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# Home Ownership and Social Mobility

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**Abstract**
This paper extends the literature on social mobility to investigate intergenerational links in home ownership, an important marker of wealth. Repeated cross sectional data show that home ownership rates have fallen rapidly over time, and in particular amongst younger people in more recent birth cohorts. We then hone in on two British birth cohorts for whom we have information on parental home ownership. Comparing the intergenerational transmission of home ownership for individuals in the 1958 and 1970 British birth cohorts, we find that home ownership for 42 year olds from the 1970 birth cohorts (in 2012) shrunk disproportionately among those whose parents did not own their own home when they were children. Using housing measures in an intergenerational setting, and bearing in mind that housing is the most important component of wealth for most people, our results reinforce a picture of falling social mobility in Britain.

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## 1. Introduction

A very large body of empirical research in social science has studied the extent to which economic and social outcomes are transmitted across generations. Some of this work studies empirical connections between the same outcomes (like earnings, income, social class or education) across generations (see Blanden, 2013, or Corak, 2013, for up to date reviews). Other research studies how the intergenerational transmission of advantage or disadvantage maps from different parental variables to child outcomes (Ermisch, Jantti and Smeeding, 2012). A further important aspect that has been studied is whether the extent of cross generation mobility is improving or worsening over time, or how it compares in different settings like across countries or across geographies within countries (Chetty et al, 2014). From this large evidence base, we now know quite a lot about settings where mobility is better or worse, and what are some of the key drivers of mobility differences (Black and Devereux, 2011).

In the economic literature, a heavy focus has been placed on earnings or income mobility, and on refining methods to accurately pin down the intergenerational earnings or income elasticity that measures how sensitive earnings or income of children (as adults) are to their parents' earnings or income (Blanden, 2015; Solon, 1999). Much less research has focussed on intergenerational wealth correlations, at least in part because data on the wealth holdings of children and adults is far less frequently available to researchers.[1]

Housing is now one of the largest components of overall wealth in advanced societies, and in fact is often the largest except for some people who hold large personal pensions. Given that data on housing assets of children and parents is present in a number of longitudinal data sources, it may thus seem surprising that study of intergenerational correlations in home

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[1] Exceptions to this are Menchik (1970), Mulligan (1997), Piketty (2000) Charles and Hurst (2003) and Black et al (2015).

ownership has to date not formed a major research focus.[2] We attempt to rectify that in this paper by presenting evidence from Britain on intergenerational housing correlations and how they have changed across different birth cohorts.

Studying intergenerational housing correlations in Britain takes on an additional importance when one considers what has happened to patterns of home ownership over time. The data show that home ownership rates have fallen rapidly over time, and in particular amongst younger people in more recent birth cohorts whose rates of owner occupation are considerably lower than for older birth cohorts (Griffith, 2011; Cribb et al, 2016; Clarke et al, 2016).

In this paper we first document these patterns of change across birth cohorts. We then move on to connect the nature of change to the home ownership patterns of parents. The first evidence we report shows there to be a strong intergenerational persistence of home ownership. Next we move on to show this has strengthened significantly through time and has been an important factor behind the inability of more recent cohorts to get on the housing ladder. The increased cross generation persistence of home ownership is in line with a rising intergenerational correlation in wealth in Britain in recent decades. As this is based on comparisons of age 42 home ownership patterns in 2000 and 2012, the key finding of a strengthening intergenerational link in home ownership provides new evidence of declining social mobility that has been occurring in the very recent past.

The rest of the paper is structured as follows. Section 2 first provides descriptive background information for the Survey of English Housing on changes in the housing market. It then shows regression based estimates of models of home ownership where we decompose

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[2] One notable exception is Jenkins and Maynard (1983) who investigate this issue using data from the Rowntree Study of families in York, with the second generation observed in the late 1970s.

age, cohort and time effects to identify the specific influence of being born in more recent generations as distinct from lifecycle effects and aggregate trends. Section 3 moves on to the intergenerational aspect, using British birth cohort data to consider empirical connections between the housing tenure of cohort members and their parents. This enables us to explore how inequalities in access to home ownership in one generation are transmitted to the next. Section 4 offers a discussion and interpretation of the results, placing a particular focus on how changing patterns of home ownership link to trends in social mobility, as measured across various dimensions. Section 5 then concludes.


## 2. Cross Cohort Changes in Home Ownership

*Survey of English Housing Data*

To first understand broad patterns of home ownership by cohort we use the English Housing Survey (EHS) and its forerunner the Survey of English Housing (SEH). The SEH ran from 1993/94 to 2007/08, while the EHS began in 2008/09 as it replaced the Survey of English Housing and the English House Condition Survey. The most recent complete data from the English Housing Survey is available for 2013/14. Both data sources contain information on housing tenure, personal characteristics and income. However, there are some differences. The SEH had a stratified sampling methodology where postcodes were selected randomly and households were then selected at random within these postcodes. The SEH also attempted to survey all dwellings at the selected address and all households within a dwelling. In contrast, the English Housing Survey randomly sampled all private addresses and selected one household per address. In both cases the head of household or household reference person is sampled and they provide information on all others within the household. The number of observations in the SEH fell from 20,300 in 1993/94 to 15,600 in 2007/08. The English

Housing Survey started with a sample of 17,700 in 2008/09 before being reduced to just over 13,000 in 2010/11 and subsequently remaining at this level. Sampling weights are applied to all of the analysis.

*Descriptive Trends*

Figure 1 uses these data to provide information on patterns of home ownership in England by birth cohort. It shows that trends in home ownership differ quite markedly by cohort, with successive cohorts becoming less likely to buy. The rate of home ownership of the youngest group of 20-29 year olds has declined very steeply over time, from 50 percent of this group owning their own homes in 1993, to only 20 percent doing so in the most recent survey. The decline among those in their 30s started later, but has been similarly steep from 2000, falling from 70 to 47 percent over 13 years. For those in their 40s the decline has only started recently, with rates falling from 74 to 59 percent. Indeed, the over 50s also experience a decline in owner occupancy rates, post 2007, in the aftermath of the Great Recession.

Figure 2 demonstrates the presence of these important cohort effects even more clearly, comparing age groups between birth cohort decades. As we do not have enough years of data to follow cohorts completely through the lifecycle the picture is by necessity incomplete. To minimise biases from this we only include information from age-cohort cells where the full age-range is available in the data. Despite being partial the pattern revealed is very clear, comparing subsequent decade cohorts at the same age reveals that the probability of buying a home has declined for each cohort after those born in the 1940s and that this decline has speeded up markedly for those born in the 1970s and 1980s.

*Age, Cohort and Time Effects*

The difficulty in disentangling age, cohort and time effects is well known among empirical social science researchers. For example, the patterns revealed in Figure 1 are likely

to be, at least in part, a consequence of time effects as younger cohorts are observed in more recent years. To pull out such patterns from data requires that more structure is placed on the question. To do this, we decompose owner occupation (OO) for an individual (i) belonging to a particular cohort (c) observed at a particular age (a) in a particular survey year (t) as a sum of age, cohort and time effects (respectively $\alpha_a$, $\alpha_c$ and $\alpha_t$) and an individual error (u):

$$OO_{icat} = \alpha_a + \alpha_c + \alpha_t + u_{icat} \tag{1}$$

It is possible to identify the three sets of effects by treating one cohort by age by survey year group as the omitted category in a fully saturated regression model. We therefore identify the remaining effects relative to individuals born in 1958, aged 42 and observed in 2000. This combination matches the profile of the first cohort we consider in the intergenerational analysis in Section 3.[3] The regression is performed on all data for those aged 20 to 69 in the SHE/EHS.

Owner occupation is also strongly influenced by family circumstances, and although these are not exogenous to the owner occupation decision, it is interesting to see if differences between cohorts can, in some sense, 'account' for cohort-based inequalities. We can therefore add controls (X) for marital status, gender, number of children and ethnicity:

$$OO_{icat} = \alpha_a + \alpha_c + \alpha_t + \beta X_{icat} + u_{icat} \tag{2}$$

In our final model we additionally control for income quintile (Income_q, q = 1 to 5) within each survey year (excluding as reference group the lowest quintile, q = 1):

$$OO_{icat} = \alpha_a + \alpha_c + \alpha_t + \beta X_{icat} + \sum_{q=2}^{q=5} \pi_q \, Income\_q_{icat} + u_{icat} \tag{3}$$

Figure 3 graphs the marginal effects from probit estimations for each cohort, with the vertical axis showing the percentage more or less likely a given cohort is to be owner occupiers

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[3] An alternative would be to have required the cohort-effects to sum to zero (Deaton, 1997).

compared with those born in 1958. Coefficient estimates from all three regression equations (1) to (3) are shown. The results indicate that the 1958 cohort (which is at 0 in the Figure because of the chosen normalisation) is one of the most advantaged in terms of their home ownership, with both older and younger cohorts having lower rates of owner occupancy, once year and age effects are controlled for.

The unconditional model (denoted by the solid line in the Figure) indicates that those born in 1925 are approximately 20 percentage points less likely to be home owners than those born in 1958. Even more striking are the patterns for younger cohorts where rates of home ownership dive steeply for those born in the 1970s. For those born in 1980, home ownership rates are around 40 percentage points lower than for those born in 1958. Estimates are rather less precise for the most recent cohorts as less data are available, but nonetheless the trend is clear.[4] The estimated cohort, age and time effects from the estimation of equation (1), together with their significance levels, are shown in Appendix Table 1. This Table indicates that, apart from negative age effects among the youngest group, cohort, rather than age or survey year, is the most powerful influence on owner occupation rates.[5]

Figure 3 also demonstrates the impact of including controls for family characteristics (long dashes) and additionally for incomes (short dashes). Adding family characteristics and income moderates the negative coefficients for the early cohorts, indicating that some of these were observed because early cohorts had other characteristics negatively correlated with owner occupation. For more recent cohorts the reverse is true for family characteristics, with effects becoming more negative once demographics are controlled for. In other words, owner

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[4] Estimating the regressions on data for cohorts born between 1945-1979 leads to very similar results for these cohorts as when the same coefficients are estimated from the full sample of data.
[5] Bottazzi et al (2015) and find that cohorts who face unfavourable housing market conditions and low ownership rates at age 30 substantially catch up by age 40. However, they can only assess this catchup for those born up to 1967. Our data suggests a far less rosy picture for the most recent cohorts after the Great Recession in 2008.

occupancy is less likely despite the younger cohorts' more favourable characteristics. Income goes slightly in the opposite direction, indicating that one of the reasons younger cohorts are less likely to buy is because their incomes are lower. Note, however, that that the impact of the controls is greatest in the youngest and oldest cohorts, for which the estimations are necessarily less precise.

The cross-time shifts in the home ownership patterns are also shown in the 3D heat map charts shown in Figure 4. These shows how the age-cohort home ownership rates altered between three sub-periods, 1993 to 1999, 2000 to 2007 and 2008 to 2015. The red markers on the Figure represent the highest home ownership rates, and the colours of the markers move to lower rates with yellow and green markers, down to the lowest levels for the blue markers. It is evident that the surface plots in the Figureboth move down across the three time periods, and also that there is a bigger density of blue markers amongst young people in the 2008 to 2015 time periods.


**3. Intergenerational Patterns of Home Ownership**

*British Birth Cohorts*

This section makes use of data from the National Child Development Study, a cohort born in 1958 and the British Cohort Study, a cohort born in 1970. The target sample for each cohort consisted of babies born in a single week, with around 18,000 included at the start. They have been followed up regularly from birth, throughout chilhood and into adulthood with the most recent surveys occuring at age 55 (in 2013) for the NCDS and age 42 (in 2012) for the BCS. These data have been extensively used to examine integenerational mobility in income (Dearden et al, 1997; Blanden et al, 2004; Gregg et al, 2016) and in social class (Erikson and Goldthorpe, 2010).

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Our analysis of social mobility will also make use of information on family income and social class, but will add to this information on household tenancy, collected at various points during childhood. As in the SEH/EHS analysis we combine outright ownership and buying with a mortgage into the category 'owner occupation'. The main outcome measure for the cohort members themselves is the equivalent measure of owner occupancy at age 42, in 2000 for the NCDS and 2012 for the BCS. It is notable that using this outcome measure increases the sample sizes and therefore representativeness of our data compared with previous studies that have relied on earnings as the main dependent variable. This is an advantage of our approach for studying intergenerational connections. Furthermore, that the age 42 measures apply to 2000 and 2012 means we are able to shed light on very recent intergenerational relationships.

Measures of parental income and social class are the same as those used in Blanden et al (2013) who examine the difference between measures of integenerational mobility in these cohorts. Parental income is measured at age 16 and is adjusted to account for differences in the format of the questions asked in the two surveys (see Blanden et al, 2013, for full details). Social class measures are based on the socio-economic group of the father's occupation, as recorded at age 11 for the NCDS and age 10 for the BCS. The schema used in both surveys is a 7-category variable: unskilled; skilled manual; lower grade technicians; self-employed; routine non-manual; lower grade managers; and professional and managerial. For sample size reasons, we aggregate the lower grade technicians and self-employed, and so study six social class groupings of cohort members and their parents below.

Our final empirical exercise further considers intergenerational mobility in a number of other proxies of wealth, alongside home ownership. Information is obtained from age 42 on whether the cohort members are self-employed with employees (uses as a proxy for whether

they own their own business) and we also pull out information from the age 33/34 questionnaire on whether they or their partners have savings or investments. Unfortunately data on total wealth is not available but we use information on family net income (based on adding up the information collected on all comparable sources: own and partner's net income, own self-employment income, other earned income, benefits and unearned income) as a broader measure of financial status. No alternative proxies of wealth are available in the parents' generation, so we relate all the additional adult outcomes to parental home ownership and income.

*Descriptive Statistics*

Table 1 provides descriptive statistics on owner occupation from the two cohorts, providing information on parents'owner occupation status when the cohort member was a child and in their own adulthood. The numbers in the Table confirm some of the trends we have already observed. There is a huge growth in owner occupancy between the generations for the NCDS (from around half of parents, to around 80 percent of children). This would be expected as we have observed the NCDS to be the most 'favoured' cohort, while their parents are likely to have been born 20 or 30 years previously when owner occupancy was less common.

For the BCS little intergenerational growth is observed. This makes sense in terms of the trends observed in Figures 1 to 4, as both the 1970 cohort and the cohorts their parents would have been from (1940-1950) had lower owner occupancy than the NCDS cohort members, with differences of a similar magnitude for those with birth years 15 years earlier and later.

Figure 5 provides the first evidence of the intergenerational association in home ownership for these cohorts. It is clear that cohort members who grew up in owner occupancy are more likely to be owner occupiers themselves. In the NCDS those with parents who were owner occupiers have an owner occupancy rate of 88 percent and those without this advantage

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have an owner occupancy rate of 74 percent, a gap of 14 percentage points. In the BCS the gap is even starker; those with parents' who were home owners have an owner occupancy rate of 80 percent and those without this advantage have an owner occupancy rate of 59 percent, a gap of 21 percentage points. It is notable that there is only a small decrease in the owner occupancy rate of those whose parents were owner occupiers – a 6 percentage point fall from 80 to 74 percent. There is a disproportionate, more than twice as big at 15 percentage points, fall in home ownership among 42 year olds whose parents did not own their own home when they were children.

Figure 6 further disaggregates by parental income, showing the difference in home ownership between those with parents who did and did not own their own homes within each parental income quintile. This enables us to get an indication of the extent to which the intergenerational tenancy effect is driven by intergenerational correlations in income, a relationship that we know has grown between the cohorts being studied (Blanden et al, 2004; Blanden et al, 2013, Gregg et al, 2016). The Figure indicates this to be partly true with members' owner occupancy rates varying strongly across parental income quintiles, and more so in the second cohort. However, intergenerational persistence in home ownership status also operates within each income quintile and this is also stronger in the BCS compared with the NCDS.

Figure 7 performs the same exercise by social class, but with rather different results. Now there is no evidence of an increasing difference in owner occupancy by social class, but there is a stark increasing association in home ownership status within social class. This makes sense as no increasing association in social class has been observed between these datasets (Erikson and Goldthorpe, 2010). The growing persistence of owner occupancy rates within these categories indicates that the measures of integenerational persistence based on these

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broad occupational groups may not reveal the full story of the changing patterns of social

mobility in these cohorts, a point we return to below.[6]

*Measuring Intergenerational Mobility in Home Ownership*

The comparison of average owner occupancy rates for cohort members from different

backgrounds indicated that there are larger gaps in home ownership by family background for

the cohort born in 1970 compared to the cohort born in 1958. We consider this more formally

by first estimating cohort specific linear probability models of the determinants of age 42 home

ownership for individual i in cohort c:

$$OO_{ic}^{child} = \gamma_c + \lambda_c OO_{ic}^{parent} + \varphi_c X_{ic} + u_{ic} \qquad (4)$$

Compared to the earlier regressions, this represents a restricted version in one dimension as we

have only two cohorts (c = 1958 and 1970) whose owner occupation rates we are considering

at the same age 42 (in the year 2000 for the 1958 cohort and in 2012 for the 1970 cohort). Thus

the age and year variation we studied before collapses down to variation between cohorts, and

as such we only have i and c subscripts contained in the notation of equation (4).

The availability of data on parental owner occupation ($OO^{parent}$), enables us to extend

our model for these cohorts and empirically study intergenerational patterns of home

ownership, and their change across cohorts. The cohort specific intergenerational estimate in

equation (4) is given by $\lambda_c = Pr[OO_{ic}^{child} = 1 | OO_{ic}^{parent} = 1, X_{ic}]$. Of course, for an unconditional

model with no X controls this is simply the mean gap shown in Figure 5. In terms of changes

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[6] Another breakdown we looked at was by parental education levels, defined as 'low', 'medium' and 'high' (low
= if both parents left school as soon as possible with minimal qualifications; medium = if at least one parent has
good secondary or post-secondary qualifications, but neither has a degree; high = if at least one parent has a
degree). As with parental income there are between and within education group effects on cohort member's home
ownership status. Home ownership in the early 40s is higher for those with better educated parents in the BCS;
particularly among parents who were not owner occupiers themselves. However, within all groups there is
evidence of parental tenure having a stronger association with cohort members' tenure in the second cohort.

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over time, across cohorts c and c', a measure of the cross cohort change is $\Delta\lambda_{c'c} = \lambda_{c'} - \lambda_c$, estimates of which we will present below.

As we have seen, the overall levels of owner occupancy are different in the two cohorts and this may affect interpretation of the observed gaps. An alternative approach is to measure the association as an odds ratio, showing the increased chance of being an owner occupier if your parents were owner occupiers compared to the case when they are not. This odds ratio is:

$$
\text{Odds}_{ic} = \frac{\Pr\left(\begin{array}{c}OO_{ic}^{child}=1|\\OO_{ic}^{parent}=1, X_{ic}\end{array}\right) \Big/ \Pr\left(\begin{array}{c}OO_{ic}^{child}=0|\\OO_{ic}^{parent}=1, X_{ic}\end{array}\right)}{\Pr\left(\begin{array}{c}OO_{ic}^{child}=1|\\OO_{ic}^{parent}=0, X_{ic}\end{array}\right) \Big/ \Pr\left(\begin{array}{c}OO_{ic}^{child}=0|\\OO_{ic}^{parent}=0, X_{ic}\end{array}\right)} \tag{5}
$$

The denominator of (5) shows how much more likely a cohort member is to be a home owner than not a home owner for the sample whose parents were home owners. The numerator provides the same statistic for the sample whose parents were not home owners. The unconditional odds ratio for the 1958 cohort is 2.55 while the odds ratio for the 1970 cohort is 2.87; thus confirming the picture of an increasing persistence in home ownership status across generations. We also discuss odds ratios (conditional on X) that can be computed from the coefficients of logistic regressions below. It turns out that very much the same story emerges from presenting estimates of the $\lambda_c$ parameters and their change over time, as comes from looking at odds ratios and their temporal evolution.

*Baseline Results*

A first set of regression results are presented in Table 2. The Table shows different estimates of equation (4) where three measures of parental home ownership are considered: home ownership when the cohort member was aged 11/10, aged 16 or either aged 11/10 or 16. In each panel of results for these, estimates from three specifications are reported, those containing no X variables (the unconditional associations we have already shown graphically

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and discussed), specifications including a base set of X's variables (gender, parental age, whether the cohort member lived with their natural/adoptive father at 11/10) and a final specification additionally controlling for cohort member maths and reading test scores, in an attempt to control for the endowment of skills that may affect a range of outcomes for them when adults. All the estimates in the Table show a consistent pattern.[7] In both cohorts, there is a significant and strong empirical connection between cohort member home ownsership and parental home ownership. This is the case for parental home ownership measured at cohort member age 11/10, age 16 or either.

The first row of each panel (specifications (1), (4) and (7)), containing unconditional estimates, makes if very clear that the magnitude of the intergnerational association is bigger for the 1970 cohort.  This translates into a strongly significant cross cohort rise in $\lambda_c$ of between 0.073 and 0.094.  The remaining models test if this result is robust to the inclusion of controls that are likely to be correlated with home ownership in both generations. Adding basic demographic controls for gender and family structure in childhood does in some cases change the estimate of $\lambda_c$ tyically making it a bit smaller, but it does so to the same extent for both cohorts, and therefore does not change the conclusion on changes over time. For example, in the most stringent models that also condition on test scores the cross cohort rise ranges between 0.068 and 0.089, with all estimates of the stregthening relationship being strongly significant.

In the Appendix Table A2, the odds ratios from equation (5) are shown for the two cohorts. The same pattern as in Table 3 is very much confirmed. The odds ratios go up a lot across the cohorts, with a range of 0.23 to 0.44 in terms of increase. Thus the estimates from the non-linear logistic models confirm the baseline regression results. There is a strong

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[7] The coefficient estimates and associated standard errors are from linear probability models. Probit marginal effects were nearly identical (almost always the same to three decimal places), and these are available on request from the authors.

persistence in home ownership across generations, and this already sizable relation has increased when studying patterns of home ownership for 42 year olds in 2000 and 2012, for the 1958 and 1970 birth cohorts.

Thus, as we shall discuss in the next section, it seems that the increase in the magnitude of the intergenerational link in home ownership is one aspect of a broader strengthening in the transmission of life chances from parents to children that occurred over this period.

## 4. Discussion and Interpretation

We see three related contributions to the social mobility literature emerging from these new results on intergenerational patterns of home ownership. The first shows the very rapid deterioration of the prospects of home ownership facing more recent birth cohorts, and a key feature of that has been whether individuals grew up in a home owned by their parents or not. The second is the strengthening of the intergenerational home ownership relationship across time and how that speaks to the (sometimes controversial) academic debates that have taken place about whether or not social mobility fell recently in Britain. Finally, our focus on the housing market allows to begin to discuss integenerational tranmissions in wealth, a relatively unexplored topic in the UK.[8]

*The Importance of Parental Home Ownership for the Cross Cohort Decline*

The first dimension to emphasise is just how important parental home ownership is for the likelihood of home ownership of cohort members in both of the cohorts. As the first three sets of estimates in Appendix Table A2 show, the odds ratio for parental home ownership is somewhere between 2.59 and 2.91 in the BCS models, corresponding to a 159 to 191 percent

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[8] One exception is Karagiannaki (forthcoming) which considers the impact of parental wealth on outcomes in young adulthood.

higher probability of a BCS cohort member being a home owner if their parents were home owners when they were growing up. Thus parental home ownership is a very important determinant of an individual's own home ownership status.

In addition, Appendix Table A3 demonstrates that, in the BCS, parental home ownership is a more important determinant of home ownership than is having parents from a professional or high income backgound. The odds ratios reported in the Table reveal that having parents who are home owners at 16 increases the probability of being a home owner at 42 by 116 percent, conditional on father's social class and family income. The conditional effects for being in the highest income quintile and having a professional father are smaller at 99 percent and 33 percent respectively. It is also notable that the influence of parental social class on mid-life owner occupancy conditional on other measures of family background declines steeply between the two cohorts, with the odds ratio for having a professional father dropping from 2.25 in the first cohort compared to 1.33 in the second. This can be interpreted as showing that father's social class is becoming a poorer predictor of wealth compared to parental wealth and income. This point will be returned to in later discussion that is presented below.

In summary, for the 1970 cohort (i.e. after the strengthening of the intergenerational relationship has taken place) parental home ownership is the single most important explanatory factor in the regression estimates. Moreover, the estimates connected to parental home ownership we have reported are numerically large. Indeed, in the conditional models for the BCS the odds ratio associated with parental homeownership is larger than any of the other odds ratios for other family background variables. Moreover, its strengthening across the cohorts has implications for debates about whether social mobility declined in Britain, and we turn to that question next.

*Implications of the Results for Falling Social Mobility*

Prior to this investigation there were two known facts about the evolution of social mobility across these cohorts. First, that income mobility fell, and second, that social class mobility remained static (see, *inter alia*, Blanden, Gregg and Macmillan, 2013, and Erikson and Goldthorpe, 2010). For some, these two findings have proven hard to reconcile and have led to much debate. Issues that have been considered (a non-exhaustive list) include whether differences are due to measurement error, changing income dynamics within social class, or if they are down to fundamental conceptual differences. The evidence that the integenerational persistence of home ownership also increased across these cohorts offers further confirmation of the story told by the income results: they utilise a completely different measure of economic status to show the intergenerational transmission of advantage strengthened across these cohorts.

The story behind this fall in mobility is becoming better understood. The "big" social class measures, preferred by Goldthorpe and his co-researchers, obscure large differences in income inequality within these groups. Indeed, Blanden, Gregg and Macmillan (2013) demonstrate that income differences within fathers' social class groups become more predictive of children's earnings in the 1970 cohort compared with the 1958 cohort. Moreover, when one looks at much narrower occupation based measures of social class, as the recent work of Laurison and Friedman (2016) does, then this marries up much better with the argument that a social mobility fall occurred as earnings and inequality rose over time. Similarly, the evidence on elites discussed in Savage (2015) argues for the study of more disaggregated measures (in particular, in the context of his discussion of relatively small elites at the upper end of the social class structure). The evidence in this paper, on falling home ownership mobility, adds another

piece to the puzzle. It offers a new counterpoint showing that mobility fell in the cross cohort comparison that has dominated the recent academic debate on social mobility trends in Britain.

Table 3 offers a reappraisal and extension of the evidence on the issue of whether social mobility fell or remained constant across these cohorts. Table 3 reports two panels of estimates of the cohort specific extent of intergenerational mobility, and the cross cohort patterns of change, for home ownership, social class and earnings/income. The two panels differ in their sample composition. The upper panel reports estimates from the largest NCDS and BCS samples that can be generated to study mobility patterns for each outcome, whereas the bottom panel reports estimates for a restricted sample that permits the study of mobility for the same groups of cohort members and their parents for each outcome. The estimates very much confirm what we know from existing work but updated to age 42 – mobility fell for earnings/income and stayed constant for social class.[9] Mobility also fell for home ownership, which is the main finding from this paper and which further informs and complements what we know from the earlier research.

The results shown in Table 4, however, push beyond a replication of what we already knew from study of the cohort data at earlier ages. They report estimates of equation (4), the intergenerational home ownership connection, within the six big social class groups. The results, which were shown descriptively before in Figure 7, show a strengthening of this connection going on with the social class groupings over time. In all six cases (and the pooled average in the first row) the cross cohort change shows a bigger association for the BCS than NCDS cohorts, and significantly so for five of the six social class groupings.

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[9] As with the earlier home ownership estimates we also show odds ratios for social class Logistic models in Appendix Table A3. They very much confirm the patterns for social class shown in Table 4.

Appendix Table A5 contrasts these within parental social class results with estimates computed within parental income groups. As might be anticipated from the patterns seen earlier in the raw data presented in Figures 6 and 7, the picture that emerges is different. The intergenerational association in owner occupation is flatter across the cohorts within income groups. This indicates that the increased association in owner occupation and the increased link in incomes across generations are part of the same phenomenon; both income and wealth have become more intergenerationally persistent.

Thus significantly higher intergenerational persistence in home ownership is present in the BCS cohort. Moreover, the observed pattern of a strengthening intergenerational link within social class groups at different times resonates well with the observations (discussed above) on the usefulness of big social class measures, especially on the growing importance of income inequalities within these big social class groupings. Thus the strengthening of the intergenerational home ownership relation is congruent with the notion that social mobility did in fact decline over time for the cohorts studied here. The fact that the home ownership models are estimated at ages 42 in 2000 and 2012 means that declining social mobility has been occurring in the very recent past.

*Intergenerational Transmissions of Wealth*

Home ownership is an important component of overall wealth. Indeed, for individuals in middle age it is very often the largest component (i.e. excluding pension wealth). It therefore seems very likely that the stronger association between parental home ownership, parental income and later home ownership that we have uncovered in the second cohort is indicative of a strengthening link between parental background and later wealth. If so, this implies that intergenerational wealth mobility likely fell as part of the decline in social mobility that occurred in the cross cohort comparison that we have studied in this paper.

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Unfortunately the cohort studies do not contain good enough information on the wealth of parents and children to allow us to measure intergenerational wealth mobility directly. We do however, have a number of variables which are proxies for wealth, or sub-components of a total wealth measure. Charles and Hurst (2003) estimate the intergenerational transmission of wealth in the US using the PSID. As well as directly relating total wealth they also correlate earned family income, stock ownership, home ownership and owning a business across generations. Table 5 mimics the part of Charles and Hurst where they diaggregate into these factors by providing evidence from our cohorts on the impact of parental home ownership and family income on the cohort member's home ownership, owning a busines, having savings or investments and total family income.

The results presented indicate that the stark growth in the link between family background and housing tenure is replicated when we consider family income and having savings or investments. While in each cohort there is a positive association between parental home ownership and income and owning a business as an adult (as is the case in the US) there is no cross-cohort growth in the associations for this variable. However, it should be noted that the proportion of cohort members who own a business is low and reduces from 5.1 to 3.6 percent across the two cohorts, possibly reflecting the limitation of the definition that is available to use in the cohorts data (i.e. owning a business having to be being defined as a cohort member reporting being self-employed with employees). Overall, taking these results together with our earlier ones on home ownership only, it seems likely that the increased association in home ownership across cohorts does reflect a more general increase in the intergenerational transmission of wealth.

**5. Conclusions**

We study a hitherto rather neglected dimension of social mobility by studying the extent to which home ownership is persistent across generations. We report evidence that it is, and strongly so, and that the extent of persistence has grown substantially over time at the same time as home ownership rates have plummeted for more recent birth cohorts.

These findings mean two things in the context of existing research and policy discussions. First, that a key driver of whether younger cohorts have been able to get on the housing ladder to buy their own home has been whether their parents were themselves home owners. Second, the increased persistence of an intergenerational housing relationship offers new evidence that is supportive of previous findings based on earnings and income. The new evidence points to a worsening of social mobility over time in Britain that has manifest itself through a reduction of access to home ownership for people from less advantaged family backgrounds. Indeed, to the extent that home ownership reflects wealth, there are therefore indications that the intergenerational persistence of income and wealth grew in tandem over the period we study.

The principal aim of this paper has been to offer new empirical evidence on generational aspects of home ownership. In doing so it has remained silent on the mechanisms that may lie behind the changing link between family background and home ownership. It is likely that strengthening of the intergnerational relationship has occurred in part because more financially secure families are able to better support their children's education and career choices, and in this way enable children to be in a better position to buy. It could also be that, because of rising housing values, parents who are themselves home owners are now more able to offer direct financial support for home purchase. A final possibility is that owner occupier

parents influence the preferences of their children. Distinguishing the relative importance of these mechanisms is an important issue to consider in future work.

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**Figure 1:**
**Percent owner occupiers by age group and year**
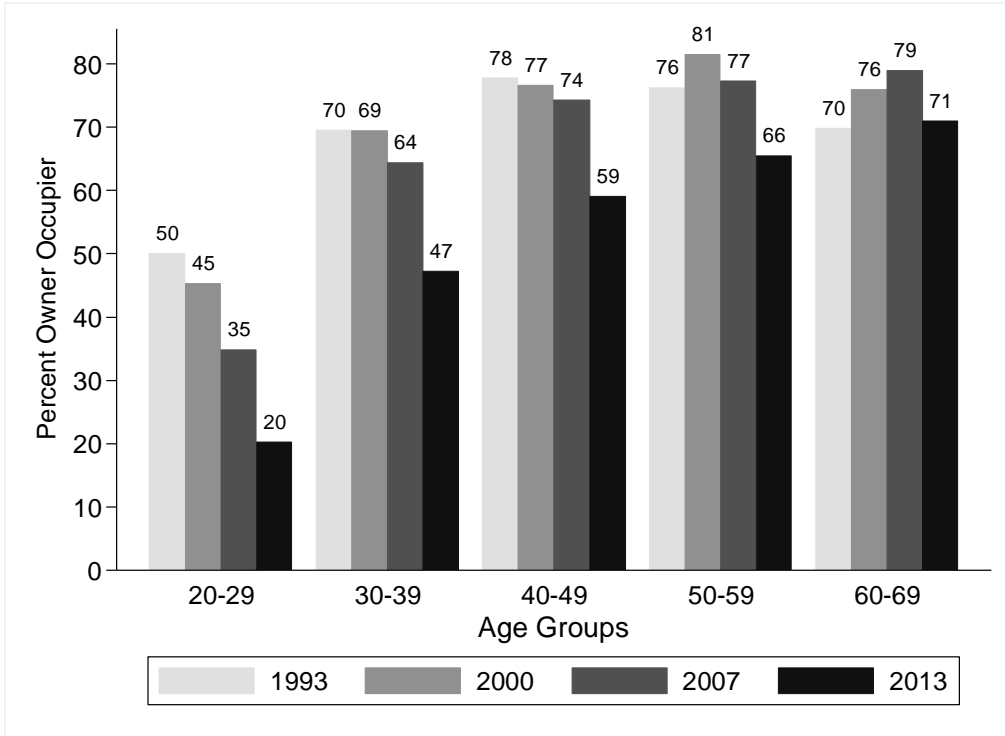


Sources: 1993, 2000 and 2007, Survey of English Housing, 2013 English Housing Survey.

**Figure 2:**
**Percent owner occupiers by age and cohort of birth**
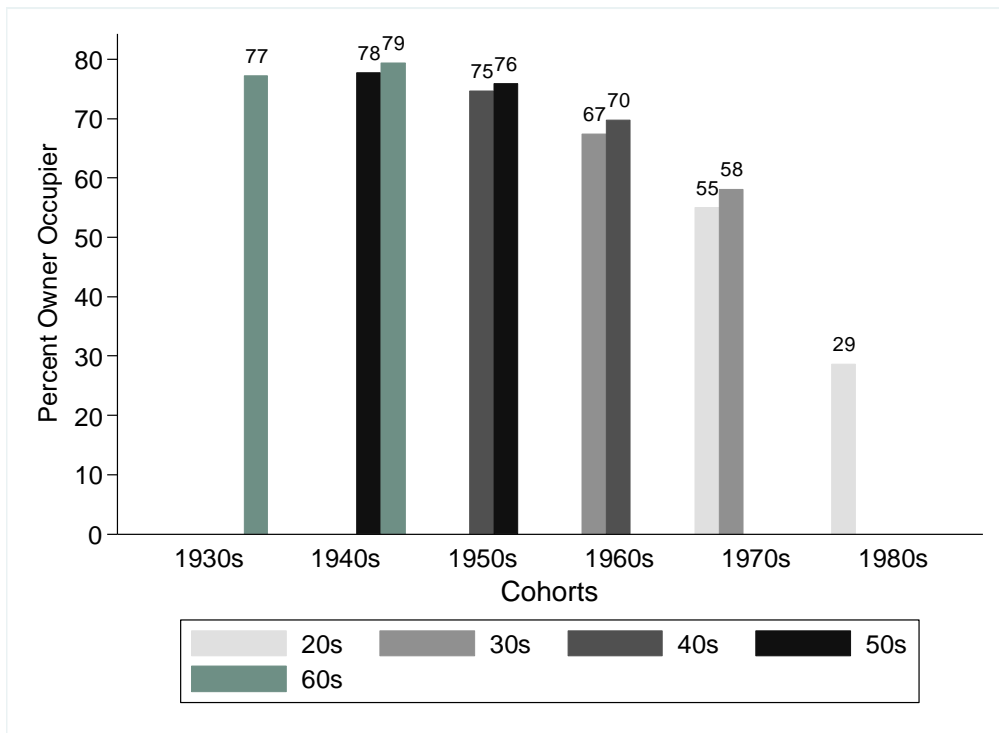


Sources: Survey of English Housing 1993/4 – 2007/8, English Housing Survey 2008/9-2013/4.Income is calculated as quintiles within each survey year.

**Figure 3:**
**Cohort effects from regression models conditioning on cohort, age and time**
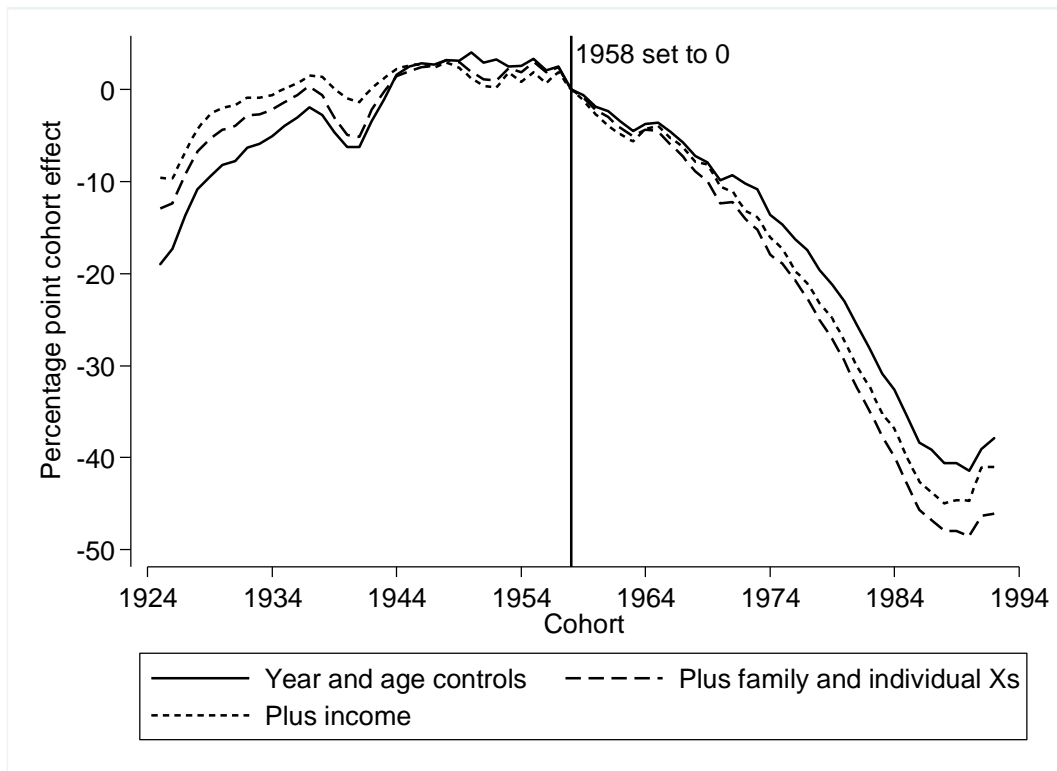


Note: Cohort effects are derived for each year and presented as 3 year moving averages, with 1958 normalised to 0. Family and individual controls are gender, marital status, ethnicity and number of children.

# Figure 4: Cross-time shifts in age/cohort home ownership profiles

## 1993 to 1999



## 2000 to 2007



## 2008 to 2015
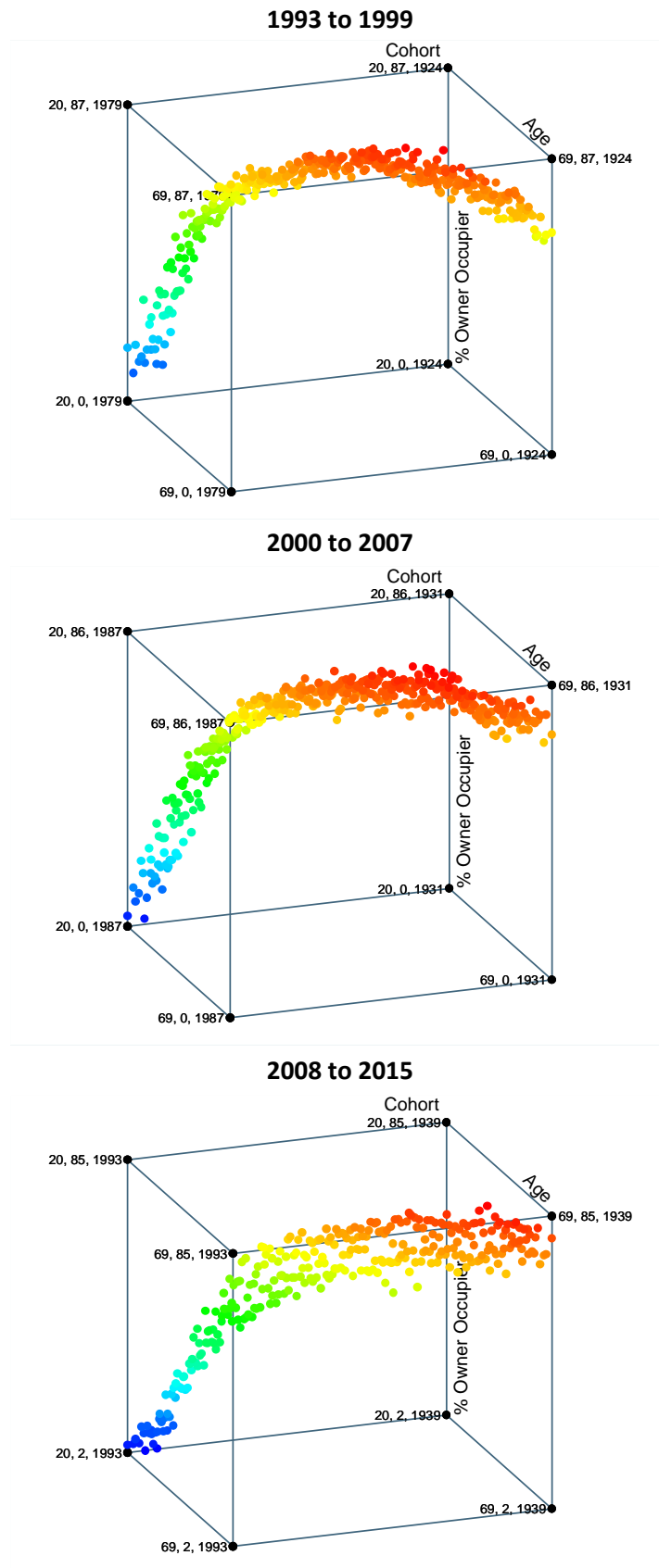


Notes: Data points are in the format [age, owner occupation, cohort], e.g. age 40 with owner occupation of 76 percent for birth cohort 1960 = [40, 76, 1960].

**Figure 5:**
**Owner occupancy at age 42 by parents' owner occupancy at age 11/10**



NCDS, Age 42 in 2000 — Percent Owner Occupiers

BCS, Age 42 in 2012 — Percent Owner Occupiers
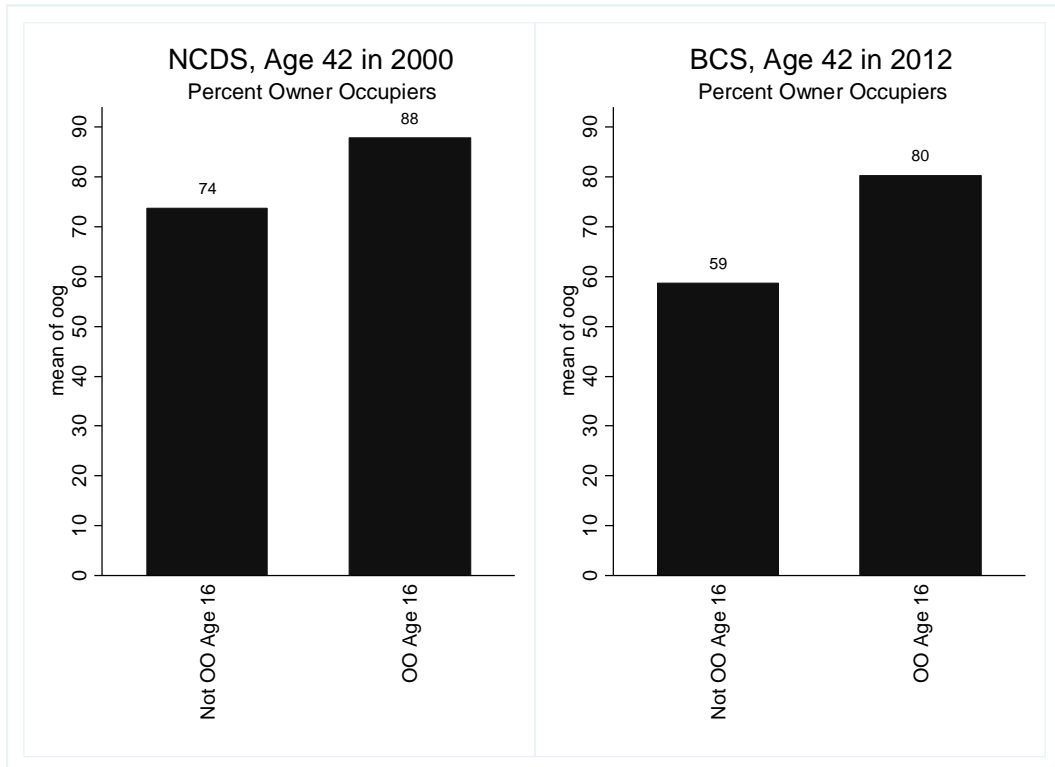
**Figure 6:**
**Owner occupancy at age 42 by parents' owner occupancy at age 16**
**and parents' income quintile**



NCDS, Age 42 in 2000
Percent Owner Occupiers

BCS, Age 42 in 2012
Percent Owner Occupiers
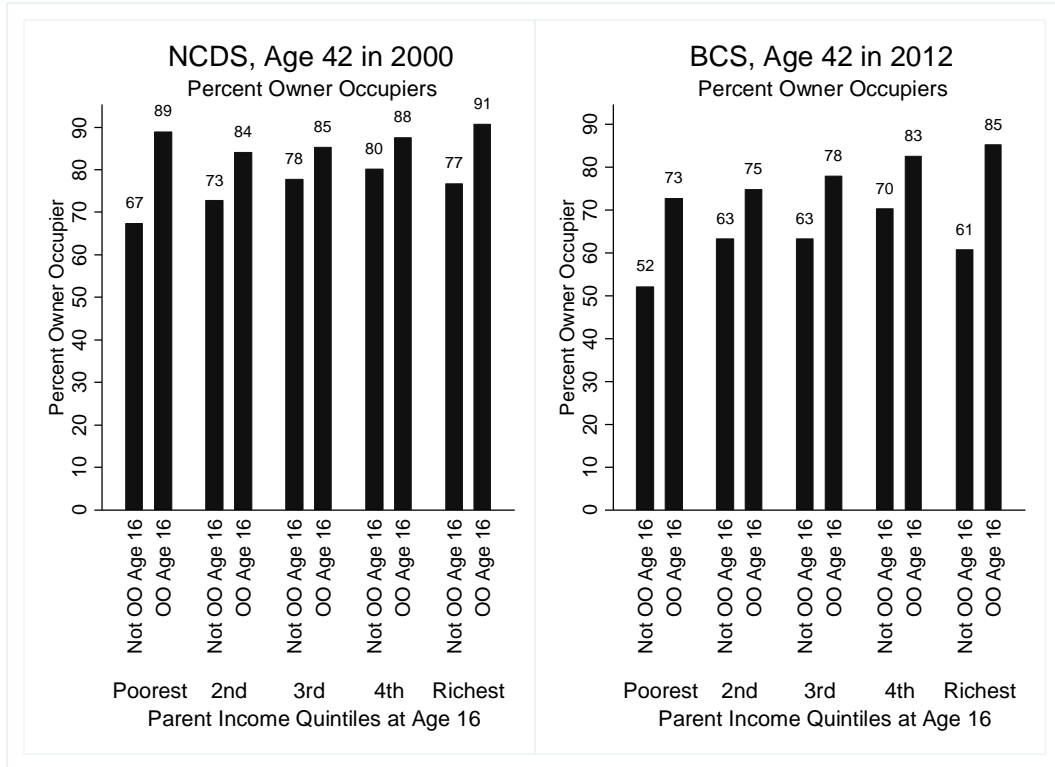
**Figure 7:**
**Owner occupancy at age 42 by parents' owner occupancy at age 16
and parents' social class**
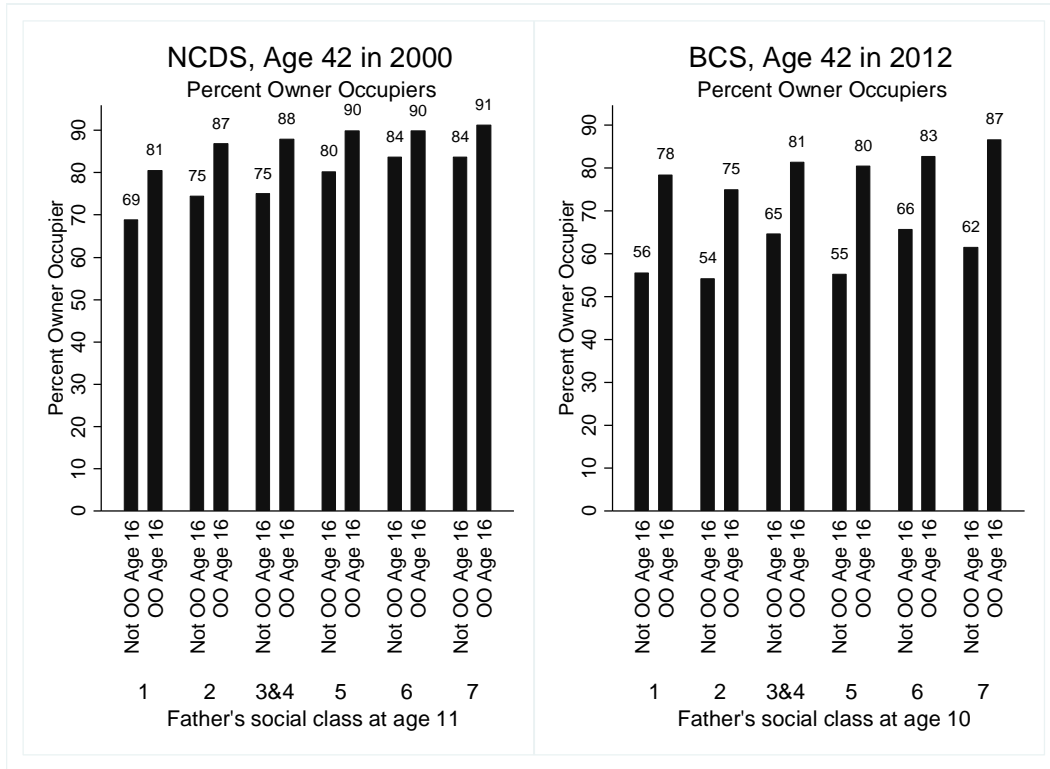


Notes: Father's social class is coded as 1 "non skilled manual" 2 "skilled manual" 3 "manual supervisory" 4 "own account and self-employed" 5 "junior non-manual" 6 "lower managerial and technical" 7 "professional and higher mangerial".

**Table 1:**
**Owner occupancy rates for cohort members and their parents**

| National Child Development Study (Cohort members born in 1958) | | British Cohort Study (Cohort members born in 1970) | |
|---|---|---|---|
| | Percent Owner Occupiers | | Percent Owner Occupiers |
| **Parents' status** | | | |
| Age 11 in 1969 | 45.7 | Age 10 in 1980 | 61.3 |
| Age 16 in 1974 | 49.9 | Age 16 in 1986 | 73.6 |
| Age 11 or 16 | 61.7 | Age 10 or 16 | 83.4 |
| **Cohort members' status** | | | |
| Age 23 in 1981 | 29.5 | Age 26 in 1996 | 42.9 |
| | | Age 30 in 2000 | 63.8 |
| Age 33 in 1991 | 79.1 | Age 34 in 2004 | 74.2 |
| Age 42 in 2000 | 80.6 | Age 42 in 2012 | 73.4 |

## Table 2:
## Intergenerational models of owner occupation

| Specification | | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 | Cross Cohort Change |
|---|---|---|---|---|
| | **Parental home ownership at 11/10** | | | |
| (1) | Unconditional | 0.127 (0.008) | 0.200 (0.010) | 0.073 (0.012) |
| (2) | (1) Plus gender, parental age, with natural/adoptive father at 11/10 | 0.124 (0.008) | 0.190 (0.010) | 0.066 (0.013) |
| (3) | (2) Plus standardised maths and reading score at 11/10 | 0.095 (0.008) | 0.163 (0.011) | 0.068 (0.013) |
| | Sample Size | 9618 | 8402 | |
| | **Parental home ownership at 16** | | | |
| (4) | Unconditional | 0.140 (0.008) | 0.217 (0.013) | 0.077 (0.015) |
| (5) | (4) Plus gender, parental age, with natural/adoptive father at 11/10 | 0.139 (0.008) | 0.211 (0.013) | 0.072 (0.015) |
| (6) | (5) Plus standardised maths and reading score at 11/10 | 0.114 (0.009) | 0.185 (0.013) | 0.071 (0.015) |
| | Sample Size | 8375 | 6267 | |
| | **Parental home ownership at 11/10 or16** | | | |
| (7) | Unconditional | 0.133 (0.008) | 0.227 (0.013) | 0.094 (0.015) |
| (8) | (7) Plus gender, parental age, with natural/adoptive father at 11/10 | 0.135 (0.008) | 0.223 (0.013) | 0.088 (0.015) |
| (9) | (8) Plus standardised maths and reading score at 11/10 | 0.108 (0.009) | 0.197 (0.013) | 0.089 (0.015) |
| | Sample Size | 8946 | 7795 | |

Notes: The dependent variable is a 0-1 dummy variable for cohort member's home ownership. Standard errors in parentheses.

**Table 3:**
**Comparison of intergenerational models of owner occupation,**
**social class and earnings/income**

| | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 | Cross Cohort Change |
|---|---|---|---|
| **Unrestricted samples** | | | |
| Home ownership at 42 and 16 | 0.139 (0.008) | 0.211 (0.013) | 0.072 (0.015) |
| Sample size | 8375 | 6227 | |
| Social class at 42 and 11/10 | 0.072 (0.005) | 0.067 (0.006) | -0.004 (0.008) |
| Sample size | 7926 | 6394 | |
| Log(Earnings at 42) and Log(Income at 16) | 0.266 (0.029) | 0.354 (0.026) | 0.088 (0.039) |
| Sample size | 4340 | 3389 | |
| **Restricted common samples** | | | |
| Home ownership at 42 and 16 | 0.092 (0.011) | 0.166 (0.019) | 0.073 (0.021) |
| Sample size | 3735 | 2742 | |
| Social class at 42 and 11/10 | 0.062 (0.007) | 0.064 (0.009) | 0.003 (0.011) |
| Sample size | 3735 | 2742 | |
| Log(Earnings at 42) and Log(Income at 16) | 0.282 (0.033) | 0.354 (0.029) | 0.072 (0.044) |
| Sample size | 3735 | 2742 | |

Notes: Comparable to specification (5) in Table 2. All models control for gender, parental age, and whether the child lived with their natural/adoptive father at 11/10. Standard errors in parentheses. The models from which the social class estimates are obtained are reported in Appendix Table A3.

**Table 4:**
**Intergenerational models of owner occupation, within social class groups**

| By parental social class | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 | Cross Cohort Change |
|---|---|---|---|
| All | 0.137 (0.009) | 0.224 (0.014) | 0.086 (0.017) |
| Sample size | 7178 | 5088 | |
| Unskilled | 0.119 (0.027) | 0.221 (0.036) | 0.102 (0.045) |
| Sample size | 1462 | 660 | |
| Skilled manual | 0.121 (0.017) | 0.209 (0.028) | 0.088 (0.031) |
| Sample size | 2289 | 1291 | |
| Skilled supervisory and self-employed | 0.127 (0.027) | 0.162 (0.032) | 0.034 (0.042) |
| Sample size | 801 | 1018 | |
| Junior non-manual | 0.093 (0.026) | 0.249 (0.071) | 0.156 (0.069) |
| Sample size | 734 | 319 | |
| Managerial and technical | 0.062 (0.022) | 0.162 (0.041) | 0.101 (0.045) |
| Sample size | 1158 | 1050 | |
| Professional and higher managerial | 0.077 (0.031) | 0.251 (0.070) | 0.174 (0.073) |
| Sample size | 734 | 750 | |

Notes: Comparable to specification (5) in Table 2, but for a reduced sample size because of missing data on parental social class. All models control for gender, parental age, and whether the child lived with their natural/adoptive father at 11/10. Standard errors in parentheses.

**Table 5:**
**Comparison of intergenerational models of wealth proxies**

| Maximum samples | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 | Cross Cohort Change |
|---|---|---|---|
| **Home ownership at age 42 on:** | | | |
| Parental home ownership at 16 | 0.139 (0.008) | 0.211 (0.013) | 0.072 (0.015) |
| Sample size | 8375 | 6267 | |
| Log(Parental Income at 16) | 0.108 (0.013) | 0.165 (0.013) | 0.057 (0.018) |
| Sample size | 6439 | 4822 | |
| **Log(Family Income) at 42 on:** | | | |
| Parental home ownership at 16 | 0.202 (0.019) | 0.343 (0.025) | 0.140 (0.032) |
| Sample size | 7345 | 4794 | |
| Log(Parental Income at 16) | 0.262 (0.028) | 0.410 (0.025) | 0.148 (0.026) |
| Sample size | 5708 | 3722 | |
| **Having savings/investments at 33 on:** | | | |
| Parental home ownership at 16 | 0.132 (0.011) | 0.176 (0.016) | 0.044 (0.019) |
| Sample size | 7028 | 5296 | |
| Log(Parental Income at 16) | 0.108 (0.016) | 0.182 (0.016) | 0.074 (0.022) |
| Sample size | 5413 | 4059 | |
| **Owing a business at 42 on:** | | | |
| Parental home ownership at 16 | 0.024 (0.005) | 0.016 (0.005) | -0.009 (0.005) |
| Sample size | 7206 | 6282 | |
| Log(Parental Income at 16) | 0.027 (0.007) | 0.013 (0.005) | -0.014 (0.007) |
| Sample size | 5542 | 4827 | |

Notes: All models control for gender, parental age, and whether the child lived with their natural/adoptive father at 11/10. Standard errors in parentheses.

**Table A1:**
**Coefficients from model of home ownership including cohort, age and time effects**

| Cohort | | Cohort | | Age | | Age | | Year | |
|---|---|---|---|---|---|---|---|---|---|
| 1924 | -0.213 | 1959 | -0.052** | 20 | -0.467** | 56 | 0.038 | 1993 | -0.011 |
| 1925 | -0.234 | 1960 | -0.045** | 21 | -0.335** | 57 | 0.057 | 1994 | -0.014 |
| 1926 | -0.200 | 1961 | -0.036 | 22 | -0.310** | 58 | 0.043 | 1995 | -0.016 |
| 1927 | -0.163 | 1962 | -0.067** | 23 | -0.252* | 59 | 0.041 | 1996 | -0.027 |
| 1928 | -0.126 | 1963 | -0.078** | 24 | -0.121 | 60 | 0.066 | 1997 | -0.012 |
| 1929 | -0.114 | 1964 | -0.067* | 25 | -0.114 | 61 | 0.067 | 1998 | -0.017 |
| 1930 | -0.121 | 1965 | -0.045 | 26 | -0.071 | 62 | 0.040 | 1999 | -0.009 |
| 1931 | -0.089 | 1966 | -0.074 | 27 | -0.064 | 63 | 0.064 | 2000 | omitted |
| 1932 | -0.100 | 1967 | -0.096* | 28 | -0.040 | 64 | 0.074 | 2001 | 0.006 |
| 1933 | -0.079 | 1968 | -0.081 | 29 | -0.026 | 65 | 0.056 | 2002 | 0.010 |
| 1934 | -0.075 | 1969 | -0.117** | 30 | -0.031 | 66 | 0.075 | 2003 | 0.009 |
| 1935 | -0.076 | 1970 | -0.118* | 31 | 0.010 | 67 | 0.088 | 2004 | 0.003 |
| 1936 | -0.046 | 1971 | -0.139*** | 32 | -0.004 | 68 | 0.101 | 2005 | 0.002 |
| 1937 | -0.048 | 1972 | -0.099 | 33 | -0.009 | 69 | 0.092 | 2006 | -0.005 |
| 1938 | -0.041 | 1973 | -0.146* | 34 | 0.003 | | | 2007 | -0.003 |
| 1939 | -0.071 | 1974 | -0.158* | 35 | 0.004 | | | 2008 | -0.012 |
| 1940 | -0.106 | 1975 | -0.182** | 36 | -0.006 | | | 2009 | -0.017 |
| 1941 | -0.089 | 1976 | -0.178* | 37 | 0.009 | | | 2010 | -0.027 |
| 1942 | -0.069 | 1977 | -0.206** | 38 | 0.025 | | | 2011 | -0.028 |
| 1943 | -0.023 | 1978 | -0.218** | 39 | 0.023 | | | 2012 | -0.028 |
| 1944 | -0.016 | 1979 | -0.242** | 40 | 0.004 | | | 2013 | -0.050 |
| 1945 | 0.010 | 1980 | -0.253** | 41 | 0.018 | | | | |
| 1946 | 0.003 | 1981 | -0.273** | 42 | omitted | | | | |
| 1947 | -0.005 | 1982 | -0.322** | 43 | 0.028 | | | | |
| 1948 | 0.006 | 1983 | -0.326** | 44 | 0.020 | | | | |
| 1949 | 0.018 | 1984 | -0.356** | 45 | 0.013 | | | | |
| 1950 | -0.008 | 1985 | -0.374** | 46 | 0.050 | | | | |
| 1951 | 0.033 | 1986 | -0.413** | 47 | 0.040 | | | | |
| 1952 | -0.014 | 1987 | -0.441** | 48 | 0.035 | | | | |
| 1953 | 0.002 | 1988 | -0.398** | 49 | 0.024 | | | | |
| 1954 | 0.010 | 1989 | -0.457** | 50 | 0.038 | | | | |
| 1955 | -0.012 | 1990 | -0.440** | 51 | 0.046 | | | | |
| 1956 | 0.024 | 1991 | -0.424** | 52 | 0.021 | | | | |
| 1957 | -0.026 | | | 53 | 0.010 | | | | |
| 1958 | omitted | | | 54 | 0.032 | | | | |

Notes: Sample size is 310,150. Estimates of the age, cohort and year effects from equation (1) in the main body of the paper. The omitted categories are year of birth 1958, age 42 and survey year 2000. ** denotes coefficients are statistically significant at 5% level, * denotes statistically significant at 10% level.

**Table A2:**
**Alternative estimates of intergenerational models of owner occupation**

| | Odds ratios for parental home ownership from Logistic models | |
| --- | --- | --- |
| | NCDS,<br>Age 42 in 2000 | BCS,<br>Age 42 in 2012 |
| Parental home ownership at 11/10,<br>Unrestricted sample | 2.350<br>(0.132) | 2.585<br>(0.135) |
| Sample size | 9618 | 8402 |
| Parental home ownership at 16,<br>Unrestricted sample | 2.534<br>(0.149) | 2.793<br>(0.181) |
| Sample size | 8375 | 6267 |
| Parental home ownership at 11/10 or 16,<br>Unrestricted sample | 2.470<br>(0.140) | 2.905<br>(0.192) |
| Sample size | 8946 | 7795 |
| Parental home ownership at 16, Restricted<br>sample | 2.193<br>(0.218) | 2.422<br>(0.257) |
| Sample size | 3735 | 2742 |

Notes: Comparable to specifications (2), (5) and (8) in Table 2 and the lower panel homeownership model in Table 3. All models control for gender, parental age, and whether the child lived with their natural/adoptive father at 11/10. Standard errors in parentheses.

**Table A3:**
**Consideration of other family background measures in models of home ownership**

| Family background | Regression coefficients | | Odds ratios from Logistic models | |
|---|---|---|---|---|
| | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 |
| Parental owner occupation | 0.094 | 0.164 | 1.905 | 2.162 |
| | (0.011) | (0.018) | (0.151) | (0.204) |
| Second parental income quintile | 0.010 | 0.067 | 1.054 | 1.347 |
| | (0.017) | (0.023) | (0.111) | (0.158) |
| Third parental income quintile | 0.028 | 0.078 | 1.171 | 1.436 |
| | (0.017) | (0.023) | (0.128) | (0.172) |
| Fourth parental income quintile | 0.052 | 0.121 | 1.404 | 1.891 |
| | (0.017) | (0.024) | (0.162) | (0.251) |
| Richest parental income quintile | 0.050 | 0.126 | 1.411 | 1.993 |
| | (0.018) | (0.026) | (0.176) | (0.295) |
| Father skilled manual | 0.072 | -0.019 | 1.469 | 0.903 |
| | (0.014) | (0.023) | (0.130) | (0.108) |
| Father skilled supervisory and self-employed | 0.089 | 0.060 | 1.642 | 1.389 |
| | (0.020) | (0.024) | (0.217) | (0.188) |
| Father junior non-manual | 0.115 | 0.030 | 2.045 | 1.171 |
| | (0.020) | (0.033) | (0.286) | (0.217) |
| Father managerial and technical | 0.115 | 0.021 | 2.126 | 1.110 |
| | (0.018) | (0.025) | (0.287) | (0.156) |
| Father professional and higher managerial | 0.116 | 0.046 | 2.252 | 1.334 |
| | (0.021) | (0.028) | (0.382) | (0.223) |
| Sample size | 5548 | 3891 | 5548 | 3891 |

Notes: Comparable to specification (2) in Table 3. All models control for gender, parental age, and whether the child lived with their natural/adoptive father at 11/10. Omitted categories are unskilled fathers and lowest parental income category. Standard errors in parentheses.

**Table A4:**
**Regression coefficients and odds ratios**
**from intergenerational models of social class**

| Parental social class | NCDS, Age 42 in 2000 | | | | NCS, Aged 42 in 2012 | | | |
|---|---|---|---|---|---|---|---|---|
| | LPM | Odds Ratio | Cohort Member Share | Parent Share | LPM | Odds Ratio | Cohort Member Share | Parent Share |
| Unskilled | 0.102 (0.008) | 2.645 (0.218) | 0.095 | 0.191 | 0.075 (0.010) | 2.345 (0.271) | 0.074 | 0.127 |
| Skilled manual | 0.048 (0.006) | 1.836 (0.157) | 0.085 | 0.311 | 0.046 (0.007) | 2.063 (0.228) | 0.062 | 0.248 |
| Skilled supervisory and self-employed | 0.051 (0.011) | 1.537 (0.148) | 0.126 | 0.117 | 0.041 (0.011) | 1.335 (0.108) | 0.162 | 0.202 |
| Junior non-manual | 0.031 (0.014) | 1.231 (0.115) | 0.218 | 0.103 | 0.027 (0.019) | 1.219 (0.173) | 0.175 | 0.059 |
| Managerial and technical | 0.070 (0.013) | 1.408 (0.091) | 0.267 | 0.169 | 0.072 (0.015) | 1.348 (0.084) | 0.388 | 0.206 |
| Professional and higher managerial | 0.152 (0.014) | 2.249 (0.179) | 0.208 | 0.108 | 0.139 (0.012) | 2.596 (0.219) | 0.139 | 0.157 |
| Weighted estimate, LPM | | | 0.077 (0.007) | 0.072 (0.005) | | | 0.067 (0.008) | 0.067 (0.006) |
| Weighted estimate, Logistic Odds Ratio | | | 1.714 (0.069) | 1.867 (0.080) | | | 1.615 (0.069) | 1.838 (0.038) |
| Sample size | 7926 | | | | 6394 | | | |

Notes: The dependent variable is a 0-1 dummy variable for cohort member's social class. Standard errors in parentheses.

**Table A5:**
**Intergenerational models of owner occupation,**
**within parental income groups**

| By parental income | NCDS, Age 42 in 2000 | BCS, Age 42 in 2012 | Cross Cohort Change |
|---|---|---|---|
| All | 0.135 (0.010) | 0.214 (0.015) | 0.059 (0.017) |
| Sample size | 6433 | 4803 | |
| Lowest parental income quintile | 0.214 (0.025) | 0.213 (0.031) | -0.001 (0.004) |
| Sample size | 1295 | 1015 | |
| Second parental income quintile | 0.115 (0.024) | 0.112 (0.033) | -0.002 (0.040) |
| Sample size | 1281 | 899 | |
| Third parental income quintile | 0.075 (0.022) | 0.139 (0.035) | 0.065 (0.040) |
| Sample size | 1285 | 966 | |
| Fourth parental income quintile | 0.073 (0.020) | 0.123 (0.044) | 0.050 (0.048) |
| Sample size | 1292 | 962 | |
| Richest parental income quintile | 0.139 (0.021) | 0.243 (0.069) | 0.104 (0.070) |
| Sample size | 1280 | 942 | |

Notes: As for Table 4.

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