

# The long shadow of childhood: associations between parental social class and own social class, educational attainment and timing of first birth; results from the ONS Longitudinal Study

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## INTRODUCTION

In September 2004, linkage of data from the 2001 Census to the ONS Longitudinal Study (ONS LS) was successfully completed resulting in a data set including individual level information from four censuses, as well as data from vital registration sources. The availability of the new data, the length of follow-up, and other particular features of the study provide exciting new opportunities for analysing change, both over the life course and between periods, and for analysing intergenerational continuities and changes. Previous enhancements to the study resulting from the linkage of the 1981 and 1991 Census data have been reported in *Population Trends*.<sup>1,2</sup> Here we carry on this tradition by highlighting some of the augmented potential of the data and illustrating this with new results on intergenerational social mobility and parental social class and age at first birth.

## THE ONS LONGITUDINAL STUDY

The ONS LS was established in 1973 following extensive discussion about the social statistics available to analyse and understand important population and health issues, particularly mortality differences.<sup>3,4</sup> The ONS LS was designed as a record linkage study drawing together information from data routinely collected by the then Office of Population Censuses and Surveys. The initial sample was taken from the 1971 Census and was based on birthday, with those born on four days of the year constituting the sample, representing 1 per cent of the population of England and Wales. This enabled linkage with other records on which birthday was recorded, a very important consideration as the main

**In September 2004, linked data from the 2001 Census was made available in the Office for National Statistics (ONS) Longitudinal Study (a 1 per cent sample of the population of England and Wales). The study now includes information from four censuses on sample members and the people they lived with.**

**The availability of this new information, the length of follow-up and other features of the study (such as records of births and deaths to sample members) provide new opportunities for analysing change - both over the life course, between time periods, and between generations. This article illustrates the potential for analysis of continuity and change with new results on intergenerational social mobility, and on parental social class and age at first birth.**

impetus for the study had come from the need to analyse mortality in more detail. Deaths of sample members and their spouses were included in the study as were births to female and, initially, male sample members. As well as including data from the census records of LS members, the ONS LS includes information about other people in sample members' households at the time of each census. An important feature of the design was the decision to continuously update the ONS LS by including immigrants and new births with an LS birthday. This means that the ONS LS has remained representative of the population and can be used to make comparisons between time periods, as well as undertake longitudinal analyses of sample members' changing life circumstances. A major strength of the ONS LS is its size; as it includes over 500,000 members at any one time point it allows analyses of population sub-groups which are not feasible in any other longitudinal study in the UK.

ONS has invested considerable resources in maintaining high linkage rates, both to vital registration data (via the National Health Service Central Register) and between censuses. Although some attrition and some linkage failure are inevitable, these rates compare very favourably with those from other studies.<sup>4</sup> The ONS LS has been used in a very wide range of research on, for example: inequalities in mortality; differentials in cancer incidence and survival; childhood circumstances and later health; differentials in fertility; transitions in the living arrangements of older people and other aspects of change in older people's circumstances; family and household change; ethnicity and employment; and social and geographic mobility.<sup>6</sup>

The ONS LS constitutes an invaluable resource for academic and policy-related analyses and, in recognition of this, special arrangements have been made to allow access to the data by academic and other researchers, while ensuring that strict confidentiality requirements are met. These arrangements include funding by the Economic and Social Research Council (ESRC), with additional resource from ONS and the Joint Information Systems Committee (JISC), for a support unit designed to provide an interface to the data for researchers within the UK Higher and Further Education sector. The first support unit, the Social Statistics Research Unit, was established in 1986 at City University, London. Currently this support is provided by the Centre for Longitudinal Study Information and User Support (CeLSIUS) at the London School of Hygiene and Tropical Medicine, which is funded as part of the ESRC/JISC Census programme. Non-academic researchers also have access to the data via the ONS LS Development Team.

## NEW OPPORTUNITIES ARISING FROM THE 2001 LINKAGE

The 2001 Census included new questions on religion, self-rated health and caregiving; more detailed information on relationships of people living in the household; expanded questions on housing and amenities and, for the first time, a question on educational qualifications that covered lower level qualifications (GCSE or equivalent). These enhancements themselves present new opportunities. Additionally, as in 1991 (but not earlier), the 2001 Census included questions on limiting long-term illness and on ethnicity providing the opportunity to analyse, for example, transitions in health status. Already, researchers are taking advantage of the opportunities provided by these new data. Projects underway include work on: changes in the reporting of ethnicity between 1991 and 2001; ethnic variations in social mobility; changes in health status 1991–2001; and analysis of the antecedents of those who reported themselves as caregivers in 2001.<sup>6</sup>

Apart from the new information included in the 2001 Census, the availability of data spanning thirty years for those included in the original sample presents new opportunities for life course analyses, including analysing links between childhood circumstances and adult circumstances among younger sample members. Because the LS includes

information on all those living with sample members, for those who were living with their parents in 1971, we can compare their circumstances in early and mid adulthood with those of their parents recorded during the LS member's childhood. Here we exploit this opportunity firstly to compare the social class of LS members aged 36–45 in 2001 (who would have been aged 6–15 in 1971) with that of their parents in 1971. We also look at the educational qualifications of these adults by parental social class. We secondly take advantage of the linked fertility data included in the LS to look at age at first birth among female LS members who were aged 5–9 in 1981 by the social class of their parents at that point in time and highlight the utility of the new information on educational status to examine differentials in the educational qualifications of women by age at first birth.

A system of editing and imputation was used in the 2001 Census, called the Edit and Donor Imputation System (EDIS).<sup>5</sup> This system allows for the calculation of values for missing and inconsistent data so that there is a valid value for all records, if appropriate. The scheme involved a two-stage process. Edits were made for variables with a 'non-response' (out of range, no response, inadequately described, multiple ticks) and for some non-response a specific value was given. Where there were still missing values, a value was taken from a donor household with matching characteristics (the imputation stage). Imputed values have been flagged in the LS and so it is possible to undertake analysis with or without imputed values. Edited values, however, have not been flagged. People and households that were imputed as part of the One Number Census process are not included in the LS. The tables in this article have been produced without imputed values.

## INTERGENERATIONAL SOCIAL MOBILITY AND STABILITY

Social mobility has been a major pre-occupation of sociological research and policy discourse for much of the 20th century and to date. Additionally there is considerable policy and research interest in gender differentials in attainment of higher status professional roles. Data from the ONS LS have been used in a wide range of studies on social mobility, including research on the possible role of social mobility in accounting for health inequalities,<sup>7</sup> associations between social and geographical mobility,<sup>8</sup> the gender dimension in social mobility<sup>9</sup> and some work on intergenerational social mobility patterns in young people.<sup>10</sup>

Understanding processes of upward and downward social mobility requires detailed theoretical and empirical work on complex issues, such as the transmission of cultural values about educational and work-related achievement and gender roles, inequalities in access to education, and biological influences on intelligence. A prerequisite of such detailed studies is sound information on patterns of social mobility and even more so, on intergenerational social mobility transitions. Here we provide some of this information by examining the social class of people aged 36–45 in 2001 in relation to the social class of their parents in 1971. Additionally we consider the effect of family circumstances by comparing those living with two parents in 1971 (when they were aged 6–15) with those living with one parent only.

Table 1 shows the social class of LS members aged 36–45 in 2001 by parental social class in 1971, gender, and whether they lived with one or two parents in 1971. Registrar General's Social Class was used, instead of the newer National Statistics Socio-economic Classification, in order to enable comparisons between 1971 and 2001.<sup>11</sup> This, and subsequent, analyses are restricted to those enumerated at their usual address and in a private (non-institutional) household at both time points. For those LS members living with two parents in 1971, the parental social class shown is that of the parent with the higher status occupation. As would be expected, there were no gender differences in the distribution of LS members by parental social class in 1971. Thus, for example, just over a third of both men and women who had lived with two parents

Table 1

**Social Class of LS members aged 36–45 in 2001, by gender, social class of parent in 1971 and by whether one or two parents present in 1971**

Parental social class in 1971		LS member's social class in 2001							Total = 100 per cent	
		I&II	IIIN	IIIM	IV&V	Unemployed	Other Inactive	Total = 100 per cent		
								Per cent	Number	
<b>Men living with two parents in 1971</b>										
<b>I &amp; II</b>										
Professional /	Row (per cent)	59.2	10.3	17.1	6.6	2.2	4.6	100.0	7,060	
Managers	Col (per cent)	41.6	30.1	18.0	15.2	18.3	18.2	28.4		
<b>IIIN</b>										
Skilled non-manual		46.2	12.3	24.7	9.0	2.6	5.4	100.0	3,917	
		18.0	19.9	14.4	11.4	11.9	11.8	15.7		
<b>IIIM</b>										
Skilled manual		31.0	8.9	34.1	14.9	3.6	7.5	100.0	8,596	
		26.5	31.6	43.5	41.8	37.2	36.1	34.5		
<b>IV &amp; V</b>										
Part skilled / Unskilled		26.8	8.6	31.6	18.7	4.4	10.0	100.0	4,268	
		11.4	15.2	20.0	25.9	22.6	24.0	17.1		
<b>Unemployed</b>										
		21.3	6.1	27.8	18.1	8.3	18.3	100.0	722	
		1.5	1.8	3.0	4.3	7.2	7.4	2.9		
<b>Other inactive</b>										
		32.5	9.3	23.9	13.7	7.2	13.4	100.0	335	
		1.1	1.3	1.2	1.5	2.9	2.5	1.4		
<b>Total = 100 per cent</b>										
<b>Number</b>										
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	24,898	
		10,057	2,408	6,738	3,075	838	1,782			
Parental social class in 1971		LS member's Social Class in 2001							Total = 100 per cent	
		I&II	IIIN	IIIM	IV&V	Unemployed	Other Inactive	Total = 100 per cent		
								Per cent	Number	
<b>Men living with single parent in 1971</b>										
<b>I&amp;II</b>										
Professional/	Row (per cent)	43.2	11.4	21.6	10.8	5.4	7.6	100.0	185	
Managers	Col (per cent)	12.6	11.7	6.6	7.4	10.4	5.9	9.1		
<b>IIIN</b>										
Skilled non-manual		41.9	12.2	24.7	9.3	2.9	9.0	100.0	279	
		18.5	19.0	11.3	9.6	8.3	10.5	13.7		
<b>IIIM</b>										
Skilled manual		31.6	4.3	32.5	14.8	5.3	11.5	100.0	209	
		10.4	5.0	11.1	11.4	11.5	10.0	10.3		
<b>IV &amp; V</b>										
Part skilled / Unskilled		25.3	10.6	33.3	14.0	6.2	10.6	100.0	435	
		17.4	25.7	23.7	22.4	28.1	19.3	21.4		
<b>Unemployed</b>										
		23.6	8.5	33.0	15.1	4.7	15.1	100.0	106	
		4.0	5.0	5.7	5.9	5.2	6.7	5.2		
<b>Other inactive</b>										
		28.8	7.4	31.1	14.5	4.3	14.0	100.0	816	
		37.1	33.5	41.6	43.4	36.5	47.7	40.2		
<b>Total = 100 per cent</b>										
<b>Number</b>										
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	2,030	
		633	179	611	272	96	239			

Table 1  
continued

## Social class of LS members aged 36–45 in 2001, by gender, social class of parent in 1971 and by whether one or two parents present in 1971

Parental social class in 1971		LS member's Social Class in 2001							Total = 100 per cent	
		I&II	IIIN	IIIM	IV&V	Unemployed	Other Inactive	Per cent	Number	
<b>Women living with two parents in 1971</b>										
<b>I &amp; II</b> Professional / Managers	Row (per cent)	42.0	24.3	4.0	9.5	1.6	18.7	100.0	7,386	
	Col (per cent)	40.2	25.3	21.7	18.2	19.3	25.2	28.3		
<b>IIIN</b> Skilled non-manual	Row (per cent)	31.7	30.3	4.7	12.7	2.5	18.1	100.0	4,140	
	Col (per cent)	17.0	17.7	14.3	13.6	17.6	13.7	15.9		
<b>IIIM</b> Skilled manual	Row (per cent)	23.6	29.3	6.1	17.5	2.3	21.3	100.0	8,859	
	Col (per cent)	27.1	36.6	39.6	40.4	33.5	34.4	34.0		
<b>IV &amp; V</b> Part skilled / Unskilled	Row (per cent)	21.5	26.4	6.0	18.9	2.9	24.4	100.0	4,566	
	Col (per cent)	12.7	17.0	20.3	22.4	22.1	20.3	17.5		
<b>Unemployed</b>	Row (per cent)	17.7	21.7	5.1	19.2	3.7	32.5	100.0	723	
	Col (per cent)	1.7	2.2	2.7	3.6	4.5	4.3	2.8		
<b>Other inactive</b>	Row (per cent)	24.4	20.7	4.4	16.8	4.4	29.3	100.0	406	
	Col (per cent)	1.3	1.2	1.3	1.8	3.0	2.2	1.6		
<b>Total = 100 per cent</b> <b>Number</b>	Row (per cent)	29.6	27.2	5.2	14.8	2.3	21.0	100.0	26,080	
	Col (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
<b>Women living with single parent in 1971</b>										
<b>I &amp; II</b> Professional/ Managers	Row (per cent)	36.3	28.0	2.5	14.6	2.5	15.9	100.0	157	
	Col (per cent)	11.3	7.7	3.6	6.1	6.1	4.8	7.3		
<b>IIIN</b> Skilled non-manual	Row (per cent)	33.9	29.1	3.8	11.2	2.2	19.8	100.0	313	
	Col (per cent)	21.0	16.0	10.8	9.3	10.6	11.9	14.6		
<b>IIIM</b> Skilled manual	Row (per cent)	22.3	30.6	3.9	15.5	1.9	25.7	100.0	206	
	Col (per cent)	9.1	11.1	7.2	8.5	6.1	10.1	9.6		
<b>IV &amp; V</b> Part skilled / Unskilled	Row (per cent)	20.7	31.7	5.4	19.3	1.5	21.4	100.0	482	
	Col (per cent)	19.8	26.9	23.4	24.7	10.6	19.7	22.4		
<b>Unemployed</b>	Row (per cent)	17.5	22.7	6.2	18.6	4.1	30.9	100.0	97	
	Col (per cent)	3.4	3.9	5.4	4.8	6.1	5.7	4.5		
<b>Other inactive</b>	Row (per cent)	20.0	21.9	6.1	19.6	4.5	27.9	100.0	895	
	Col (per cent)	35.4	34.4	49.5	46.5	60.6	47.8	41.6		
<b>Total = 100 per cent</b> <b>Number</b>	Row (per cent)	23.5	26.5	5.2	17.5	3.1	24.3	100.0	2,150	
	Col (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Study population: LS members aged 6 to 15, present at 1971 and 2001 Census, living with at least one parent in a private household at 1971.

Those with age and sex discrepancies and complex enumerations at 2001 Census were dropped.

Table does not include LS members with imputed values of variables used in the analysis.

Parental social class employs Registrar General's classification and is based on whichever is higher of father's/mother's social class.

Armed forces were excluded.

Social class at 2001 has been derived using an approximation for social class produced by David Rose and David Pevalin at the Institute for Social & Economic Research (ISER) at the University of Essex, using SOC2000 and employment status (supervisor status, size of establishment, employment type and manager status). A look-up table is available at [www.iser.essex.ac.uk/nssec/derivations.php](http://www.iser.essex.ac.uk/nssec/derivations.php).

The derived social class variable at the 2001 Census is not part of the LS database and is currently being quality assured.

in 1971 had a parent (or parents) who were from Social Class III M – skilled manual workers (35 per cent of men, 34 per cent of women). The proportions of LS members in these age groups who had lived with a lone parent in 1971 were small; (6.3 per cent of these sample members had been living with a lone mother and 1.3 per cent with a lone father). Of these, 10 per cent had a parent who had been a skilled manual worker and around 40 per cent a parent who was economically inactive.

The distribution of LS members' own occupational social class in 2001, however, varied considerably by gender, as would be expected. Among women, 21 per cent of those who had lived with two parents in 1971, and 24 per cent of those from a lone-parent family, were economically inactive in 2001. Furthermore, 30 per cent of women from two-parent families, and 24 per cent of those from lone-parent families, were in professional and managerial occupations (Social Classes I and II). Among men the percentages economically inactive were much lower (8 per cent and 12 per cent of those from two- and one-parent families respectively) and the percentages in professional occupations higher (40 per cent and 31 per cent respectively).

Comparing the marginal distributions of LS members' own social class in 2001 for men from two parent families with that of their parents (generally fathers) in 1971 shows the effect of changes in the labour market over the intervening period. There were higher proportions of LS members working in professional and managerial occupations and lower proportions in skilled, part-skilled or unskilled manual jobs compared with their parents. For example, 40 per cent of men aged 36–45 in 2001 who had lived with two parents in 1971 had Social Class I or II jobs compared with 28 per cent of their parents with Social Class I or II occupations. Among the sons, however, 27 per cent had a skilled manual occupation themselves and 35 per cent a parent from a skilled manual occupation.

The general pattern of association shows a positive relationship between parental social class and the LS member's social class. This is most easily seen for LS members who were living with two parents as a child in 1971. For example, 42 per cent of male LS members in a professional or managerial occupation had a parent who had also been in these classes in 1971 while only 11 per cent had a parent who was a part-skilled or unskilled worker (Social Classes IV and V). Conversely, 15 per cent of LS men who themselves had a part-skilled or unskilled occupation had a parent from Social Classes I or II while 26 per cent had a parent from the same social class as themselves. However, out of all the 4,268 men (living with two parents in 1971) who had a parent from Social Class IV or V, only 19 per cent were themselves in this class in 2001.

Looking further at the distribution of men by social class in 2001 also shows some effect of family type in 1971. Thus, 28 per cent of men who had lived with two parents in 1971 had a parent from a professional or managerial occupation and, of these, 59 per cent were in the same social class. A much lower proportion of men from lone-parent families had a parent with a professional or managerial occupation (9 per cent) and of those from this background, a lower proportion (43 per cent) were themselves in professional or managerial positions.

These relationships were less clear for female than male LS members as females aged 36 to 45 years were more likely to be classified as economically inactive. However, the same pattern of an increased likelihood of being in a high social class if one's parents were in a high social class is evident. For example, 42 per cent of daughters from two parent Social Class I or II families had Social Class I or II occupations themselves compared with 19 per cent of equivalent daughters with a parent from Social Class IV or V. Again there were differences between women who had lived with one parent in 1971 and those who had then lived with two parents. Thus, as with the men, a much lower proportion of women from lone-parent families had a professional or managerial

parent (7 per cent) and only 36 per cent of daughters from one-parent Social Class I or II families had Social Class I or II occupations themselves (compared with 42 per cent of those from two-parent families).

## PARENTAL SOCIAL CLASS AND EDUCATIONAL ATTAINMENT

One reason for the continuing influence of parental occupation on the occupations of their children is the effect of family background on educational opportunity and attainment. Table 2 explores this transference of human or cultural capital further by examining the parental social class of LS members aged 3 to 16 years in 1981 by their own educational level in 2001, when they were aged 23 to 36 years.

Looking first at the distribution of men and women by educational qualifications reveals that gender differences are very slight. For example, just over a quarter of both men and women aged 23–36 in 2001 who had lived in two-parent families in 1971, had a degree, and the proportions with no qualifications were also virtually identical (11 per cent of men and 9 per cent of women). This shows that some aspects of inequality have narrowed over time as, in the older population, there are marked differences in the qualification levels of men and women.<sup>12</sup> However, parental social class clearly continues to be strongly associated with educational attainment. While it is true that, for example, 14 per cent of men in the LS sample with two parents from Social Classes IV or V achieved higher education qualifications, this proportion was only a third of that for LS members whose parents were in the highest social classes (43 per cent). Among LS members who were in two-parent families in 1981, 57 per cent of men and women with a degree had a parent from Social Class I or II compared with 36 per cent of all the men and 34 per cent of all the women in the study group from two-parent families in 1981. By contrast, only 7 per cent of men from two-parent families who had a degree had a parent from Social Class IV or V, compared with 14 per cent of all men who were from this background.

Of men with no qualifications, 14 per cent had a parent from a professional or managerial occupation and 14 per cent a parent who had been unemployed. Of women with no qualifications, 11 per cent had a parent from a professional or managerial occupation, and a slightly higher proportion (17 per cent) a parent who had been unemployed. Whereas, in the whole sample of LS members from two-parent families, those with a professional or managerial parent outnumbered those with an unemployed parent by nearly 7:1.

The effect of family background is also evident if the achievement of children from lone-parent families is compared with that of children from two parent families in 1981. For example, among men, 27 per cent of those living in a two parent family in 1981 gained higher educational qualifications and 11 per cent had no qualifications; comparable percentages among those from lone-parent families were 19 and 17 per cent. However, differences appear much less marked when parental social class is also considered. For example, 43 per cent of men from a two parent Social Class I or II background obtained a higher qualification compared with 39 per cent of men from a lone parent Social Class I or II family.

## PARENTAL SOCIAL CLASS AND AGE AT FIRST BIRTH

As already noted, the LS includes information from vital registration, as well as the Census, and here we exploit these data to examine age at first birth among the 13,410 women in the LS sample who were aged 5–9 in 1981, traced in the NHS Central Register (NHSCR) in 1981 and still in the sample twenty years later, aged 25–29 in 2001. These ages were selected as these women would have finished their education.

Table 2

**Educational level of LS member (aged 23 to 36 years) in 2001 by gender, parental social class in 1981 and by whether one or two parents present in 1981**

Parental social class in 1981		LS member's highest qualification level in 2001							Total = 100 per cent	
		None	I	2	3	4/5	Other	Per cent	Number	
<b>Men living with two parents in 1981</b>										
<b>I&amp;II</b>										
Professional/ Managers	Row (per cent)	4.2	19.1	21.4	10.1	42.8	2.3	100.0	11,415	
	Col (per cent)	13.6	26.0	32.7	40.3	57.4	19.7	35.5		
<b>IIIN</b>										
Skilled non-manual		7.4	28.8	25.9	9.8	23.9	4.1	100.0	5,411	
		11.4	18.6	18.8	18.5	15.2	16.8	16.9		
<b>IIIM</b>										
Skilled manual		14.8	31.0	24.5	8.3	16.0	5.5	100.0	8,918	
		37.4	32.9	29.2	25.6	16.7	36.7	27.8		
<b>IV &amp; V</b>										
Part skilled / Unskilled		17.8	31.8	23.3	7.6	14.0	5.5	100.0	4,373	
		22.0	16.6	13.6	11.6	7.2	18.2	13.6		
<b>Unemployed</b>										
		28.1	25.2	21.0	6.3	13.7	5.8	100.0	1,661	
		13.2	5.0	4.7	3.6	2.7	7.2	5.2		
<b>Other inactive</b>										
		24.7	22.1	24.1	3.5	20.1	5.5	100.0	344	
		2.4	0.9	1.1	0.4	0.8	1.4	1.1		
<b>Total = 100 per cent</b>		11.0	26.1	23.3	9.0	26.5	4.1	100.0		
<b>Number</b>		3,535	8,382	7,482	2,876	8,516	1,331	100.0	32,122	
<b>Men living with single parent in 1981</b>										
<b>I&amp;II</b>										
Professional/ Managers	Row (per cent)	6.4	19.6	20.9	10.3	39.1	3.8	100.0	532	
	Col (per cent)	4.4	8.5	10.7	14.6	23.9	9.6	11.9		
<b>IIIN</b>										
Skilled non-manual		9.0	27.5	25.4	10.2	25.4	2.6	100.0	626	
		7.2	14.1	15.4	16.9	18.3	7.7	14.0		
<b>IIIM</b>										
Skilled manual		15.8	29.9	24.1	10.4	13.2	6.5	100.0	431	
		8.8	10.6	10.1	11.9	6.6	13.4	9.6		
<b>IV &amp; V</b>										
Part skilled / Unskilled		19.2	30.3	26.2	5.8	13.9	4.7	100.0	816	
		20.3	20.3	20.7	12.4	13.0	18.2	18.2		
<b>Unemployed</b>										
		25.8	25.8	22.4	6.2	13.7	6.2	100.0	322	
		10.7	6.8	7.0	5.3	5.1	9.6	7.2		
<b>Other inactive</b>										
		21.4	27.6	21.3	8.4	16.4	5.0	100.0	1,755	
		48.5	39.7	36.2	38.9	33.1	41.6	39.2		
<b>Total = 100 per cent</b>		17.3	27.2	23.1	8.4	19.4	4.7	100.0		
<b>Number</b>		773	1,219	1,034	378	869	209	100.0	4,482	

Table 2  
continued

## Educational level of LS member (aged 23 to 36 years) in 2001 by gender, parental social class in 1981 and by whether one or two parents present in 1981

Parental social class in 1981		LS member's highest qualification level in 2001							Total = 100 per cent	
		None	I	2	3	4/5	Other	Per cent	Number	
<b>Women living with two parents in 1981</b>										
<b>I&amp;II</b>										
Professional/Managers	Row (per cent)	3.0	17.4	24.8	10.6	43.3	1.1	100.0	11,893	
	Col (per cent)	11.0	23.3	31.3	39.5	56.8	16.4	34.4		
<b>IIIN</b>										
Skilled non-manual		5.7	28.3	29.6	9.5	25.2	1.7	100.0	5,737	
		10.1	18.3	18.0	17.2	15.9	13.1	16.6		
<b>IIIM</b>										
Skilled manual		11.4	30.9	30.3	8.7	15.8	2.9	100.0	9,454	
		33.4	32.9	30.4	25.7	16.5	36.5	27.4		
<b>IV &amp; V</b>										
Part skilled / Unskilled		16.6	31.8	26.9	7.7	13.7	3.3	100.0	5,032	
		25.8	18.0	14.4	12.1	7.6	21.8	14.6		
<b>Unemployed</b>										
		27.0	27.0	22.9	7.4	11.7	3.9	100.0	1,998	
		16.7	6.1	4.9	4.7	2.6	10.2	5.8		
<b>Other inactive</b>										
		23.4	29.4	22.7	6.7	14.1	3.6	100.0	418	
		3.0	1.4	1.0	0.9	0.7	2.0	1.2		
<b>Total = 100 per cent</b>		9.4	25.7	27.3	9.2	26.3	2.2	100.0		
<b>Number</b>		3,233	8,869	9,414	3,182	9,072	762	100.0	34,532	
<b>Women living with single parent in 1981</b>										
<b>I&amp;II</b>										
Professional/Managers	Row (per cent)	4.7	19.8	22.5	12.7	38.5	1.9	100.0	637	
	Col (per cent)	3.3	8.5	10.9	19.8	27.0	6.6	12.3		
<b>IIIN</b>										
Skilled non-manual		7.2	29.1	28.9	8.8	22.6	3.5	100.0	776	
		6.2	15.3	17.1	16.6	19.3	14.8	15.0		
<b>IIIM</b>										
Skilled manual		17.2	38.2	25.6	5.0	10.3	3.8	100.0	477	
		9.1	12.3	9.3	5.9	5.4	9.8	9.2		
<b>IV &amp; V</b>										
Part skilled / Unskilled		17.0	32.7	26.0	7.8	12.0	4.5	100.0	934	
		17.7	20.7	18.5	17.8	12.4	23.0	18.0		
<b>Unemployed</b>										
		28.0	27.5	23.2	5.1	11.6	4.6	100.0	371	
		11.5	6.9	6.5	4.6	4.7	9.3	7.2		
<b>Other inactive</b>										
		23.5	26.8	24.8	7.3	14.2	3.4	100.0	1,997	
		52.2	36.3	37.8	35.4	31.2	36.6	38.5		
<b>Total = 100 per cent</b>		17.4	28.5	25.3	7.9	17.5	3.5	100.0		
<b>Number</b>		901	1,477	1,314	410	907	183	100.0	5,192	

Study population:

LS members aged 3 to 16 in 1981, present at 1981 and 2001 Census, living with at least one parent in a private household in 1981. Armed forces were excluded. Those with age and sex discrepancies and complex enumerations at 2001 Census were dropped. Table does not include LS members with imputed values of variables used in the analysis.

Qualification level:

Level 1: 1-4 O levels/CSE/GCSE (any grades), NVQ level 1, Foundation GNVQ

Level 2: 5+ O levels, 5+ CSEs (grade 1), 5+ GCSEs (grades A-C), 1 A level/ 1-3 AS levels, NVQ level 2, Intermediate GNVQ

Level 3: 2+ A levels, 4+ AS levels, Higher School Certificate, NVQ level 3, Advanced GNVQ

Level 4/5: First degree, Higher degree, NVQ levels 4-5, HNC, HND. Qualified Teacher status, Qualified Medical Doctor, Qualified Dentist, Qualified Nurse, Midwife, Health Visitor

Other qualifications/ level unknown: Other qualifications (eg City and Guilds etc), Other Professional qualifications.

Table 3

## Female LS members (per cent) aged 5 to 9 years in 1981 by parental social class in 1981 and age at first birth (births up to 2001)

Parental social class in 1981		Age at first birth					
		No children by 2001	age < 20	age 20–24	age 25–29	Total = 100 per cent	
						Per cent	Number
<b>I&amp;II</b>							
Professional/ Managers	Row (per cent) Col (per cent)	72.5 39.1	5.2 12.3	12.4 19.7	9.9 31.4	100.0 31.0	4,163
<b>IIIN</b>							
Skilled non-manual		65.1 16.9	8.1 9.3	16.4 12.5	10.5 15.8	100.0 14.9	2,000
<b>IIIM</b>							
Skilled Manual		52.9 24.3	14.5 29.4	22.3 30.3	10.2 27.4	100.0 26.4	3,543
<b>IV &amp; V</b>							
Part skilled / Unskilled		45.6 11.4	18.1 19.9	26.1 19.3	10.2 14.9	100.0 14.4	1,930
<b>Unemployed</b>							
		34.9 4.2	30.4 15.9	26.9 9.5	7.8 5.5	100.0 6.9	919
<b>Other inactive</b>							
		38.7 4.3	27.1 13.2	26.4 8.7	7.7 5.0	100.0 6.4	855
<b>Total = 100 per cent</b>		57.6 100.0	13.1 100.0	19.5 100.0	9.8 100.0	100.0 100.0	
<b>Number</b>		7,729	1,752	2,609	1,320		13,410

Study population: LS members aged 5 to 9 at 1981, traced in NHS Central Register (NHSCR) at 1981 and present at 1981 and 2001, living with at least one parent in a private household at 1981. Age and sex discrepancies and complex enumerations at 2001 dropped. Table does not include LS members with imputed values of variables used in the analysis.

Parental social class employs Registrar General's classification and is based on whichever is higher of father's/mother's social class. Armed forces were excluded.

Table 4

## Female LS members (per cent) aged 5 to 9 years in 1981 by age at first birth and educational level in 2001

Highest Qualification		Age at first birth					
		No children by 2001	age < 20	age 20–24	age 25–29	Total = 100 per cent	
						Per cent	Number
<b>No qualifications</b>	Row (per cent) Col (per cent)	20.7 3.4	46.0 34.1	26.9 13.2	6.4 6.0	100.0 9.5	1,271
<b>Level 1</b>		40.1 15.2	16.3 28.1	30.6 34.8	13.0 28.6	100.0 22.0	2,948
<b>Level 2</b>		53.5 24.7	12.6 26.4	22.7 31.3	11.1 29.6	100.0 26.7	3,575
<b>Level 3</b>		69.8 11.9	4.7 3.6	15.2 7.8	10.3 10.1	100.0 9.8	1,320
<b>Level 4/5</b>		85.2 43.4	1.4 3.2	5.5 8.4	7.9 23.2	100.0 29.5	3,951
<b>Other</b>		33.0 1.5	23.0 4.6	34.7 4.6	9.3 2.4	100.0 2.6	343
<b>Total = 100 per cent</b>		57.9 100.0	12.8 100.0	19.3 100.0	10.0 100.0	100.0 100.0	
<b>Number</b>		7,761	1,714	2,591	1,342		13,408

Study population: LS members aged 5 to 9 at 1981, traced in NHS Central Register (NHSCR) at 1981 and present at 1981 and 2001, living in a private household at 1981. Age and sex discrepancies and complex enumerations at 2001 dropped. Table does not include imputed values.

## Qualification level

Level 1: 1-4 O levels/CSE/GCSE (any grades), NVQ level 1, Foundation GNVQ

Level 2: 5+ O levels, 5+ CSEs (grade 1), 5+ GCSEs (grades A-C), 1 A level/ 1-3 AS levels, NVQ level 2, Intermediate GNVQ

Level 3: 2+ A levels, 4+ AS levels, Higher School Certificate, NVQ level 3, Advanced GNVQ

Level 4/5: First degree, Higher degree, NVQ levels 4-5, HNC, HND. Qualified Teacher status,

Qualified Medical Doctor, Qualified Dentist, Qualified Nurse, Midwife, Health Visitor

Other qualifications/ level unknown: Other qualifications (eg City and Guilds etc), Other Professional qualifications.



Table 3 shows that 58 per cent of these women had not had a child by 2001 (when they were aged 25–29). Thirteen per cent had had their first child before the age of 20, 20 per cent between the ages of 20 and 24 and the remaining 10 per cent had their first child between the ages of 25 and 29. Of those who became mothers in their teens, a group of particular interest, 12 per cent had a parent from a professional or managerial group and 29 per cent a parent or parents who were unemployed or economically inactive in 1981. Equivalent proportions among women who had their first child when aged 25–29 were 31 per cent and 11 per cent. The proportion still childless varied markedly by parental social class and employment status. Thus 73 per cent of daughters of a Social Class I or II parent had not had a child by 2001 compared with 46 per cent of daughters of a Social Class IV or V parent and 39 per cent of daughters of economically inactive parents.

#### *Age and first birth and educational achievement*

Education is known to be strongly associated with family building patterns, with more highly educated women having a later fertility pattern than those with less advanced qualifications. In Table 4 we examine the same group of women (those aged 5 to 9 in 1981, traced in NHSCR in 1981 and still in the sample in 2001) to look at variations in their distribution by educational qualification level and age at first birth.

As can be seen in Table 4, there is a strong association between educational qualification level and having had a child by 25–29, and by age at first birth. Among women with no educational qualifications 46 per cent had their first child in their teens, 27 per cent between the ages of 20 and 24 and only 21 per cent had not yet had a child. Among those with a degree or equivalent qualification, 85 per cent had not had a child, 1 per cent had a birth when a teenager and only 6 per cent had their first baby in their early twenties.

In the case of women becoming mothers very early, having the child may disrupt education and reduce the chances of obtaining a qualification. However, the 2001 educational indicator allows identification of qualifications normally gained at age 15 or 16 (CSEs, GCEs and GCSEs) and very few of the sample we consider had a child before this age. Although having a teenage birth may reduce opportunities for higher level study, results from other studies indicate that much of the direction of the causation is the other way, that is, women with more advantaged early backgrounds and more interest in and opportunities for pursuing education defer family building.<sup>13</sup> This analysis could be extended to adjust for social background (that is, parent's social class) when looking at the impact of educational achievement on family building patterns.

## CONCLUSIONS

These descriptive results show clearly that the occupation, education and family building patterns of young and middle aged adults still appear to vary considerably by parental social class. Those with parents who had a professional or managerial occupation when they were children were the most likely to themselves have this type of occupation in early mid life, particularly if they came from a two- rather than a one-parent family. Parental social class was strongly associated with educational attainment, which is an important determinant of occupational opportunity. In 2001 over half of all young adults aged 23–36 who were in two parent families in 1981 who had a degree or equivalent had a parent from Social Classes I or II compared with only 7 per cent of those whose parent had a Social Class IV or V occupation in their childhood. Fewer than 5 per cent of children of two-parent families whose parent was from a professional or

managerial occupation (4 per cent of men and 3 per cent of women) had no qualifications, compared with over a quarter of those whose parents were unemployed when they were aged 3–16 (28 per cent of men and 27 per cent of women). However, more progress seems to have been made in achieving gender equality, at least in education, and in this group of young adults, there were no differences between men and women in the level of educational attainment.

Among young women aged 25–29 whether or not they had had a child varied considerably by parental social class, as did age at first birth. Nearly three-quarters of the daughters of professional and managerial parents had not had a child by age 25–29 compared with fewer than half of the daughters whose parent had a partly skilled or unskilled occupation when they were aged 5–9. Results also illustrated again the marked variation in age at first birth by educational attainment.

Clearly more sophisticated multivariate analyses taking account of other relevant parameters, such as, for example, characteristics of area of residence, housing tenure and additional family characteristics in both childhood and adulthood, and health status in adulthood, would tell us more about these associations. The ONS LS provides a valuable source for work of this kind. Additionally, the dataset provides potential for a rich range of other studies now that it is enhanced with the inclusion of data from the 2001 Census. CeLSIUS provides staff and students in the UK Higher and Further education sector with support for such work, while those working for Government or other organisations are able to draw on support from the ONS LS Development Team.

All the analyses presented here are based on large tabulations of aggregated data from the ONS LS produced by the CeLSIUS team. Over the coming year these will be made more generally available over the CeLSIUS website, [www.celsius.lshtm.ac.uk](http://www.celsius.lshtm.ac.uk).

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## Key findings

The ONS Longitudinal Study is an invaluable source for examining intergenerational continuities and changes and associations between circumstances in childhood and circumstances in mid-life.

The occupation, education and family building history of young and middle-aged adults in 2001 varied considerably by parental social class:

- Men aged 36–45 in 2001 whose parents were in partly skilled or unskilled occupations (Social Classes IV and V) were less likely to be in professional or managerial occupations (Social Classes I and II) – 11 per cent – than those with parents in Social Classes I and II (42 per cent).
- Among adults who were aged 23–36 in 2001 and lived in a two-parent family twenty years earlier, those with a parent in Social Class I or II were less likely to have no educational qualifications (5 per cent) than those with a parent in Social Class IV or V (17 per cent). Differences in educational attainment between young men and women were very small.
- Women aged 25–29 in 2001 with a parent in Social Class IV or V twenty years earlier were twice as likely to have had a child (54 per cent) than those with a parent in Social Class I and II (27 per cent). By the age of 20, 18 per cent of those with a parent in Social Class IV and V had given birth, compared to only 5 per cent for Social Classes I and II.

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