

# Growing up in social housing in Britain

A profile of four generations,  
1946 to the present day

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Ruth Lupton, Rebecca Tunstall, Wendy Sigle-Rushton, Polina Obolenskaya, Ricardo Sabates, Elena Meschi, Dylan Kneale and Emma Salter

Institute of Education, Centre for Research on the Wider Benefits of Learning  
London School of Economics and Political Science

With Cathie Hammond (Centre for Research on the Wider Benefits of Learning), Diana Kuh (Medical Research Council Unit for Lifelong Health and Ageing, University College London) and Brian Dodgeon (Centre for Longitudinal Studies, Institute of Education, University of London)

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# Summary

## The study

This report examines the role that social housing has played for children and families in Britain from the second world war to the present day, and explores the links between housing and other aspects of people's lives as they move from childhood to adulthood. Building on an earlier study by many of the same team, *The Public Value of Social Housing* (Feinstein et al, 2008), it aims to illuminate the relationship between housing in childhood and later outcomes, and thus to inform current policy debate on the future of social housing and its role in tackling social exclusion and promoting greater equality and social mobility.

The report uses data from the four British cohort studies, which have traced large samples of people born in 1946, 1958, 1970 and 2000 with regular and wide-ranging interviews throughout their lives. These studies have been used in countless research projects to investigate many important issues – for example, the impact of parental social class, parenting practices and father absence in childhood on outcomes later in life, and whether social mobility has increased or reduced over time. However, the potential of the cohort studies for understanding housing and its impact on people's lives has not yet been fully explored. This study is

also unusually ambitious because it is based on all four cohort studies, enabling multiple comparisons between the different generations of children and the different housing systems they have grown up in.

Historical studies of housing based on other sources have shown us how the British housing system has changed dramatically since 1946. For example, in 1946, an estimated ten per cent of all households in England were social tenants<sup>1</sup>, but by 1961 this had risen to 24% and by 1981 to 31%, before falling as low as 19% by 2001. Meanwhile home ownership grew steadily from less than a third of households in 1946 to 68% in 1991, since when it has stabilised. Overall, housing quality improved vastly. In 1951, only half the households in England had their own fixed bath, toilet, running hot water and stove, but by 2001 these amenities were almost ubiquitous. Alongside these processes, the different tenures have played changing roles. The least advantaged parts of the population, once mainly private renters, are now mainly social renters, and there is a growing gap developing

<sup>1</sup>Throughout this report, the term social housing is used to refer both to council housing and properties rented by registered social landlords (housing associations). Although in some earlier years housing association properties were counted as private rented, numbers were very small.

between those in social housing and those in home ownership. These points have been reiterated in recent assessments of social housing, for example in the review of the role of social housing by John Hills (2007).

Using the cohort studies, we have been able to add to this analysis, firstly by focusing on the situation of families with children, secondly by making explicit comparisons between children and families in different generations, and thirdly by examining changes over individual lifetimes, including the relationship between childhood housing experiences and a wide range of later outcomes.

## **Growing up in social housing**

The study focuses on social housing. Throughout its history, new social housing, just like new homes intended for sale, has mainly been built with the aim of housing families with children, or couples likely to have children. Evidence from the cohort studies confirms the important role social housing has played in post-war British childhoods. It also shows changes within cohorts as children grew up, and between cohorts in different generations. Of those born in 1946, 37% were in social housing at age six, compared to less than a quarter of

households overall at the same time. As these children went through childhood, the proportion in social housing increased. The proportion remained high when the 1958 cohort were young, with 39% in social housing at age seven. Fully 55% of British people born in 1946, and 48% of those born in 1958, spent at least some time in social housing in their childhood. However, from that point on, while children continued to be over-represented in social housing compared to households overall, the proportion experiencing social housing declined. Of those born in 1970, 32% were in social housing at age five, but only 38% spent at least some time in social housing in their childhood. Only 21% of the children born in the 2000 cohort were in social housing at age five. We can therefore expect that, once their childhoods are complete, far fewer will have experienced social housing during childhood than in previous generations.

Tracking individuals over time also reveals how social housing fitted into the rest of the housing system. Over 80% of those born in 1946 who moved into social housing in childhood came from the private rented sector, where at the time more than half of children did not have hot water or bathrooms in their homes. The vast majority of contemporary social rented homes had all these amenities, so here social housing acted as a 'step

up' in quality. The origins of later arrivals into social housing are more mixed. Growing shares came from home ownership, and here social housing was acting more as a 'safety net', perhaps after family breakdown or repossession. Over 70% of those born in 1958 and 1970 who moved out of social housing in childhood moved into home ownership, demonstrating how social housing was also acting as a 'stepping stone' to a tenure that was widely seen as more desirable than any form of renting.

Overall, there was a steady increase in the proportion of families and children in home ownership, both within cohorts and between cohorts. In each successive cohort, a larger proportion of children started off life in owner-occupied homes. When those born in 1958 were seven, 41% were in home ownership, and by the time they were 16, the figure was 54%. When those born in 1970 were five, 55% were in home owning households and by the time they were 16, the figure was 72%. Sixty-nine per cent of those born in 2000 were in home ownership at age five.

## **Social housing and increasing concentrations of disadvantage**

The increasing concentration over time of less advantaged households in social housing is very well known, and has been a key concern of recent studies of social housing (eg Hills, 2007). Evidence from the cohort studies confirms this pattern and adds new detail.

We created an 'index of advantage' for children from all four cohorts: a combined measure of mother's and father's education and father's occupational status when the child was born. Analysis shows how very early the relationship between disadvantage and the likelihood of being in social housing began. When the 1946 cohort were aged four, 11% of the most advantaged quintile were in social housing, compared to 27% of the least advantaged. Amongst this generation, children from all backgrounds moved into social renting through their childhood. From as early as midway through the 1958 cohort members' childhoods, social housing tenancy began to fall for children in all quintiles. This pattern was followed for the 1970 cohort. The declining role social housing has played in housing all kinds of households, including the least advantaged, for decades, is not always



recognised. However, it was the more advantaged families who were moving out to home ownership. By the time the 2000 cohort were aged five, the tenure gap between quintiles had grown hugely: just two per cent of the most advantaged quintile were in social housing while 49% of the least advantaged were. Historical sources show that over the period since 1946, social housing access policies altered from filtering out some of the most disadvantaged to targeting those in greatest need. However, the steady growth of home ownership, approved of and encouraged by policy makers, clearly played a very important role in these transitions.

The richness of the cohort studies reveals how social housing populations changed in many other ways, especially after 1970. For example, for children in home ownership, the proportion born to a lone mother was unchanged between 1970 and 2000, while the proportion in social housing grew from six per cent to 28%. Mothers of those born in 1958 were more likely to work when their children were of pre-school age if they were social renters than if they were home owners. For the 1970 cohort there was little difference by parental tenure, and by the time the 2000 cohort were aged five, the home owner mothers were twice as likely to be working as the social tenant mothers. This reflects transition in mothers' economic activity over

time: from working class necessity to middle class norm, and is an example of how wide-ranging social changes affected children and the housing system.

Alongside the increasing disadvantage of its residents, as time passed social housing began to lose out to other tenures in terms of quality and desirability. No more than 11% of children born in 1946 in social housing experienced living in flats, overcrowding, lack of bathroom or hot water, while for those whose parents were home owners the figure was 20% and for those whose parents were private tenants, a massive 66% experienced at least one of these less desirable features. By the 1958 cohort, home ownership had overtaken social housing in the quality stakes, and by the 2000 cohort at least 20% of children in social housing experienced one of these less desirable features (mainly living in flats), and social housing was in third place behind owning and private renting.

Thus, over successive generations, children growing up in social housing experienced several cumulative processes of disadvantage:

- as individuals, they were more likely to come from disadvantaged families
- given the increasing disadvantage of social renting households generally, they were more

likely to be surrounded by disadvantaged neighbours

- on the measures we have used, their homes were more likely to fall short in quality and desirability in absolute terms and relative to other tenures

These changes have resulted in a much bigger tenure divide among today's children than any other post-war generation.

## **Social housing in childhood and adult outcomes**

In the next part of the study, we tracked cohort members into adulthood and traced how they fared according to a total of up to 12 measures in five areas:

- health and health-related behaviours
- well-being
- education
- employment
- income

Many previous studies have found correlation between being a social renter in adulthood and various forms of adult disadvantage, as discussed

above. However, we found gaps in adult outcomes between adults who had ever been in social housing in childhood, decades before, compared to those who had never experienced it. This was separate from their adult housing experience, which we did not investigate. The 'ever in social housing in childhood' group made up 55% of those born in 1946, 48% of those born in 1958, and 38% of those born in 1970. For each generation and every measure we used, those who had ever been in social housing in childhood fared worse as adults. For example, at age 34 in 2004, those born in 1970 who had ever been in social housing in childhood rated their health at an average score of 2.92 out of 4, while those who had never been in social housing in childhood rated their health at 3.13 out of 4. Seventy-nine per cent of the 'ever' group were in paid employment, while 86% of the never group were. The 'ever' group smoked an average 5.50 cigarettes a day, while the never group smoked just 2.99.

Most existing research on housing tenure and disadvantage has not been able to investigate whether the correlation between child and adult disadvantage and child and adult housing tenure is due simply to the fact that social housing is provided to people who are disadvantaged, or whether living in social housing makes some

additional contribution to disadvantage, or indeed whether it may counteract earlier disadvantage to some extent.

Our work is also unable to prove causal links between housing and later outcomes. However, the rich data in the cohort studies allow us to investigate whether there are associations that are not explained by many observable factors other than housing tenure. To do this, we introduced a formidable barrage of controls, with over 30 variables for the 1946 cohort, over 60 for the 1958 cohort and over 50 for the 1970 cohort. These included characteristics of cohort members' families and their own early behaviour and progress, which many other studies have found to be correlated with the sorts of adult outcomes we are looking at here. The controls included, for example, parents' education, occupation, income and interest in education, teachers' rating of child's progress, whether the child was bullied, how happy the child was, whether they wet the bed, their height and weight, and for the 1958 and 1970 cohorts, characteristics of their schools.

These controls are very powerful. They may not, however, cover all elements of individual disadvantage. They do not relate directly to factors which might have caused cohort members' families

to get social housing, including events such as job loss or relationship breakdown.

For those born in 1946, when we apply these controls to the differences between the adult outcomes of those ever and never in social housing in childhood, many of the associations are no longer statistically significant. For this generation, the correlations between childhood social housing and worse adult outcomes are at least mainly driven by the lasting effects of family and individual disadvantage of these children, rather than by anything to do with tenure.

However, statistically significant associations do remain even after controls for the 1958 and 1970 cohorts in every domain, although not for every indicator, and not at every age. For example, poorer outcomes mentioned above for the 1970 cohort at age 34 on self-rated health, smoking, employment and qualifications remain, even after the barrage of controls for individual characteristics, although the size of the associations is reduced. For example, about half of the gap between the 'ever' and 'never' groups on self-rated health, cigarettes smoked and employment remained.

Effect sizes are typically larger for the 1970 cohort. Notably, we did not find any situations

where the 'ever' group had more positive scores than their counterparts. Thus there is no evidence of social housing appearing to counteract earlier disadvantage with positive, 'value added' effects on adult outcomes.

We cannot be sure these differences were caused by childhood experience of social housing. Despite our extensive controls, it may be that elements of individual disadvantage, possibly including factors that explained arrival in social housing, have not been included. We have not looked at childhood experience of private renting or home ownership separately.

## Potential explanations

We proposed and tested a number of possible explanations for the link between childhood housing tenure and later adult outcomes.

### Neighbourhood effects

Social housing differs from housing in other tenures in many ways. We wanted to investigate whether associations found might be due to the nature of the areas in which social housing was found and the effects areas might have on children, for example through the environment or peer groups.

We are able to look at neighbourhoods for the 1958 cohort at ages 16 and 23, where some features of the cohort members' local neighbourhood of 100-200 homes were measured. Cohort members in social housing were more likely to live in areas of high unemployment, and with high proportions of social housing than were people in other tenures. However, neither area characteristic that we examined was consistently related to adult outcomes at all ages and across outcomes, and neither appeared to explain the individual-level association between childhood housing tenure and adult disadvantage.

### Regional differences and housing quality

Regions of the UK have different proportions of housing in different tenures, and also different patterns of adult outcomes. However, we found little to suggest any difference in the relationship between childhood social housing and adult outcomes in different regions. We were not able to explore intermediate areas such as local authorities.

We also investigated whether housing quality in childhood could be explaining some of the apparent tenure effect. We looked at whether children were ever overcrowded, lacked hot water or lacked a bathroom. Again, it does not appear that differences

in housing quality, at least the variables we were able to measure here, were driving our earlier results or that these measures significantly affect adult outcomes. There was no sign of positive effects of better conditions.

### **Housing trajectories in childhood**

However, the next factors we looked at offered more potential as mechanisms to link childhood tenure and adult outcomes. We looked for differences in outcomes of children who had moved into and those who had moved out of social housing during childhood. For both those born in 1958 and 1970, in every domain, the 'in' group fared worse than the 'out' group. The 'ever' in social housing group formed the majority of members of all cohorts, and may have been quite diverse. We did not break this down to examine differences within it. In particular, we did not examine, for example, how those who spent some or all of their childhood in social housing fared in comparison to those who spent some or all of their childhood in home ownership. It is possible, for example, that if compared against those in the private rented sector, the results of those ever in social housing would have been relatively more positive.

### **Gender differences**

We explored the associations between childhood tenure and adult outcomes for men and women separately. For all cohorts, there were more and stronger statistically significant associations between childhood social housing and adult outcomes for women than for men. For the 1958 cohort, almost all the statistically significant associations we found in the health and well-being domain relate only to women, and after controls, men who experienced social housing as boys were no more likely than their counterparts in other tenures to have worse health or well-being. For the 1970 cohort, most of the associations found between childhood social housing and adult outcomes were found both for men and women.

### **Young adult trajectories**

We also looked at the possibility that childhood tenure might be linked to adult outcomes through an influence on the pathways that young people follow into adulthood. We identified the time at which each 1958 and 1970 cohort member first moved into independent living, formed their first partnership and had their first child. Young men took longer to make all these transitions than young women. For both young men and young women, transitions varied considerably by the index of advantage – more advantaged young people

took less time to move into independent living, but more to move into partnership and parenthood. For example, in the 1958 cohort, the median age of first parenthood was 24.5 years for the least advantaged group and 29.4 years for the most advantaged.

There were also tenure differences, after controlling for level of advantage. Looking first at partnership, those born in 1958 who were in social housing at 16 formed first partnerships about six months earlier than those in home ownership. For the 1970 cohort, there was no tenure difference for men, but the difference for women was just under a year. There were more differences for parenthood. For the 1958 cohort, time to first parenthood reduced by approximately one and a half years for men and two years for women from social housing relative to those in owner-occupation. For the 1970 cohort, the comparable figures were approximately two and a half years for men and three years for women. Thus, women born in 1970 in the least advantaged quintile became parents on average at about age 25 if in social housing as a child, but at 28 if in owner-occupation as a child. This suggests that on average young people in social housing would experience the three significant life course events of independent living, partnership and parenthood in quicker succession, as well as at a younger age.

In summary, we found no evidence for some plausible possible explanations for the link between childhood housing tenure and later adult outcomes. The relationships between childhood housing tenure, differences between men and women and patterns of transition from youth to adulthood appear promising, but further research would be needed to work out whether and how they might be acting as causal pathways.

## Policy implications

These findings do not lead to specific policy recommendations but they do have important implications for current housing policy debate and in particular the connections that are made between tenure effects and tenure-based policy.

### Limited implications of 'tenure effects'

The first key issue that our work illustrates is how difficult it is to identify 'tenure effects'. 'Tenure', strictly speaking, relates to the ownership of property and the conditions on which it is held. However, our work shows how, even with extensive control strategies, it is hard to isolate these factors either from the characteristics of the people in particular tenures or from the wider context. It is hard to be sure that all relevant aspects of

individual disadvantage have been stripped out, leaving only a tenure effect. Even if it were, it is hard to separate these strict aspects of tenure (ownership and occupation) from the wider bundles of characteristics with which particular tenures are associated: factors such as location, area characteristics, cost, quality and status.

These points may seem technical but they are crucial for policy. Some of the policy debate following the Hills review of social housing has indicated an enthusiasm to utilise tenure-based interventions, narrowly defined, in the quest to influence other public policy outcomes. This has been particularly evident in discussion of proposals to facilitate moves between landlords or to change the length of tenancies in order to improve possibilities for job-related mobility, given high rates of worklessness and low rates of mobility among social tenants.

Our findings do not rule these out, but they certainly provide no justification for them. To determine the likely success of policies to manipulate tenure we would really need very fine-tuned research that could demonstrate a link between particular bundles of tenure characteristics (including those in tenures other than social housing, such as the experience of being a marginal owner-occupier

or shared owner) and particular outcomes. Such evidence is more likely to come from the controlled evaluation of policy interventions than from longitudinal survey data. It is important not to leap from negative outcomes associated with social housing to interventions based on specific tenure characteristics. Moreover, given the broad bundle of characteristics that make up tenure in reality, we should probably expect quite limited impacts on life chances from interventions that intervene only in tenancy conditions. Greater impacts would be expected from policies that tackle wider inequalities that are reflected in and associated with tenure.

### **Social housing: Transition not failure**

A second key issue is that tenures change. While clearly we can generalise that ownership may offer a certain mix of features and social renting another, most of the features are not inherent in a tenure as some kind of 'essence', but contingent and potentially changeable.

One of our objectives in this work has been to take stock of social housing, at least in the role it has played for families: to understand what has happened to date in order to inform policy going forward. We have illustrated how the reality and meaning of social housing changed for different generations of children, and indeed

within generations. The scale of slum clearance and building in the 1960s, for example, and the rapid sale of council housing stock in the early 1980s, effected significant changes over short time periods. Over the period as a whole, social housing moved from being a relatively scarce and sought-after option for families to being primarily a housing resource for those most in need. Over the same period, negative outcomes associated with it have appeared to worsen.

This review points to the need for strong historical context to frame debates on housing policy. From the current 'progressive' policy perspective, one interpretation that might be drawn from our findings of a negative link between childhood social housing and adult outcomes is that social housing has failed to deliver better life chances for the people it has housed. At least, it may be seen as disappointing that there appear to have been no discernible long-term benefits from the stability and low rents that social housing provided for families with children.

However, our research also demonstrates that, measured against some of its original objectives, social housing has been very successful. In its early years, it contributed to the dramatic reduction in 'squalor' – one of the 'five giants' that Beveridge hoped the post-world war two welfare state would

kill. For families, it largely replaced the insecurity of the private rented sector. It enabled those on moderate incomes to be in a position to move into home ownership as their families matured, while continuing to act as a safety net for the poorest families who could not afford other options. More recently, progress to secure Decent Homes in the social sector has meant that some of the worst conditions are now in parts of the private sector. We can only speculate about the long-term impact these conditions might have had. Instead of a 'failure' account, we suggest that our historical work demonstrates the role of mass social housing in a transitional period in later modern Britain – establishing better housing conditions and providing the security and affordability not available elsewhere in the system (Harloe, 1995).

### **Future directions: The contribution of wider social policies**

This raises fundamental questions about what we should expect housing policy to do now. Clearly a return to a post-war housing system is neither possible nor desirable. Social housing's relative advantage at that time was, of course, partly due to housing shortages and very poor conditions in the private rented sector. Nor are large-scale transformations justified by the size of the associations we report. However, our work



does suggest that if we expect social housing not to compound disadvantage, and perhaps to help, we would have a better chance if the sector had broader appeal and greater relative advantages. A substantial and sustained effort (going beyond Decent Homes and focusing on place as well as housing) would be needed to give social housing better parity of quality and desirability. We would also need to consider broader usage, including people from more advantaged backgrounds.

In one sense, the current recession provides an opportunity to rethink social housing as a broader tenure, as the hazards of marginal owner-occupation become clear and people from a wider social group may find themselves falling back on social renting. However, it is far from evident that the long-term shift in aspirations towards home ownership has been reversed, nor whether the public is prepared to subsidise housing other than for those who are most in need. There are also clear implications for supply, since the demand from people in the greatest housing need must also be met. Moreover, we are now in a situation of greater socio-economic inequality than in the post-war period, which makes broader usage more difficult to achieve and makes it especially important that social housing should meet the needs of the most vulnerable. For these reasons, any changes

to social housing access would need to be part of a cross-tenure approach (including, for example, looking at how the private rented sector could work more effectively for some of those who are currently in social housing), and applied in tandem with a reduction in inequality so that the same disadvantaged people were not simply displaced into other tenures.

Our purpose here is not to make specific recommendations but to highlight the need for a historically informed and broad debate about social housing's role and future, if we expect it also to contribute to broader life chances. A 'progressive vision' of social housing's role must be a wide one.

Finally, we emphasise that social housing 'effects' should not just lead to social housing policies. Social housing policy has certainly contributed both by accident (eg poor quality designs leading to declining quality) and design (eg the Right to Buy) to social housing's shrinking role and its concentration on the most disadvantaged. These are lessons that need to be borne in mind for the future. However, the residualisation of the sector that we demonstrate so clearly in this report has also come about because of wider housing policies to support home ownership and as a result of broader social and economic changes.

The growth of the middle class and increasing aspiration towards home ownership as well as the increasing availability of mortgages has helped leave social housing behind. De-industrialisation, globalisation and technological change, combined with the expansion of higher education and female professional employment have made sure that those who are left behind in society (and in social housing) are further behind than they previously were (Hills 1995, Glennerster et al, 2005). Social housing, like other parts of the welfare state, has to run harder to stand still in the face of growing social inequality, and has in practice become less able to promote positive life chances in these circumstances (eg Taylor Gooby, 2004).

The more that we target social housing on the disadvantaged, the more complex and intractable the problems in the tenure become, and the less can be expected of policies that manipulate tenure characteristics in isolation. In this sense, our research points more clearly to the need to reduce inequality, irrespective of housing, than it does to housing policy changes. In some respects, we might expect housing policy to do less, not more, with other social policies targeted towards those who need social housing to ensure that the disadvantage with which they enter the sector does not develop and continue over the life course.

# Introduction

This report examines the role that social housing has played for children and families in Britain from the second world war to the present day, and explores the links between housing and other aspects of people's lives as they move from childhood to adulthood. Building on the work of Feinstein et al (2008) on *The Public Value of Social Housing*, it aims to illuminate the relationship between housing in childhood and later outcomes, and thus to inform current policy debate on the future of social housing and its role in tackling social exclusion and promoting greater equality and social mobility.

In the pre-war period, the 1940s and much of the 1950s, social housing was a relatively scarce resource, built to high standards and typically accessible only to 'respectable' working families. Its large-scale expansion after the war was an egalitarian attempt to tackle an acute housing shortage and bring better housing conditions to a greater share of the population (Power, 1987; Malpass, 2000). However, as home ownership rates increased from the 1950s, and high-volume building, much of it for slum clearance, replaced the post-war emphasis on quality, the standard and status of social housing slipped (Tucker, 1966). The introduction of the Right to Buy in 1981 removed much of the most desirable stock from the

sector, without replacement building (Forrest and Murie, 1988). Since then, during a period of rising inequality and increasing child poverty, the social housing sector has been in decline, both in absolute numbers and as a proportion of the overall housing stock (Holmans, 2005). Both as a response to reduced supply, and as a matter of policy, allocations to social housing have increasingly been to people with the greatest housing and social need, to the extent that being a social housing tenant has formed an element of central government indices of deprivation since the 1980s (Lee et al, 1985). Neighbourhoods dominated by social housing are frequently the location for concentrated multiple disadvantage: lower incomes, poorer health, lower education attainment and participation, and higher rates of worklessness, as well as poorer environments and lower satisfaction with home and neighbourhood (Hills, 2007).

What is not known, however, is whether the correlation between disadvantage and housing tenure is due simply to the fact that social housing is provided to people who are disadvantaged, or whether living in social housing makes some additional contribution.

Although many new social tenants are from disadvantaged groups and claiming benefits, it

cannot be assumed that social housing tenure causes or compounds these problems. Indeed it may mitigate the negative consequences of even worse circumstances that people would have to endure in the absence of social housing. Recent qualitative research commissioned by the Department for Work and Pensions suggests, for example, that although many social tenants are not working, social housing is not a cause of worklessness. Social tenants thought that social housing provided benefits to them in seeking and keeping work, such as low rents and security of tenure, but these were not always sufficient to help them overcome other barriers to work (Fletcher et al, 2008).

The question of social housing's contribution is an important one. Fundamental questions are currently being asked about social housing's future role. In England, the government has commissioned three major reviews in the last two years: of the future roles of social housing (Hills, 2007), of social housing regulation (Cave, 2007) and of the private rented sector (Rugg and Rhodes, 2008). Position statements and think-pieces on the need to rethink housing's future have emerged from both right- and left-wing think tanks (Dwelly and Cowans, 2006; Centre for Social Justice, 2008) as well as professional housing institutions (CIH 2008).

In Scotland, housing policy has also been under review, but the fundamental role and nature of social housing has not been questioned in the same way, and instead some of the fundamentals of policy of the past thirty years, including the Right to Buy, have been challenged (The Scottish Government, 2007).

At the core of many of these contributions is a view that housing policy must be integrated as part of an active welfare state – a potential tool to influence outcomes in other areas of social policy. This was not an explicit goal of post-war policy, with its focus on providing more homes and on tackling 'squalor' (Timmins, 1995). Bennett (2008 p5) summarises this "progressive vision for social housing" as one "that goes beyond simply housing provided at sub-market costs, but as a means for promoting social justice, personal responsibility and independence, access to opportunities and social mobility".

In commissioning John Hills' review in 2006, Secretary of State Ruth Kelly specifically asked to what extent social housing could contribute to other objectives including mixed communities, social mobility and labour market opportunities. Hills' findings that social housing was strongly associated with spatial segregation and immobility between tenures, growing housing wealth inequalities, high worklessness and low residential mobility have been

taken up on both sides of the political spectrum. Both Labour and Conservative proposals now indicate a new willingness to use housing policy, and particularly the conditions of social tenancies, to encourage job-seeking and other constructive behaviours.

At the same time, however, both recent house price inflation and now the current credit crisis and economic downturn serve to demonstrate the need for housing policy not to lose sight of its core objective to provide decent, secure and affordable homes (Hetherington, 2008). Without better evidence of any actual influence of housing over other outcomes, it is still unclear what we can and should expect of housing policy in contribution to broader social policy goals, in the light of the need also to respond to more immediate concerns of housing demand and homelessness. What is more evident, as Feinstein et al (2008) concluded, is the need for other areas of social policy to respond in a co-ordinated way to the accumulated disadvantage in social housing by supporting social tenants in other areas of their lives.

Building on the Feinstein et al. work, in which many of the team were involved, we tackle these issues of social housing's role and contribution in three distinctive ways. Firstly, we take a life-course

approach, examining experiences in childhood and how they are linked to later life circumstances. Our focus is on housing tenure in childhood and its relationship, if any, to later trajectories of disadvantage. We draw on data from the British birth cohort studies: four longitudinal studies that have taken a cohort of babies born in the same week in a single year or sampled over a one-year period and surveyed them at regular intervals throughout their lives, covering a whole range of issues including education, employment, health and relationships as well as housing. The earliest cohort was born in 1946, later ones in 1958, 1970 and 2000. Thus we can follow three generations of children into adulthood, as well as comparing their childhood experiences with those of today's children, the contemporary generation.

Secondly, we take advantage of this exceptional data resource to make explicit cross-generational comparisons – illuminating the different meanings of growing up in social housing under different policy regimes and in different social and economic circumstances. In doing so we add unique individual-level data, particularly on children, to a picture of changes in social housing previously established mainly through area-level census data and administrative records.

Thirdly, we try to control for many of the disadvantages that distinguish people who live in social housing from those who do not, to assess whether the social housing experience itself is associated with later outcomes. The availability of such a wide range of data on many aspects of people's lives, and at different ages, helps us to go further than many previous accounts in attempting to control for other factors to isolate the impact of social housing from the impact of these other factors. Furthermore, the life-course approach enables us to investigate the possible mechanisms for the impact of social housing on adult outcomes.

We start the report (Chapter 1) by setting out some of the broader historical context shaping the lives of our four generations of children – changes which have profoundly influenced housing demand and aspirations, as well as the life chances of working class children.

Chapter 2 focuses on housing changes 1946-2008 and on how these affected the composition of the social housing sector, at least for families.

In Chapter 3 we start to explore relationships between housing tenure in childhood and later outcomes in five different domains of life: health, well-being, income, employment and education, across the generations.

Chapter 4 looks inside the 'black box' to try to illuminate the mechanisms that might connect childhood tenure and adult outcomes.

Chapter 5 returns to the policy arena and considers what these findings mean for policy, and what further questions still remain to be asked.

# Chapter 1

## Four generations of children from 1946 to the present day

### Chapter summary

- The report draws on data from the four British birth cohort studies, which have traced large samples of people born in 1946, 1958, 1970 and 2000 with regular and wide-ranging interviews throughout their lives. It compares the childhood experiences of four generations of children, and the adult outcomes of three (the 2000 cohort not having reached adulthood). This chapter sets the scene
- The period from 1946 has been one of vast social and economic change in Britain. Key changes include de-industrialisation, rising affluence and rising inequality, the economic advancement of women, increased education, later marriage and more divorce. We show how each successive cohort has grown up in a different context
- Later in the report, we look relationships between childhood housing and adult outcomes in five domains of life: health (and health behaviours), well-being, income, employment and education. In this chapter we look at overall trends in these outcomes over the period, regardless of tenure. Comparing the cohorts, we can see that people have on average, become better educated and (for women) more likely to be in paid employment, and more confident about the degree of control they have over their lives. In one major respect at least, cigarette smoking, they are behaving more healthily. However, they have become a little less satisfied with life, feel a little less healthy and are much more likely to be overweight. On the whole, women are increasingly seeing more beneficial outcomes than men. Many outcomes have become more polarized by social class
- This forms the context in which housing changes need to be considered

## The British birth cohort studies: Four generations of children

The data we use in this report are drawn from four separate birth cohort studies, between them covering the entire period of mass social housing in Britain. Each study follows a cohort of children born in the same year, surveying them at regular intervals throughout their lives. Detailed information is gathered about all major domains of life, including health, intelligence and cognitive function, educational attainment, family and socio-economic circumstances, occupational history, parenting and social attitudes (Wadsworth et al, 2003).

The oldest study is the Medical Research Council National Survey for Health and Development (NSHD), which took as its subjects all 16,500 births that occurred in England, Scotland and Wales during one week of March 1946. A follow-up survey was designed to examine the health and development of a representative sample (5,362) of this population, who have now been interviewed on 21 separate occasions.

Twelve years later, in 1958, the National Child Development Study (NCDS) began surveying more than 17,000 people born in a single week in March

in England, Scotland and Wales. They have been followed on seven further occasions since.

Twelve years later again, the British Cohort Study (BCS70) took a sample of all babies (again about 17,000) born in England, Scotland and Wales in one week in April 1970. Information has been gathered from this cohort on six subsequent occasions.

At the turn of the century, the Millennium Cohort Study (MCS) provided a fourth cohort. This survey took a sample of live births in the UK over 12 months from 1 September 2000 in England and Wales and 1 December 2000 in Scotland and Northern Ireland (nearly 19,000 babies). Information on these children has now been collected three times.

Members of one cohort are not the parents of the next, and nor in some cases are they old enough to be so. However, as others have often done (eg Wadsworth et al, 2003), we refer to the four cohorts as 'generations' – a familiar term which captures the distinctive experiences of people born in different eras. The children of the NSHD (or 1946 cohort), our first generation, enjoyed most of their childhood in the 1950s. The NCDS children (1958 cohort) grew up in the 1960s and early 1970s. They were the young adults of the Thatcher years and celebrated their 50th birthdays last year. The BCS children (1970 cohort) grew up in the 1970s and



**Table 1 The British birth cohorts: From childhood to adulthood**

	Early childhood (0-5)	Mid childhood (6-16)	Early adulthood (17-30)	Early middle adulthood (31-50)	Late middle adulthood (51-65)
<b>NSHD (1946)</b>	<b>1946-1951</b>	<b>1952-1962</b>	<b>1963-1976</b>	<b>1977-1996</b>	<b>1997-2011</b>
Ages surveyed	0, 2, 4	6, 7, 8, 9, 10, 11, 13, 15	19, 20, 22, 23, 25, 26	31, 36, 43	53
<b>NCDS (1958)</b>	<b>1958-1963</b>	<b>1964-1974</b>	<b>1975-1988</b>	<b>1989-2008</b>	
Ages surveyed	0	7, 11, 16	23	33, 42, 46	
<b>BCS (1970)</b>	<b>1970-1975</b>	<b>1976-1986</b>	<b>1987-2000</b>	<b>2001-2020</b>	
Ages surveyed	0, 5	10, 16	26, 30	34	
<b>MCS (2000)</b>	<b>2000-2005</b>				
Ages surveyed	3, 5, 8				

Adapted from Wadsworth et al. (2003)

Note: The 1958, 1970 and 2000 cohorts were all surveyed in 2008, but results are not yet available so are not included here.

1980s and were young adults during the recession of the late 1980s and early 1990s. Our fourth generation, the MCS (millennium cohort) are the children of the 2000s, currently at primary school.

Table 1 shows the historical periods at which each of the cohorts entered different phases of life, from early childhood onwards to the current period. This demonstrates how using the four cohorts together enables us to compare the experiences of successive generations at similar ages (eg

at age 16), at the same life stages (eg entering parenthood), as well as understanding development over the life course within and between generations.

Appendix A provides more details about the studies, including the change in achieved sample sizes over time – needless to say, some of the cohort members have emigrated, died or become impossible to trace over time, while some have missed being surveyed at particular sweeps but later rejoined. In

all cases, sample attrition is surprisingly low, given the scale of the tracing task. All of the studies are still ongoing, with new information being collected at regular intervals. Together, they provide an unparalleled resource with which to understand development across the life course and to compare the experiences of people living under different social and economic conditions and policy regimes. However, they have been relatively rarely tapped for housing purposes, and that is our objective here.

## **Social and economic change since the second world war**

Before we talk about housing, however, we need to remind ourselves of the wider context for housing and housing policy.

The period of our study was one of vast social and economic change in Britain. Key developments have been usefully summarised by Wadsworth et al (2003) as follows:

- population growth, and change. The population has aged, partly due to improvements in nutrition, housing and healthcare. It has also become more ethnically diverse<sup>2</sup>
- the decline of manual labour, from 64% of jobs in 1951 to 38% in 1991, and the growth of middle class occupations, along with the increasing employment of women
- the expansion of education, and a 'catching up' of women's education with men's. The 1946 generation were the first to experience free compulsory secondary education, up to the age of 15. The school leaving age was raised to 16 in 1972. In the 1950s, less than ten per cent of people of 'student age' were in full-time higher education, compared to nearly 40% now
- a de-skilling of the workforce, particularly from the 1970s onwards and a decline in opportunities for school leavers to train for skilled employment on the job or through formal apprenticeships
- a decline in marriage and increase in divorce. In 1941-45, over two-thirds of women were married compared to two-fifths 50 years later

<sup>2</sup>Although increasing ethnic diversity is one of the most important changes that has occurred in this period, it is not one which we are able to address in the current work. Because of the long gap after the 1970 cohort before another study was commissioned, the 2000 cohort is the first to have substantial ethnic diversity. Since our focus in this report is on adult outcomes, and the 2000 cohort are still in childhood, we are not able to capture the difference that ethnic diversity has made.

(Coleman 2000). Lone parents were just eight per cent of families with children in 1971, and 25% by 1998 (Coleman and Schofield 2001)

- later in the period, a postponement of marriage and childbearing. Into the 1980s, women typically had their first child in their early 20s. By the millennium, the late 20s was the typical age
- overall growth in standards of living, home and car ownership, but accompanied by rising inequality (since the late 1970s) and concerns about social exclusion. A period of high employment in the 1950s and 1960s followed by a long period of high unemployment from the 1970s to the mid 1990s

Other studies have documented these changes in detail drawing on the cohort studies (Ferri et al, 2003). We summarise the changing contexts for the lives of our four generations of children in Table 2.

## Adult outcomes in five domains of life

What effect has growing up in, and living through, these different social and economic contexts had on the adult experiences of members of the different cohorts? Has life got better or worse? Who is healthier, happier, more educated, or more

likely to be employed? How do these outcomes change through the life course? This is vital context for the remainder of this report, in which we look at social housing over this period. For the three earlier cohorts, where cohort members have reached adulthood, we look not only at the circumstances of families and children in social housing relative to other tenures, but at the relationship between growing up in social housing and later circumstances in adult life. However, life was changing for everybody, not just social housing tenants.

We look at adult outcomes in five domains:

- health and health behaviours
- well-being
- employment
- income
- education

These commonly feature in studies of disadvantage and social exclusion, although they are not exhaustive – there are domains of inclusion, such as participation in social or civic life, identity, security or freedom from discrimination, which are also important but which we are not able to measure consistently with the data available to us here. Our

**Table 2 Comparison of generational experiences**

	Childhood	Early adulthood	Mid adulthood
<b>NSHD (1946)</b>	(1946-62) High parental employment Most parents low education Parents likely to have married and had children early Baby boom Free compulsory education in grammars and secondary moderns	(1963-76) Initially high employment, later recession Expanding higher education Sexual revolution, feminism, decline or postponement of marriage	(1977-) Continuing de-industrialisation, high manual employment, professionalisation Rising inequality Later marriage and childbearing Growth in divorce rates
<b>NCDS (1958)</b>	(1958-74) Initially high employment, later recession Slightly lower fertility among parents Comprehensive education	(1975-88) Period of high unemployment and rising inequality Professionalisation of work force Expanding higher education, delayed marriage and childbearing	(1989-2008) Initially high unemployment, falling later then economic growth from mid 1990s Continuing manufacturing losses Growth in financial and business sectors and services Later marriage and childbearing, more divorce Globalisation, technology, travel
<b>BCS (1970)</b>	(1970-86) Period of high unemployment and rising inequality Oil crisis and decline of traditional industries Comprehensive education Higher education among parents and more mothers likely to be working	(1987-2000) Mainly a period of high unemployment and rising inequality. Growth in financial and business sectors and services Expanding higher education, delayed marriage and childbearing Globalisation, technology, travel	(2001-) Economic growth, consumer spending and credit Globalisation, technology, travel Later marriage and childbearing, more divorce Recession from 2008
<b>MCS (2000)</b>	(2000-) Higher education among parents, mothers working Many older parents and higher numbers of lone parents Economic growth, high standard of living and indebtedness, leading to recession from 2008. Technology and travel. Educational 'choice', specialist schools and academies		

five domains give a broad picture across different aspects of life.

Within each domain, we look at a selection of indicators that enable us to compare between studies, and over time within each cohort. The surveys did not always ask the same questions as each other, or the same questions at every age. As would be expected, the topics of interest and the wording of questions have changed over 60 years. In particular the measures available in the NSHD (1946 cohort) tend to differ from those available for the later cohorts, and in these cases we have chosen the most similar measures available to gain coverage in all the domains. The set of indicators is shown in Table 3.

Table 4 shows how each variable is measured, to aid interpretation of the results. There are three kinds of variable:

- numeric variables, eg the number of cigarettes smoked

- scale variables, eg life satisfaction on a scale of one to ten
- binary variables, eg whether admitted to hospital or not

If we look at the indicators for which we have the most consistent set of measures<sup>3</sup>, we can see that the overall picture in the education and employment domains is of improvement, particularly for women.

Compared at similar ages, the percentage of cohort members in employment rose between the 1946, 1958 and 1970 cohorts. 73% of the 1946 cohort were in paid employment at age 31 (in 1979), compared to 79% for the 1958 cohort at age 33 (in 1991) and 81% for the 1970 cohort at age 30 (in 2000). This increase was driven by higher employment among women (Figure 1). Qualifications have also improved with each cohort, dramatically between 1946 and 1958 cohorts, and more so for women. For the BCS cohort members at age 30 in 2000, women on average had slightly higher qualifications than men.

<sup>3</sup>Data in this section and throughout the report are based on the whole sample surveyed at each sweep, not a sub-sample of people who answered every time. To some extent differences between sweeps will be the product of differential attrition – ie different people are in the survey each time (and some are more likely to drop out than others). Estimating the impact of differential attrition was beyond the scope of this project. To be on the safe side, we should assume that people who are more disadvantaged are more likely to leave the surveys than others, so trends that show improvement can be regarded as erring on the optimistic.

**Table 3 Outcome measures used in the report**

	NSHD					NCDS				BCS		
	26	31	36	43	53	23	33	42	46	26	30	34
<b>Health and Health behaviours</b>												
Hospital admissions		✓	✓	✓								
Self-rated health	✓					✓	✓	✓	✓	✓	✓	✓
Malaise Score						✓	✓	✓			✓	✓
Depression						✓	✓	✓			✓	✓
Nervous disorder			✓	✓								
Cigarettes		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Obesity		✓	✓	✓	✓	✓	✓	✓			✓	
Exercise							✓	✓	✓		✓	✓
<b>Well-being</b>												
Life satisfaction							✓	✓	✓	✓	✓	✓
Low self-efficacy							✓	✓	✓		✓	✓
<b>Employment</b>												
In paid employment		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
<b>Income</b>												
On means-tested benefits						✓	✓	✓			✓	✓
Financial problems			✓	✓	✓							
<b>Education</b>												
Highest level of qualifications	✓					✓			✓	✓		✓
Literacy or numeracy problem						✓	✓	✓			✓	✓

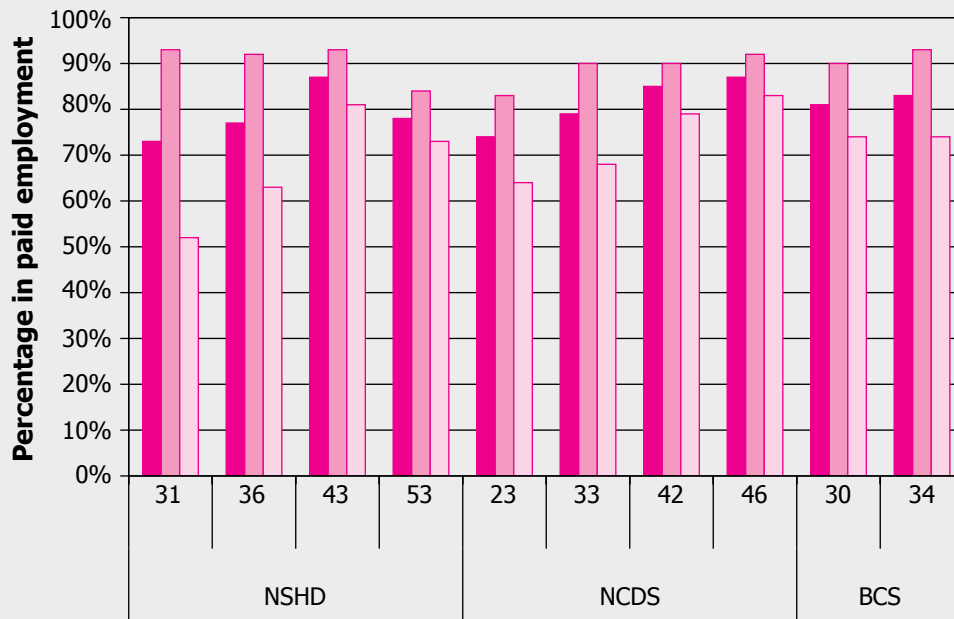
Notes: Only the three earlier cohorts are shown here – the millennium cohort not yet having reached adulthood. We only use highest level of qualifications at the youngest age (and oldest where available) since most people acquire their highest qualification before age 23-26. Depression is measured at age 30 in BCS using the malaise inventory and age 34 using a single item.

**Table 4**      **Details of measures used**

Variable	Type	Detail
Hospital admissions	Binary	Whether or not spent a night in hospital since the last time you were in hospital
Self-rated health	Scale	Four-point scale (poor, fair, good and excellent)
Malaise	Scale	Inventory of 24 'yes-no' items covering emotional disturbance and associated physical symptoms. Scores range from 0-24, except at age 34 in BCS where a nine-point scale was used
Depression	Binary	'Yes' if eight or more positive responses on the malaise scale  Except at age 34 in BCS, where cohort members were asked whether they have suffered from any conditions (including depression) since the last interview
Nervous Disorder	Binary	Nervous or emotional trouble or persistent depression
Cigarettes	Numeric	Number of cigarettes smoked daily
Obesity	Binary	Body mass index [BMI] $\geq 30$ kg/m <sup>2</sup>
Exercise	Binary	Whether took part regularly in any physical activities or exercise for most of the year (regularly means at least once a month, for most of the year)
Life satisfaction	Scale	Ten-point scale (from completely dissatisfied to completely satisfied) on individuals' assessment about how their life has turned out so far
Low self-efficacy	Scale	Four-point scale based on number of less positive choices on three questions in which cohort member asked to choose which statement is more true for them, eg "I never seem to get what I want from life" or "I usually get what I want out of life"
In paid employment	Binary	Whether main economic activity is paid employment (or self employment), whether part time or full time
On means-tested benefits	Binary	Whether in receipt of means-tested benefits
Financial problems	Binary	Whether cohort members stated that it was "really quite hard to manage" (as a family) on their present income
Highest level of qualifications	Scale	A five point scale, from no qualifications, below O-Level, O-levels or GCSE, A-Level, degree or above
Literacy or numeracy problems	Binary	Self-assessment of problems with literacy or numeracy

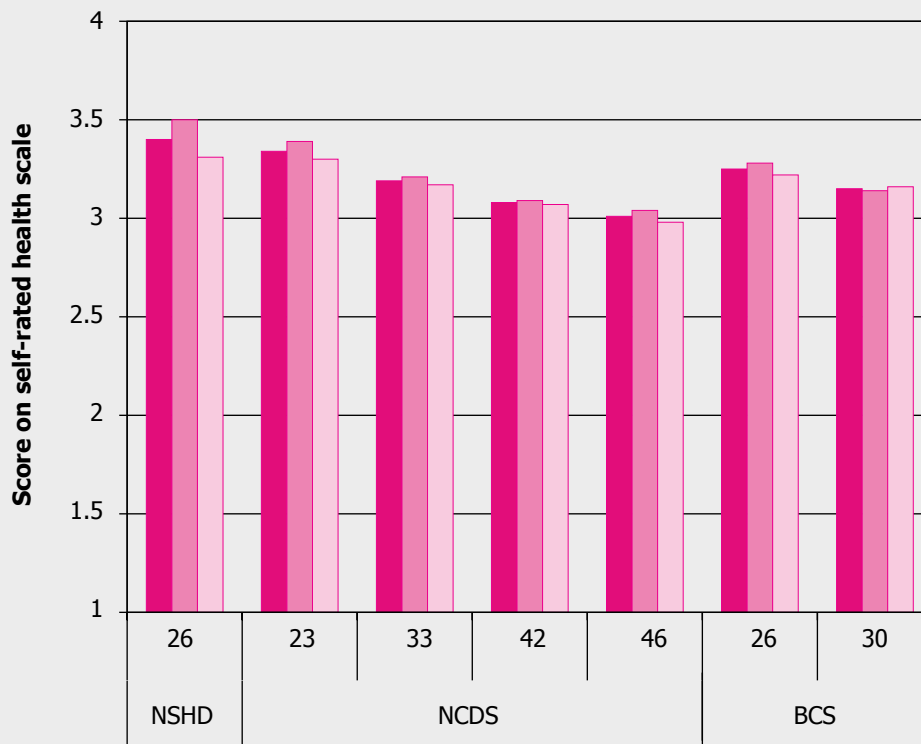
**Note:** Means-tested benefits varied over the sweeps due to changes in the benefit system and the detail of information available: income support, unemployment benefit and family credit or their equivalents were included in all or most of the sweeps, housing benefit in two sweeps and council tax benefit in one sweep.

Figure 1 Percentage of cohort members in paid employment, by gender



■ In paid employment all     
 ■ In paid employment men     
 ■ In paid employment women

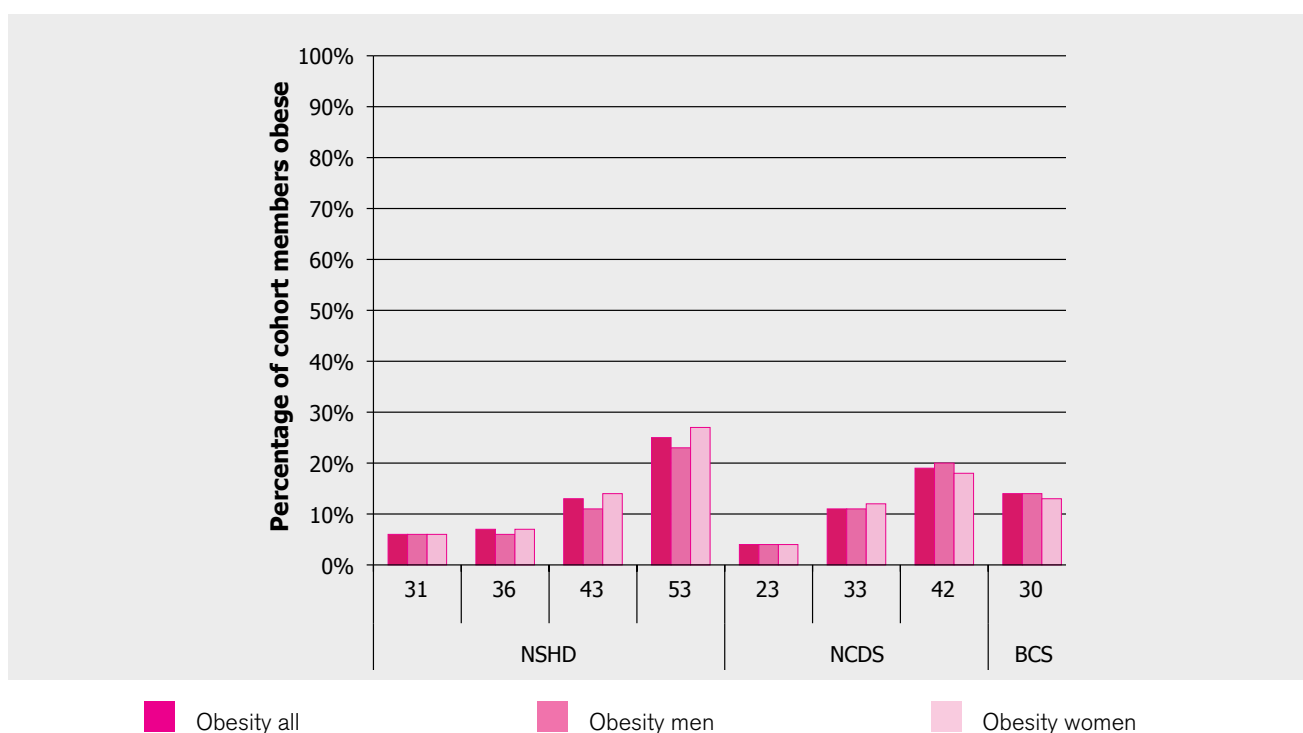
Figure 2 Mean self-rated health of cohort members, by gender



■ Self-rated health all     
 ■ Self-rated health men     
 ■ Self-rated health women



Figure 3 Percentage of cohort members obese, by gender



However, when we look at indicators in the health and well-being domains, we tend to see a worsening picture from one cohort to the next and in many cases a worse picture for men than for women. Self-rated health tends to decline as people get older, but has also declined slightly

from one cohort to the next, when we compare the experiences of cohort members in their early 20s. Men at every age consistently rated their health more highly than did women, with the exception of women at age 30 in the BCS (in 2000) (Figure 2)<sup>4</sup>. Obesity has risen dramatically between cohorts,

<sup>4</sup>In most sweeps self-rated health is measured on a four-point scale (from poor to excellent). In some there is five-point scale (from very poor to excellent). For consistency 'poor' and 'very poor' have been combined.

Figure 4 Mean life satisfaction of cohort members, by gender



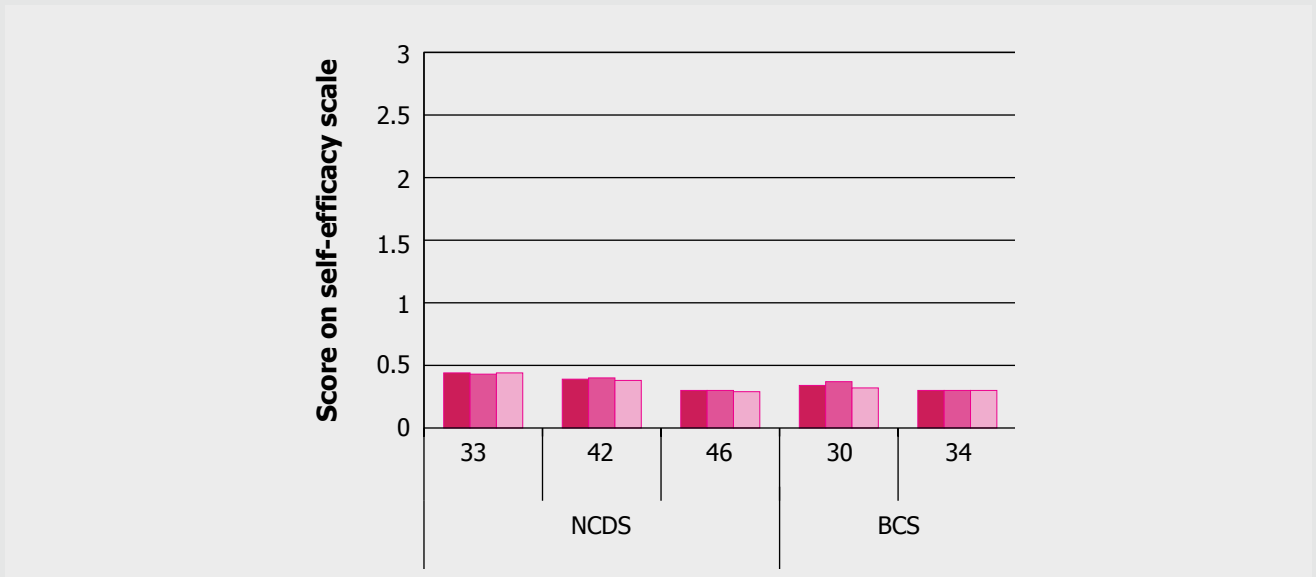
and also tends to increase with age. At the most recent sweep at which this was measured (for the 1958 cohort at 42 and the 1970 cohort at age 30 in 2000), men were slightly more likely to be obese than women (Figure 3). Life satisfaction was also slightly lower for the later cohort, with women being more satisfied with life in general than men, and increasingly so (Figure 4)<sup>5</sup>. However, these are

small variations – life satisfaction is generally high and stable.

By contrast, scores for ‘low self-efficacy’ have fallen slightly from NCDS to BCS, comparing similar ages, which suggests that people feel increasingly able to direct their own lives and get what they want out of life (Figure 5). Cigarette smoking has also declined.

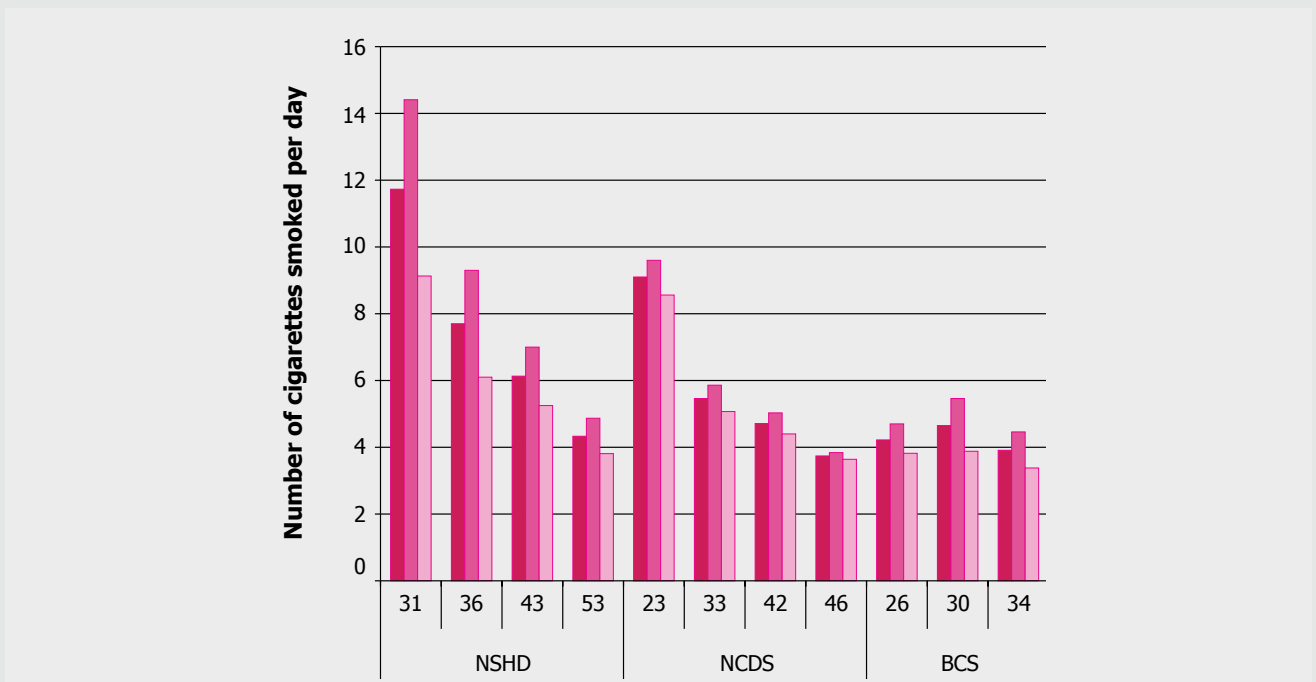
<sup>5</sup>For life satisfaction and self efficacy, we only have data for the NCDS (1958) and BCS (1970).

Figure 5 Mean score for low self-efficacy of cohort members, by gender



■ Low self efficacy all     
 ■ Low self efficacy men     
 ■ Low self efficacy women

Figure 6 Mean number of cigarettes smoked per day by cohort members, by gender



■ Cigarettes all     
 ■ Cigarettes men     
 ■ Cigarettes women

Thirty-one-year-olds in the 1946 cohort smoked on average nearly 12 cigarettes a day, compared to fewer than six for 33-year-olds in the 1958 cohort and fewer than five for 30-year-olds in the 1970 cohort. At every sweep, men have smoked more cigarettes than women (Figure 6).

Thus, comparing the cohorts, people have on average, become better educated and (for women) more likely to be in paid employment, and more confident about the degree of control they have over their lives. In one major respect at least, cigarette smoking, they are behaving more healthily.

However, they have become a little less satisfied with life, feel a little less healthy and are much more likely to be overweight. On the whole, women are increasingly seeing more beneficial outcomes than men. This picture is shown more fully in Appendix B which lists average values for all these variables, for men and women at each age in each cohort. 'On average' is a key term. Bynner et al (2003) demonstrate that this era of increasing affluence, greater choice and individualism, and the educational and occupational advancement of women, has delivered benefits mainly to the middle classes. In most domains, life outcomes have become more polarised by social class. Those leaving school with no or few qualifications have been increasingly left behind in the labour market,

as manual jobs have disappeared. While middle class women have overtaken men in terms of qualifications and delayed childbearing in order to further their careers, women at the lower end of the socio-economic scale have continued to take faster routes to parenthood. One consequence of labour market difficulties faced by educationally disadvantaged young men has been an increased tendency to singledom and they are remaining in the parental home for longer periods. Health-damaging behaviours, depression and obesity continue to have the highest prevalence among those from the manual social class.

The effects of large-scale systemic policy change, such as the expansion of higher education, are clearly evident in these trends, but the picture of large social and economic changes that is painted by these data also remind us of the limited effect that smaller-scale policy changes are likely to have. Policy interacts with, responds to, and is sometimes overwhelmed by, broader social-economic change. It is against this backdrop that our study of housing is set.

# Chapter 2

## Housing change from 1946 to the present day

### Chapter summary

- Social housing has played an important part in post-war British childhoods. Over a third of the 1946 cohort were in social housing at age six, and nearly a third of the 1970 cohort at age five in 1975. However its role has declined. Only 21% of the children born in 2000 cohort were in social housing at age five. The proportion in owner-occupied homes has steadily increased
- Initially, most people who moved into social housing came from private renting. It was a step up in quality, as the vast majority of contemporary social rented homes had good amenities
- There has been a social class gradient in housing since the second world war but it has become increasingly steep. By the time the 2000 cohort were aged five, the gap between tenures in terms of socio-economic advantage had grown hugely: just two per cent of the most advantaged quintile on an 'index of advantage' were in social housing, compared to 49% of the least advantaged
- A clear story emerges of the increasing relative disadvantage of mothers in social housing. For example, the proportion of children born to a lone mother in home ownership hardly changed between 1970 and 2000, while the proportion in social housing grew from six per cent to 28%
- Alongside the increasing disadvantage of its residents, as time passed social housing began to lose out to other tenures in terms of quality and desirability, measured by overcrowding, amenities and dwelling type
- Thus, over successive generations, children growing up in social housing experienced several cumulative processes of disadvantage:
  - as individuals, they were more likely to come from disadvantaged families
  - given the increasing disadvantage of social renting households generally, they were more likely to be surrounded by disadvantaged neighbours
  - their homes were more likely to fall short in quality and desirability in absolute terms and relative to other tenures
- There is a bigger tenure divide in terms of socio-economic advantage/disadvantage among today's children than any previous postwar generation

## **Social housing since the war: Growth, variation and decline**

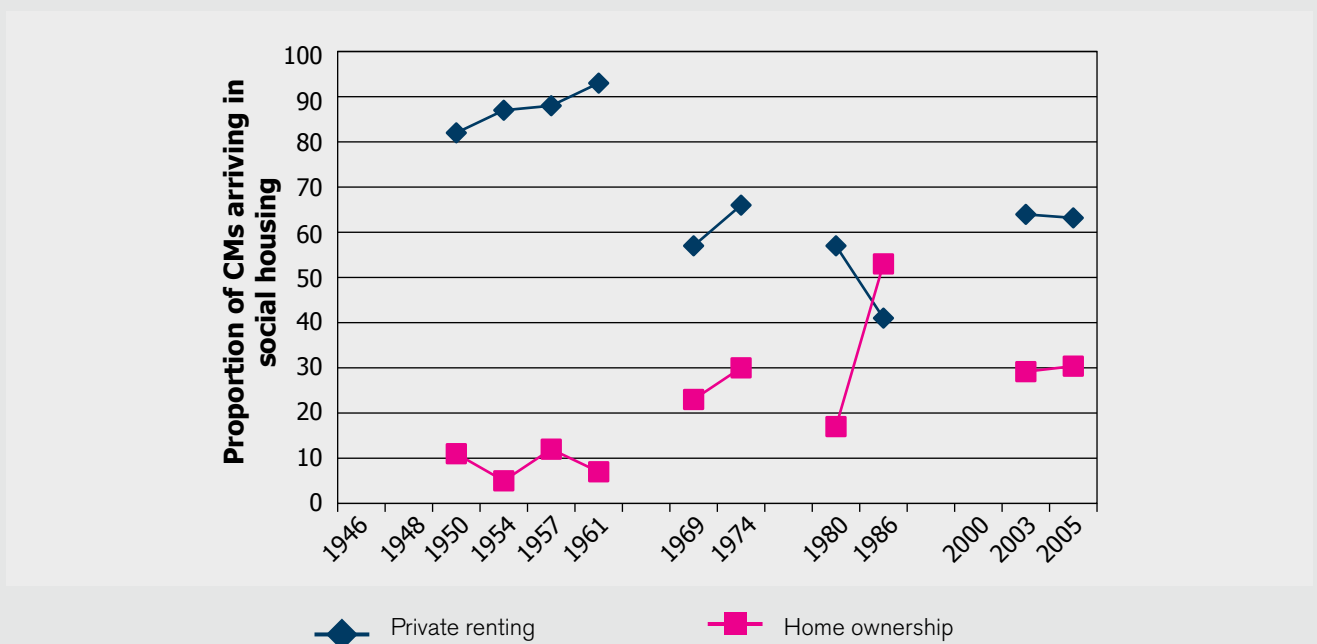
Vast social and economic changes since the second world war have been mirrored by transformation in the housing system overall and in the nature and role of social housing. Each of the generations that we follow in this report grew up in very different housing systems, in which social housing had a different physical form, role and meaning. In this chapter, we document these changes, drawing on census data and secondary sources as well as new analysis of the cohort studies themselves. We focus on the childhoods of the cohort members, providing insights into the changing role of social housing for families and vital context for our later analysis of relationships between childhood social housing and adult outcomes.

In 1946, when our first generation were born, there were one million council homes in the UK (Glendenning and Muthesias, 1994), providing homes for an estimated ten per cent of all households. Local authorities and voluntary organisations, later known as housing associations, had begun building homes on a very small scale in the late 19th century. A substantial government-supported council house building programme

started after the first world war, when the 1919 Housing Act aimed to provide 'homes fit for heroes'. Development started patchily across the country, but by 1946 all local authorities had taken on a direct housing role. Nevertheless, social housing on a large scale was a sufficiently recent phenomenon that parents of the 1946 cohort members who were living in social housing were likely to have been the first generation in their families to do so. Figure 7 shows the previous tenure of the families of cohort members who moved into social housing during the cohort member's childhood. It demonstrates that for the 1946 cohort, over 80% of these moves were from private renting, possibly to a first home as newly married couples, a subsequent move into newer and more spacious accommodation, or for some of those moving from 1930 onwards, as a result of local authority clearance of the worst slum areas particularly in the big cities.

In this period, many or even most households would have prized a council letting. The vast majority of council housing was in the form of terraced and semi-detached houses with gardens, built in 'garden city' style at relatively low densities on what were then suburban sites. Many homes built in the earlier part of the period had higher design and space standards and better facilities than homes being built for sale at the same time, and certainly they

Figure 7 Previous tenure of cohort members arriving in social housing in childhood, 1952-2005



Note: In this chart, and in many subsequent ones, we show the experiences of each cohort separately, not joining the lines from cohort to cohort. Thus the first four data points represent the NSHD, the next two the NCDS and so on. Note that some people also moved in from 'other' tenures, eg renting with a business. For simplicity these have not been shown.

were better quality than ageing, shared Victorian accommodation. However, local authorities in some of the biggest cities had substantial programmes of building four and five storey blocks of flats from the 1930s, and also reduced standards under pressure to make subsidy go further in the 1930s, particularly in schemes linked to slum clearance.

As the 1946 cohort grew up, they witnessed a period of rapid development and expansion of council housing, to meet pent-up demand after the hiatus and damage of the second world war, and to address the nation's poor housing conditions – in 1951 only half the households in England had their own fixed bath, toilet, running hot water and stove. Designs, locations and condition of council homes began to vary more as the sector expanded. New development included traditional houses, mixed developments of flats and houses, and experiments with multi-storey housing and non-traditional design and materials. Homes were being built in inner-city areas, suburbs and the first new towns. By 1953, funding for local authority homes was again tightened and linked to clearance programmes, leading to somewhat reduced space standards and in many cases pressure to rebuild at high densities on tight urban sites. Activity by housing associations was very limited, and the vast majority of social

housing was provided by councils, supplemented by the new towns.

In this period access to council housing was at local authority discretion, and councillors often took a personal interest in applications. With demand exceeding supply, and many brand new high quality homes, local authorities tended to prioritise the 'deserving' and those whom they thought would be good tenants. Some asked for references or required evidence of employment (Macey and Baker, 1982; Buck, 1991; Kemp and Williams, 1991). As local stocks grew and diversified, there were often attempts to match the perceived 'quality' of tenants to that of homes. In addition, council rents were often higher than in much of the private rented sector, and were unaffordable to the poorest. From 1930 to 1945 and from 1953 onwards, central government subsidies carried requirements linking financial support to slum clearance schemes. This provided a route into particular estates, often with lower space standards, for poorer residents. Some such estates quickly gained a social stigma. From the 1950s onwards, local authorities began to set up rent rebate schemes, the predecessors of today's Housing Benefit, to help poorer households afford council rents (Malpass, 1990; Buck, 1991).



The 1958 cohort, like the 1946 group before them, grew up in a period of continued expansion of social housing. In this cohort too, a majority of families moving into social housing came from private renting (Figure 7). By the time they reached their teens, the housing system had been transformed. Four million council homes had been built since the 1946 cohort was born, making up more than half of all homes built since the war (Glendenning and Muthesias, 1994). Council housing was approaching its peak of size and diversity, and councils were building to unprecedented heights and using new materials and system-building (Burnett, 1978). Nevertheless, two thirds of the post-war homes were still, like most of the inter-war ones, houses with gardens, mostly in suburban and new town sites. Another fifth were low rise flats, mostly in inner-city areas. Multi-storey blocks made up less than ten per cent of the new homes. However, by now some of the earliest council homes were 30 or 40 years old and beginning to require refurbishment and updating, not a priority for national and local policy at the time. At the same time, the stock of private homes was also expanding – the other half of homes built since the war was intended for home ownership. Professional and managerial workers were moving out of renting on a large scale, not to return, and home ownership was coming within reach of the skilled manual

workers amongst this cohort's parents. Sociologists discovered the phenomenon of the affluent worker and the working class home owner (Goldthorpe et al, 1968; Tucker, 1966). The change between the 1946 and 1958 cohorts is clearly evident in Figure 8.

For the 1970 cohort too, there was a great diversity in the nature of council housing and what it might offer in terms of housing conditions, neighbourhood and social circumstances, relative to other local options. Local authorities continued to build homes in the 1970s, often adopting new low-rise designs in response to concerns about the developments of the 1960s. Space standards for new homes were approaching their peak (Burnett, 1978; Glendenning and Muthesias, 1994). Most local authorities with substantial pre-war stocks, now up to 50 years old and clearly below the standard of recent build and much of the private rented sector, were contemplating programmes of reinvestment (Power, 1987). Some estates connected with slum clearance continued to carry a stigma, and some newly built estates rapidly acquired one. Supported by politicians of both left and right, housing associations grew rapidly in the 1970s, initially concentrating on refurbishing Victorian homes and then moving into new building (Malpass, 2000).

Figure 8 **New tenure of cohort members leaving social housing in childhood 1952-2005**



Social housing's residents also varied very widely at this point. For the first time the cohorts could contain a substantial number of second- and third-generation council home residents, as parents of children born in 1970 were themselves born in the 1930s or 1940s when council housing was a major tenure. However, new residents were still moving

in from private renting and through slum clearance schemes in the 1970s. There was also an increase in the proportion moving in from home ownership (Figure 7), possibly some of them Right to Buy households who could not sustain their purchases through the mid 1980s, others coming via free choice or possibly family breakdown.

In addition, there were new concerns that council housing was excluding some groups in need, such as single people, homeless families and immigrants, particularly in some high demand areas (Power, 1987). In 1973, the Housing Finance Act introduced a national rent rebate scheme to replace the patchy local authority rent rebates and ensure poorer council tenants got help to pay their rents (Buck, 1991). The Homeless Persons Act, introduced when the 1970 cohort members were seven, placed a duty on local authorities to house defined groups in extreme need (Holmans, 2005). Overall, throughout the childhood of the 1970s cohort, there was a marked process of transition as higher income social tenants moved into home ownership, to be replaced by people who would not have been granted council housing or been able to afford it when the 1946 and 1958 cohorts were growing up. The 1970 cohort was also probably the first of the cohorts to be affected by a growing social perception of owner-occupation as not only an aspirational option but the normal housing tenure. Figure 8 shows a further increase in social tenants leaving for home ownership rather than private renting. When the cohort was aged ten, a new Conservative government tapped into the popularity of home ownership, giving council tenants the right to buy their homes, at substantial discounts. Combined with tight constraint on local

authorities' budgets, this meant the total number of council homes began to fall (Holmans, 2005). The Right to Buy selectively removed the more financially secure tenants and the more attractive homes from the social housing sector, although many former tenants initially stayed in the same houses, changing the tenure composition of council estates but not their social profile (Forrest and Murie, 1988).

There is a substantial gap in time between the 1970 and 2000 cohorts, and the millennium cohort is now experiencing a very different housing system to that of its predecessors. By 2004 the social housing sector had been shrinking in size for over 15 years, and residualising for more than a generation. In some places, older or more problematic council estates had succeeded the private slums of the past as the targets of some government demolition programmes. Housing associations, seen by government as more efficient builders and managers, had been recruited by government in the late 1980s to take on the role as main providers of new social housing although they have not come close to replacing council and housing association homes lost through Right to Buy (Malpass, 2000).

**Table 5 The state of social housing during the childhoods of each cohort**

Cohort born	Childhood	The state of social housing in the cohort members' childhood
1946	1946-61	Their parents most likely to be first generation in social housing Council lettings prized – a move up from private renting Most dwellings were houses with gardens and good amenities
1958	1958-74	Council housing approaching its peak Slum clearance and flatted estates, as well as the older stock Growth of working class home ownership
1970	1970-86	Council housing at its peak in early period, declining after 1981 Diverse stock. Ageing properties and quality problems RTB reduced stock from 1981. Allocations tightened to those in greatest need Home ownership becoming 'the norm'
2000	2000-	Much smaller and more tightly targeted stock Home ownership 'the norm'

These changes have affected the operation of access policies and also the characteristics of social housing and the effect it may have on life chances. The huge and selective nature of the Right to Buy, which has involved over two million homes, has had dramatic results for the nature of homes and households in social renting (Holmans, 2005). The average age of homes is increasing, and with limited investment in existing homes, their condition has worsened. By 1997 nearly half of social rented homes failed to meet government standards (HM Treasury, 2005), leading to the launch of the

Decent Homes programme, which aims to bring all homes up to a decent standard by 2010. The extreme housing need or homelessness route into social housing has become increasingly important, especially in view of falling supply. New generations coming into social housing, to replace the parents of the 1946 and 1958 cohorts and some of these cohort members themselves, increasingly enter through these routes. Figure 7 and Figure 8 also show an increased number entering from the private rented sector and far fewer tenants leaving social housing for home ownership. This is likely

to reflect both the increased disadvantage of this generation of social renting families, and the high costs of home ownership in the early 20th century<sup>6</sup>.

Figure 9 and Figure 10 demonstrate the changing size of the different tenures over this period, both as a total number of homes (Figure 9) and as a proportion (Figure 10). English data are used as UK data commences at 1971. The figures show clearly the growth of the social rented sector throughout the childhoods of the 1946 and 1958 cohort members, and for most of the childhood of the 1970s cohort. In 1981, social housing peaked at just under a third of all homes and households nationwide. It then began to reduce in size under the combined effects of the Right to Buy and the absence of new building, eventually reducing by a half. Homes rented from housing associations made up an increasing fraction of all social rented homes, and by 2007 accounted for half of the total. The figures also show the steady growth in the number of home owners throughout the period, although the growth in the proportion of households in home ownership levelled off from the 1990s. The private

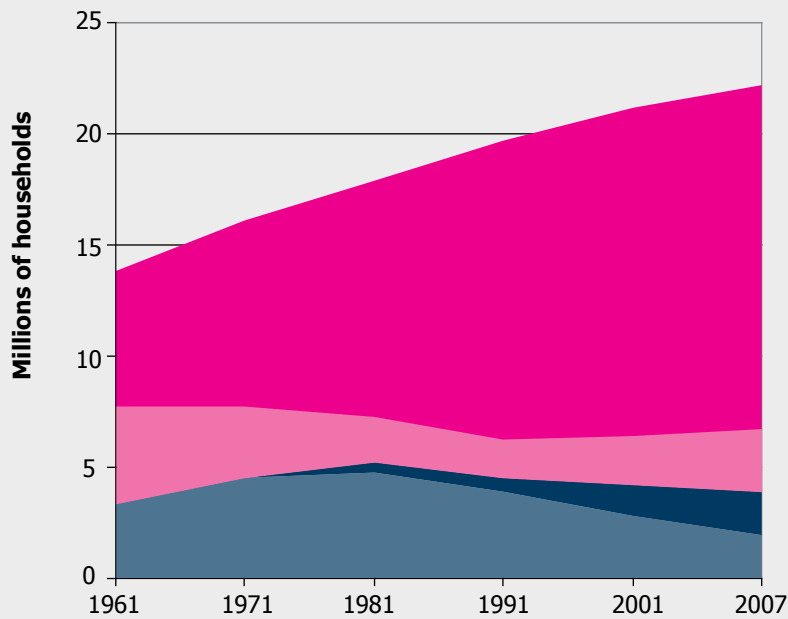
rented sector was in decline until 1991 when it grew slightly.

An important point to note in the context of current policy commitments in relation to mixed tenure communities is that the decline in the overall amount of social housing also led to a fall in the proportion of wards with high concentrations of social housing. The proportion of social renting households in these kinds of wards has fallen too. While nearly two fifths of all social renting households in 1971 lived in wards where over 60% of all households were social renters, by 2001 less than ten per cent of social renters lived in these kinds of areas<sup>7</sup>. This means that children in social renting households in the 2000 cohort are much less likely than those in the 1970 cohort to be in wards where most households are social renters, and more likely to live in areas with a mix of tenures. Since much of this reduction occurred through the Right to Buy, a corresponding analysis of social class or income mix would be needed to understand the social impact of this dramatic tenure change.

<sup>6</sup>It may also be a function of the younger age of the millennium cohort. Moves into owner-occupation tend to increase within cohorts as children age.

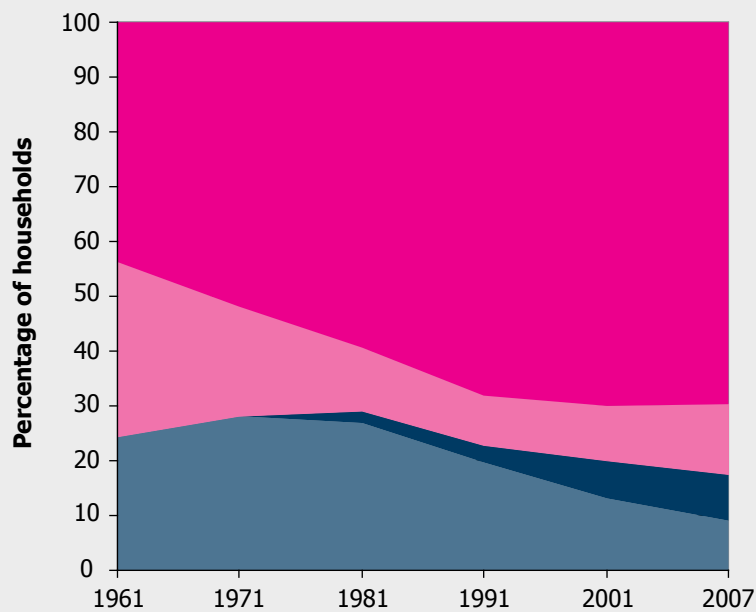
<sup>7</sup>Source: Authors' analysis of ward-level census data 1971-2001, kindly provided by Danny Dorling and John Pritchard of Sheffield University.

Figure 9 Housing tenure in England 1961-2007, number of households



Home ownership Private renting/other Housing association renting Council renting

Figure 10 Housing tenure in England 1961-2007, proportion of households



Home ownership Private renting/other Housing association renting Council renting

Source for both figures: Communities and Local Government housing live tables, Table 104: Dwelling stock by tenure, England, historical series, from census, (<http://www.communities.gov.uk/documents/housing/xls/table-104.xls> Downloaded January 2009)

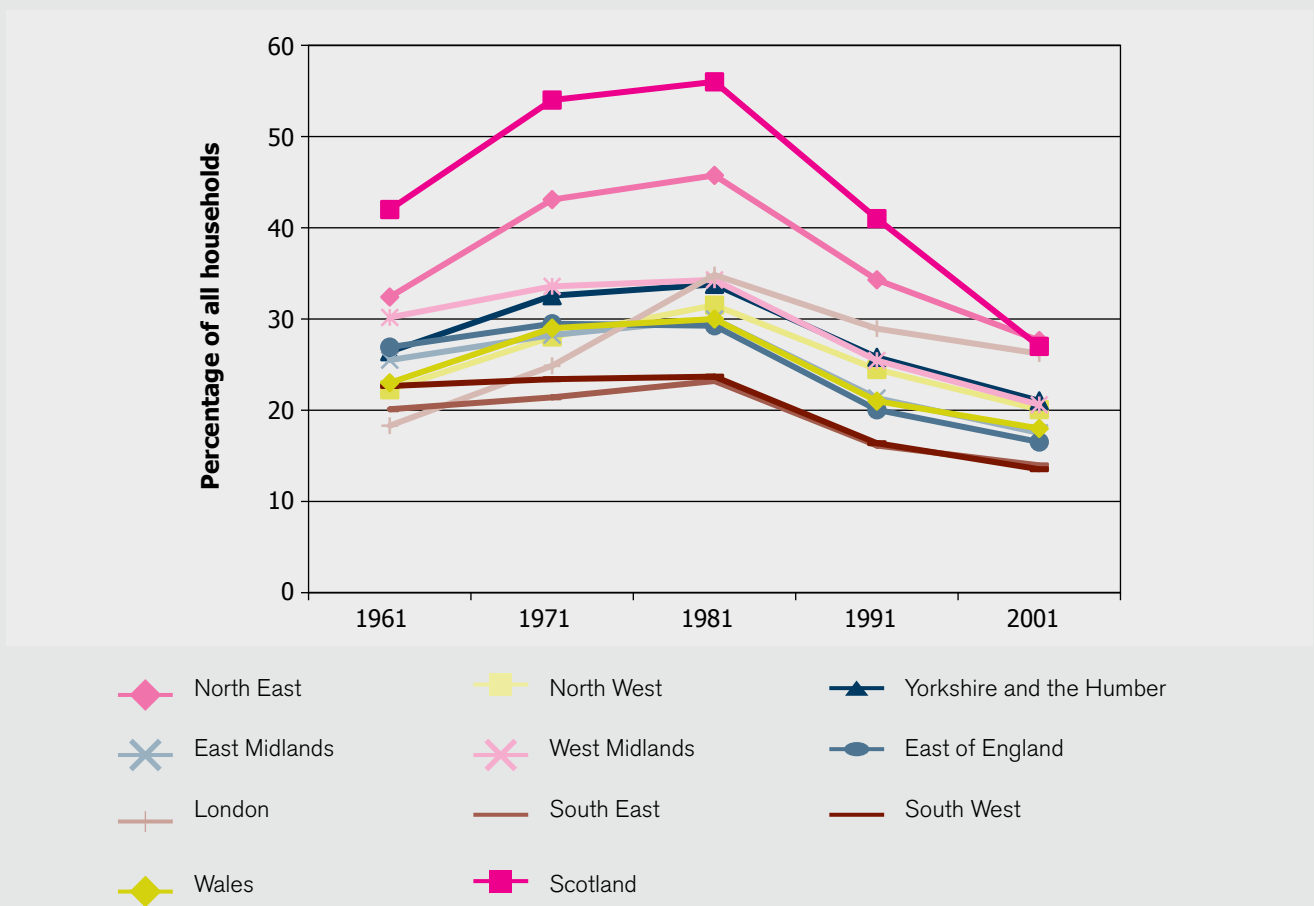
Note: Private rented includes housing association for 1961 and 1971. Social rented excludes HA for 1961 and 1971 but includes it thereafter. 'Other' includes not known for 1961 and rented with job or business for 1971-91.

These broad trends in social housing and home ownership were all experienced in England, Scotland and Wales and within the different regions of England. However, there were and are considerable differences between countries and regions in the size of the social housing sector as well as the pace and timing of changes. Figure 11 shows social housing as a proportion of all households by region. Scotland stands out. In Scotland, council building outpaced private sector building from 1945-76, and by the mid 1980s, about half the total Scottish housing stock was in council tenure. In some burghs, proportions were over 80% (Rodger, 1989). During the 1980s and 1990s, home ownership in Scotland accelerated very rapidly, although most authorities still had owner-occupation as a minority tenure. In 2001, Scotland was closest to being 'mixed' out of all regions of the UK, with 62% home ownership (National Statistics, 2001). In contrast, Wales has rather less social housing than might be expected given the industrial nature of its large cities and the Valleys. Wales had a "tradition" (IWA, 2006, p17) of early working class home ownership, perhaps because more of the Welsh working class were skilled than in some other areas. For example, home ownership rates reached 68% in Rhondda before 1981 (IWA, 2006).

For the English regions, two clear patterns emerge. Firstly, there is a very considerable gap between the low social housing regions, the South East and South West, with around 20% of households in social housing at the start of the period, and the North East, with over 30%. This gap widened during the 1960s and 1970s (comprising much of the childhoods of the 1958 and 1970 cohorts), before starting to narrow and return close to its original size by 2001.<sup>8</sup> Secondly, most English regions followed a similar pattern over time, with increases in social housing between 1961 and 1981 and decline thereafter. London is an exception, with a relatively low proportion of social housing compared to other regions up until at least 1981, and relatively high levels since then. Low early social housing development was probably due to shortage of land within the city and the relative weakness of London councils, rather than to lack of housing problems (Glendenning and Muthesias, 1994). After local government reorganization in 1965, there was a

<sup>8</sup> The North East stands out partly because it is the smallest of the regions, and thus it is easier for it to appear more specialised in housing and employment type than others. It is also dominated by a smallish number of large towns, or towns of working-class or industrial type; the only other main type of area is rural and there was little interwar or even early post-war suburbanisation, and relatively low middle class employment.

Figure 11 Households in social housing as a proportion of all households, 1961-2001, by region



Source: Census 1961-2001



rush by the new boroughs to implement plans to meet need and by 1981, some London boroughs had more than 50% local authority housing. Relatively high levels of social housing post 1981 appear to be due to lower Right to Buy sales of the capital's high proportions of flatted stock, alongside building by the large number of housing associations active in the city. For these reasons, local (ward-level) clusters of social housing have not diminished as much in London as in other areas.

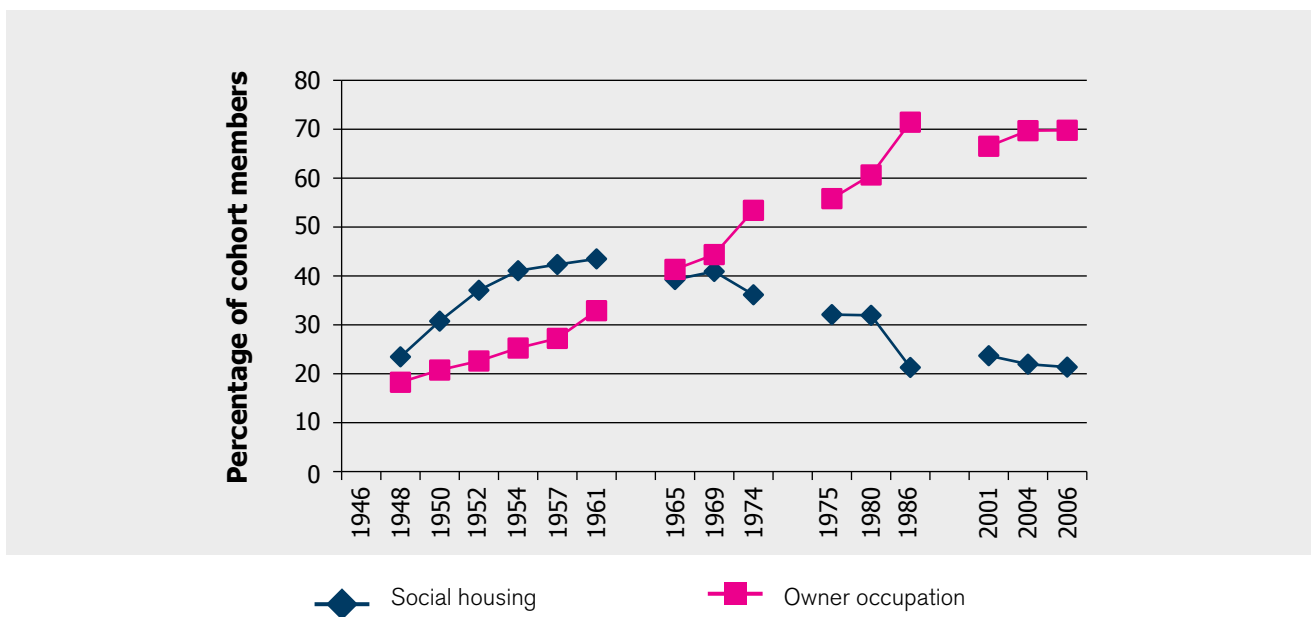
## **Social housing for families with children**

Our study focuses on families with children. Figure 12 shows the proportion of cohort members in social housing, and in home ownership, over time. It shows the tenure of the cohort members in their childhoods. For example, the tenure of the 1970 cohort is shown at ages five, ten and 16 (in 1975, 1980 and 1986). The proportion of cohort members has been consistently higher than the figures for all households, which rose from 24% in 1961 to 31% in 1981, and by 2001 had fallen as low as 19% (Figure 10). This is an important point. Throughout its history, new social housing (just like homes intended for sale) has mainly been built with the aim of housing families with children, or couples likely

to have children. The vast majority of council homes built in every era of development from the earliest days to the present have been houses (rather than flats), and most have had three or more bedrooms. In addition, families have featured prominently in policies to decide who gets priority for available social rented homes. If we are concerned about children, we need to pay attention to the life chances social housing provides for them.

However, the proportion of families in social housing has been falling since the late 1960s. During the childhood of the 1946 cohort, the proportion of cohort members in social housing increased, and it remained high when the 1958 cohort were young. A similar proportion of the 1958 cohort at age seven in 1965 (the first time their tenure is recorded) were in social housing as were the 1946 cohort at a similar age (six) in 1952. However, during the 1958 cohort's childhood some families moved out of social housing. From that point on, the proportion of cohort members in social housing then declined both within cohorts and between them. Only 21% of the millennium cohort was in social housing at age five, compared to 32% for the 1970 cohort at the same age, 39% for the 1958 cohort at age seven and 37% for the 1946 cohort at age six.

Figure 12 Proportion of cohort members in social housing and home ownership, 1948-2005



By contrast, there was a steady increase in the proportion of cohort members in home ownership, both within cohorts and between cohorts. In each successive cohort, a larger proportion of cohort members started off life in owner-occupied homes. By the time the 1958 cohort was 16, half of them were in owner-occupied homes. By the time the 1970 cohort was aged five, 55% of their parents or

guardians were home owners and at 16, 72%. The millennium cohort was born into a housing system where there had been very little growth in home ownership over the past decade, but nevertheless considerable growth since the previous generation. The home ownership level amongst the parents and guardians of millennium cohort members at nine months was 66%, rising to 69% at age five.

This was higher than the parents of 1970 cohort members had achieved by the time their children were ten.

Tenure change in the quality and desirability of housing is also very evident in the childhood experiences of the cohort members. Comparing across four cohorts, we did not have consistent measures such as dampness or indoor temperature, that have been used in some studies assessing housing quality, but we were able to look at a range of measures that have been used elsewhere in the literature to indicate both quality (the standard of the physical home) and desirability (features of the home that are typically more attractive to families).

For quality, we used the following measures:

- presence of amenities for the sole use of the household (kitchens, bathrooms, and hot water for the 1946 cohort, and indoor toilet, bathroom and hot water for the 1958 and 1970 cohort)

- 'overcrowding' (1.5 people or more per room, not including kitchens, bathrooms and halls etc; eg two parents and one child in one-bedroom place or bedsit)<sup>9</sup>

For 'desirability' we measure home type, whether house or flat. We also look at whether the home had a garden and whether the entrance was above ground level.

The data (in Figure 13 to Figure 17) show that substantial minorities of children experienced 'poor quality' housing in terms of shared or missing amenities at the start of the period, especially those in the 1946 cohort. For example, only 56% of 1946 children were in homes with a bathroom at birth and at age two years. On the other hand, the vast majority of children in all the cohorts experienced 'desirable housing' in terms of house types throughout their childhoods and throughout the late 20th century. This included living in houses rather than flats, living in homes with ground floor access, and living in homes with sole access to

<sup>9</sup> This definition of overcrowding is much tighter than the contemporary 'bedroom standard' which is now often used. We include all usable rooms not just bedrooms and do not make any judgements about who can share rooms, whereas the bedroom standard specifies the kinds of people in a household (eg single adults over 21) who should have their own bedroom. For this reason, our figures for overcrowding are much lower than in some recent reports (eg Barnes et al, 2008). We adopt the tighter standard in order to compare with the earlier period when overcrowding was more common and this was the typical measure.

amenities. Despite – or, latterly, perhaps because of – widespread concern about the building type, particularly as family housing, very small proportions and numbers of children experienced living in multi-storey blocks.

Families with children were less likely than other household types to live in poor quality or less desirable housing. This was true for almost all measures of housing quality and desirability at almost all times: home type, ground or low floor access, access to a garden, overcrowding, and amenities including access to a kitchen, running water, hot water and bathrooms. This suggests that the housing system, including the social housing allocation system, was performing well. The only exception was overcrowding. Families with children, necessarily multi-member and often large households, are likely to be particularly susceptible to this.

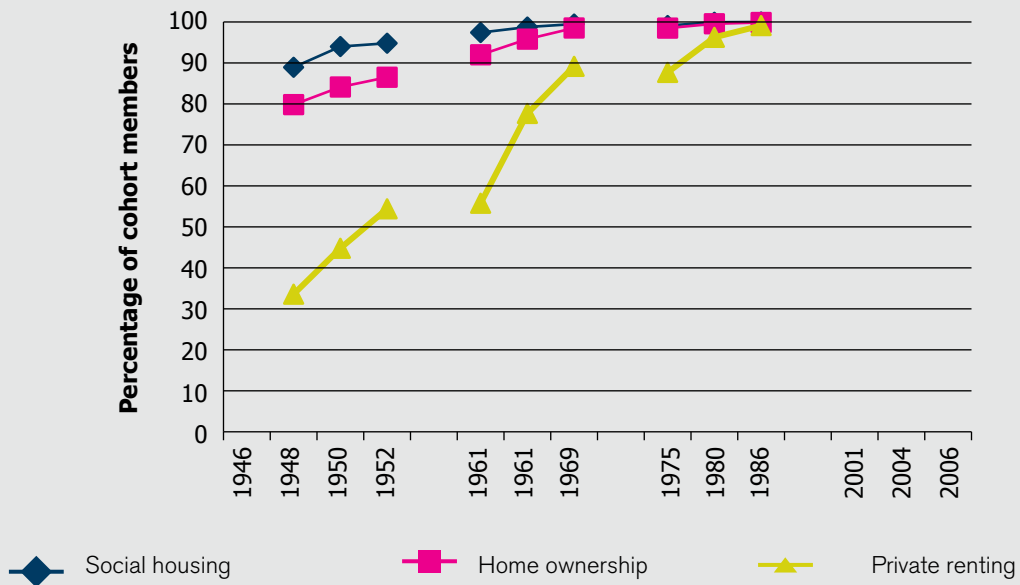
Within each cohort, through their childhoods, the quality of housing children experienced improved over time. It is pleasing to see that in each generation, the proportion of children experiencing overcrowding reduced as they grew up, even though in many cases they would have been joined by younger siblings. Again, this suggests the housing system was allowing parents to better their families'

conditions. These improvements could be explained by changes in the children's household (eg size, whether sharing between hidden households), changes to their homes (eg poor quality homes being converted or altered) or by moves between homes and/or tenures.

However, the most dramatic finding is the sharp improvements in housing quality and desirability between the generations. There were improvements between cohorts on almost all variables. The changes were particularly dramatic between the 1946 and 1958 cohorts, when for example, the proportion with access to a bathroom jumped from 76% to 97% at age 11.

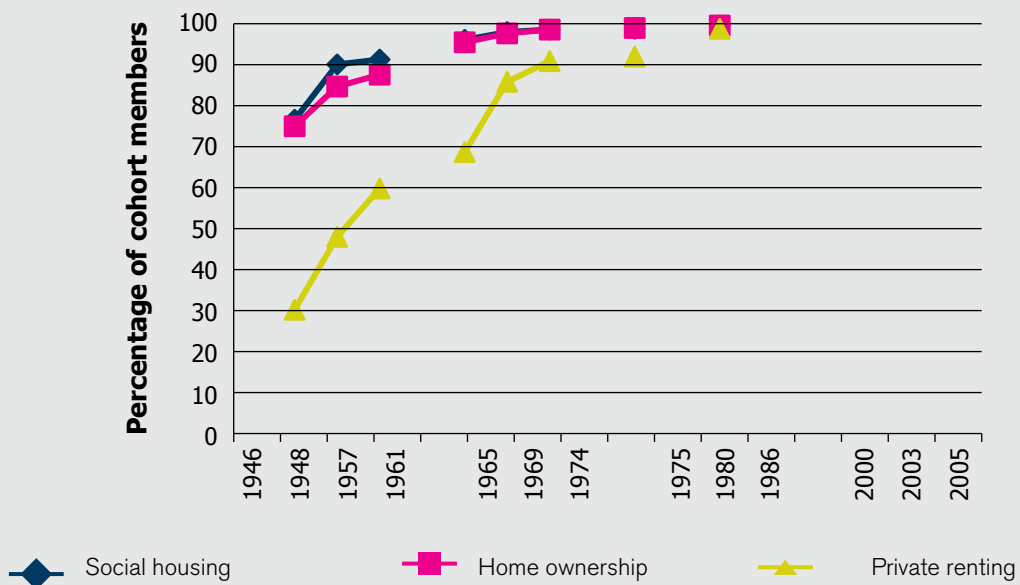
Overcrowding was the one exception to improvement between generations, with higher proportions of children in the 1958 cohort experiencing overcrowding than the 1946 cohort. This is likely to be related to the post-war baby boom. When the 1946 cohort members were born, they joined an average 1.46 siblings already in the family. The figures for 1970 were 1.48 and for 2000 1.11. However, when the 1958 cohort were born, they joined an average of 2.74. This indicates the limits of the housing system to respond rapidly to increased average family size.

Figure 13 Percentage of cohort members living in a home with a bathroom, by tenure



Note: This data not collected for the millennium cohort

Figure 14 Percentage of cohort members living in a home with running hot water, by tenure



Note: This data not collected for the millennium cohort

Figure 15 Percentage of cohort members living in houses (rather than flats), by tenure

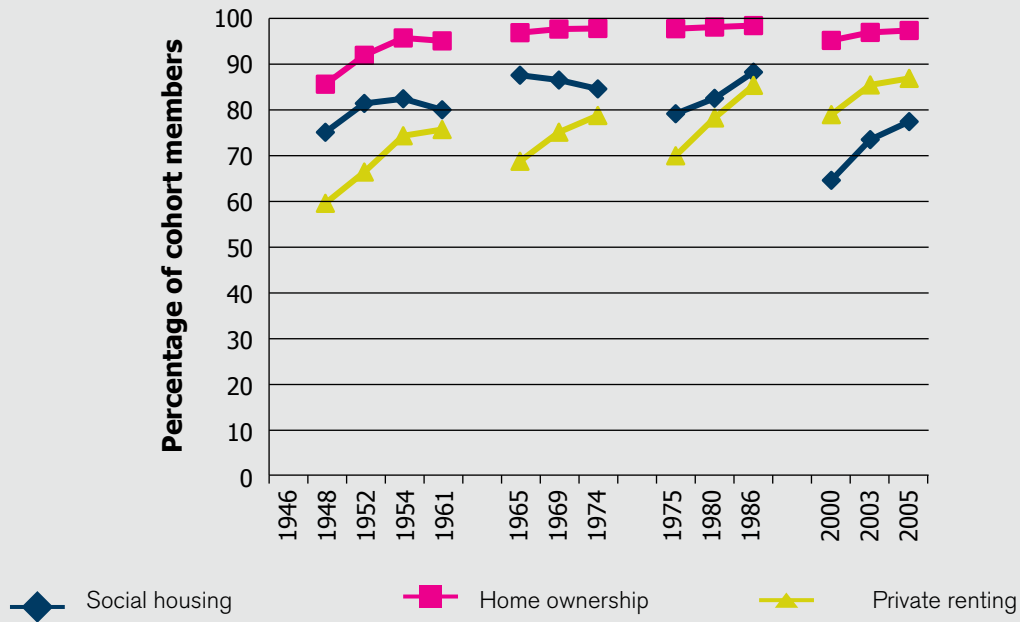


Figure 16 Percentage of cohort members overcrowded, by tenure

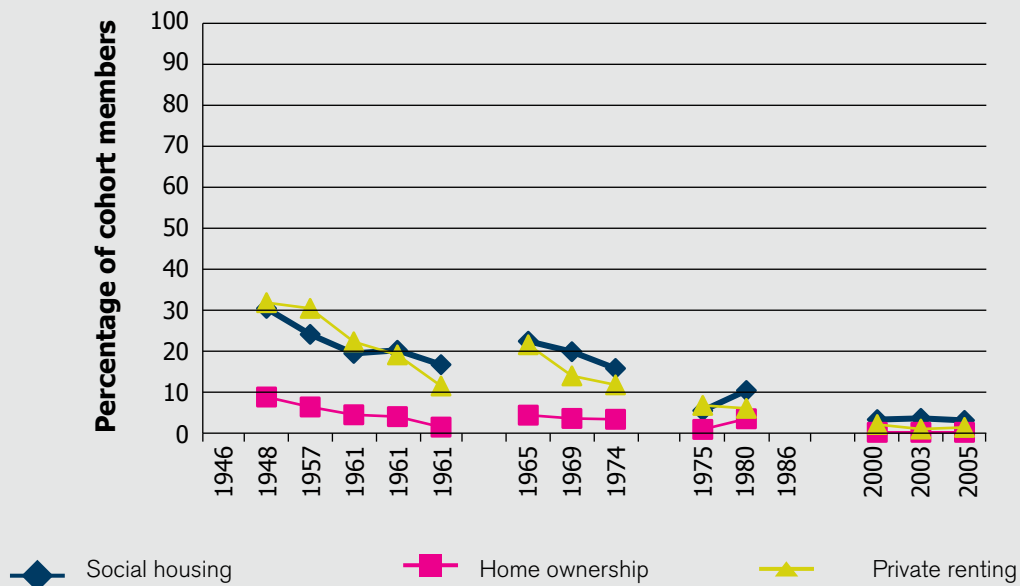
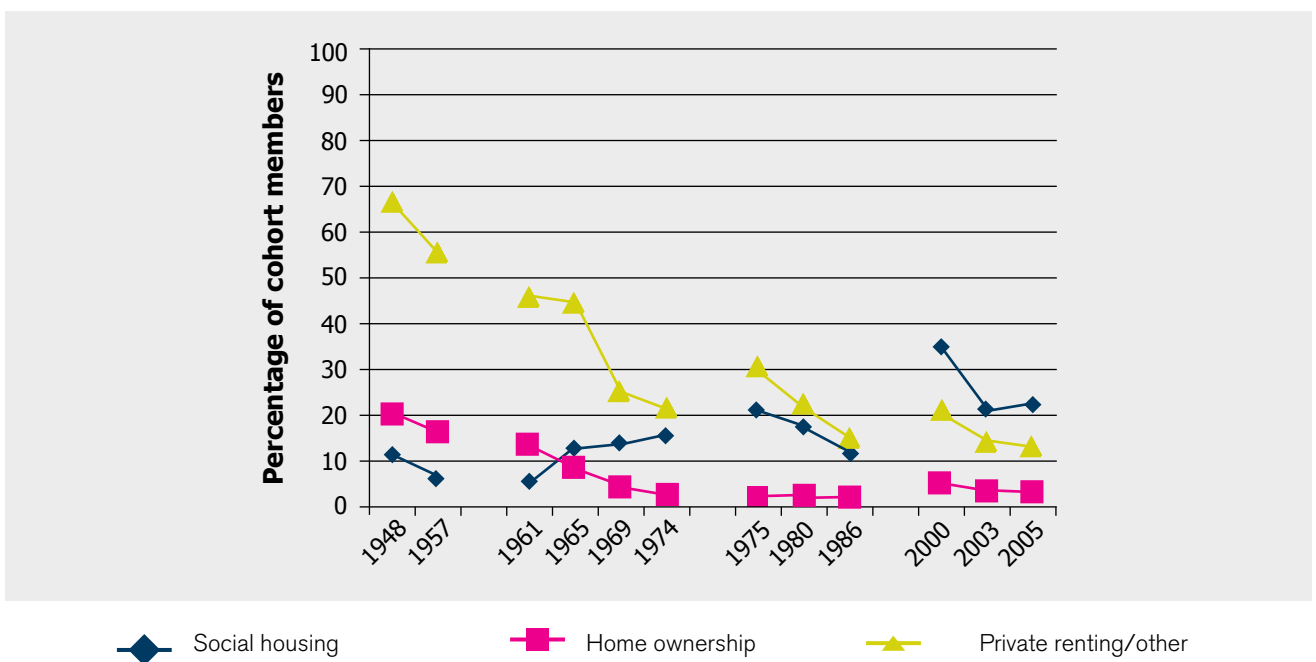


Figure 17 **Minimum percentage of cohort members experiencing at least one quality or desirability problem, by cohort member's tenure (synthesis of data across cohorts)**



There were – and remain – substantial differences in the prevalence of housing quality and desirability between tenures. For the 1946 and 1958 cohorts, the greatest concentration of children in better quality and more desirable housing was generally in

the social rented sector and in home ownership. The greatest concentration of children in poorer housing was still in the private rented sector, except that the development of purpose built flats for social housing meant that the highest concentration of children in homes reached above ground floor was in social

housing. By the 1970 cohort, home ownership had the greatest concentration of children in better quality and more desirable housing on every measure. Social housing now had the highest proportions of children in households disadvantaged by less desirable building types (although the total number was small), while the private rented sector had the highest proportions disadvantaged by lack of amenities. Home ownership dominated the quality measures.

Figure 17 summarises the transformations in the relative quality and desirability of housing offered to families by the three main tenures over the cohorts. In short, social housing fell from second on the housing quality and desirability ladder (by the measures we have), with first place on amenities, to third place, swapping places with the private rented sector at the bottom of the scale. The increasing proportions of children in social housing who were in flats (the less desirable building type) accounts for social housing overtaking private renting in the 1980s.

## Greater targeting of social housing towards the disadvantaged

The changes we have described so far in this chapter in the size of the different tenures, the role of social housing and changing allocations policies, and its changing absolute and relative quality, led inevitably to changes in the characteristics of its tenants. So too did the broader social and economic processes that we described in Chapter 1. We document this process by comparing the characteristics of the parents of the members of each cohort<sup>10</sup>.

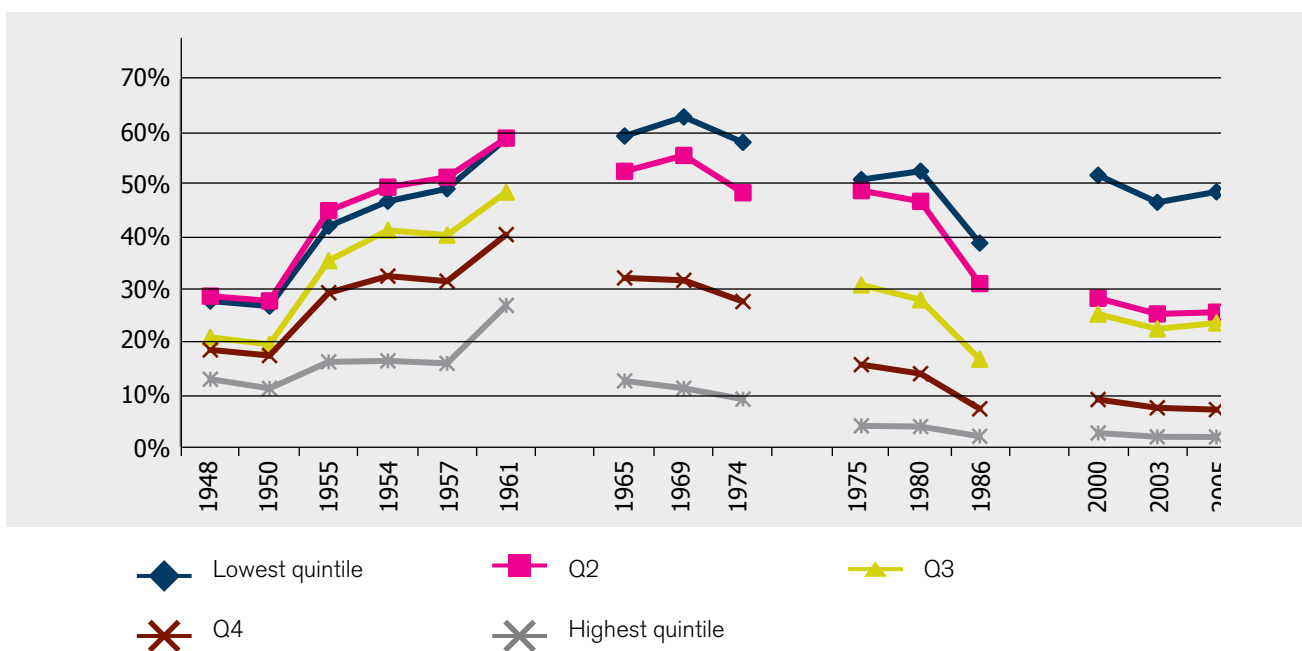
We look first at the social class composition of social housing, using an 'index of advantage': a combined measure of mother's and father's education and father's occupational status, at the time of the birth of the cohort member<sup>11</sup>. This is effectively a measure of social class and we occasionally use the term class to refer to our findings.

<sup>10</sup> A particular value of this approach is that it compares people at the same stage in the life course. Snapshots of the social housing sector as a whole are problematic because the demographic profile of the sector at any one time affects overall figures.

<sup>11</sup> Cohort members born to lone mothers are missing information for the father. For the 1946, 1958 and 1970 cohorts, these are very small numbers and they are omitted from the index. For the 2000 cohort, they are substantial numbers. We calculate the index by attributing a father's education score equivalent to that of the mother.



Figure 18 Proportion of cohort members in social housing, by quintiles of index of advantage



Note: For the 1958 cohort, 39% of the population have the same score on this index, so we have four not five groups.

The overall picture is a progressive residualisation of social housing, from one cohort to the next (Figure 18). In this chart, the highest quintile is the most advantaged fifth of the population on this measure, the fourth quintile the next most advantaged group, and so on. In each successive generation, another

fifth of families is seen to leave social housing. In the 1946 cohort, nearly one-sixth (15%) of the most advantaged families were in social housing, falling to ten per cent for the 1958 cohort and under five per cent for the remaining cohorts. Thus after the 1946 cohort, this group hardly features in

**Table 6 Percentage of cohort members in social housing, at ages four to seven**

	NSHD (1946)	NCDS (1958)	BCS (1970)	MCS (2000)
	Age 4: 1950	Age 7: 1965	Age 5: 1975	Age 5: 2005
Least advantaged quintile of population	27	59	51	49
2nd quintile	28	52	49	26
3rd quintile	19	32	31	24
4th quintile	17	12	16	7
Most advantaged quintile of population	11	4	2	2

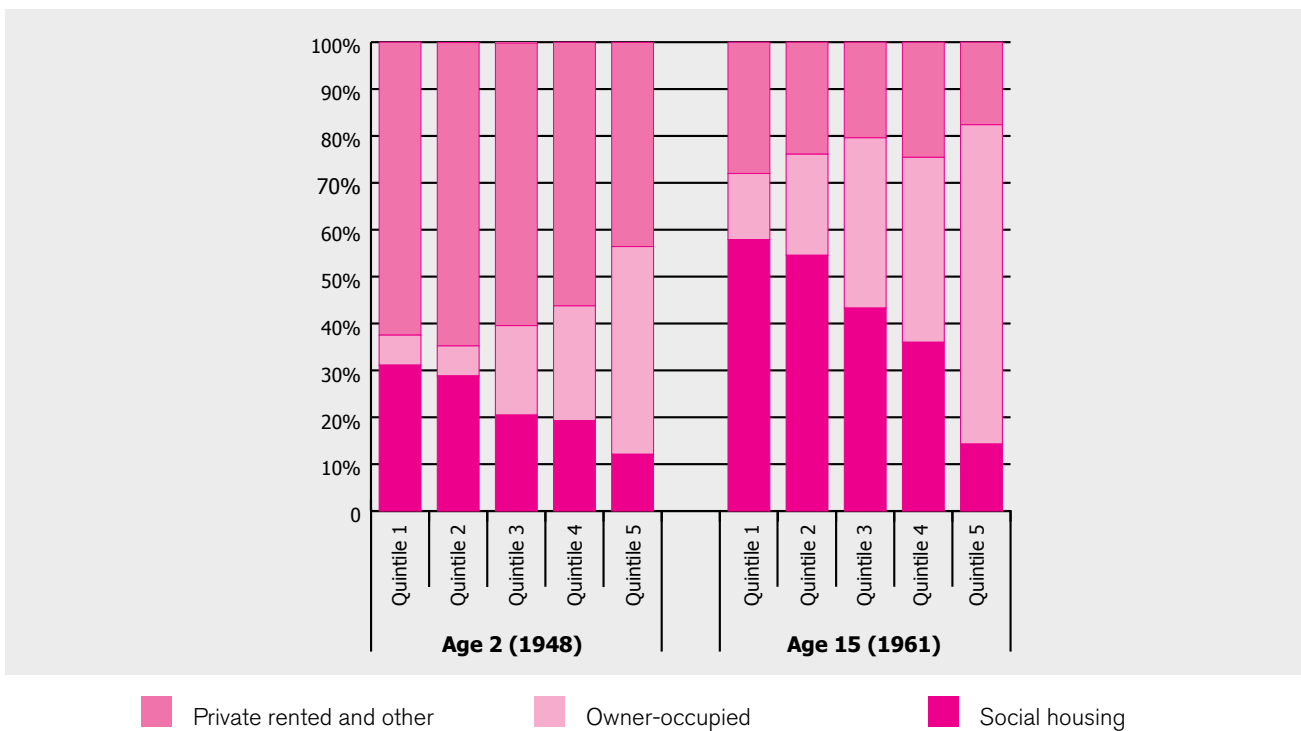
social housing. A similar path is followed by the next most advantaged quintile, one cohort later. For the 1970 cohort, the two least advantaged groups are still similarly represented in social housing, but by the time of the 2000 cohort, the second quintile has also left, leaving a substantial gap between the least advantaged fifth and the rest. This is demonstrated very clearly if we just compare children of a similar age – the 1946 cohort at age four, the 1958 cohort at age seven, the 1970 and 2000 cohorts at age five (Table 6).

A consequence of this trend, combined with the overall growth and then decline of social housing, is that it actually housed more of the most disadvantaged families in 2005 than it did

at the start of the period in 1948, but less than at any other time since 1955 (Figure 18). Over the last 50 years, the sector has played a receding role even for the most disadvantaged families. An important question for policy, although not one we can answer in this report, is whether more families in this segment of society could benefit from social housing or whether this trend represents dwindling proportions in need of or aspiring to this provision.

Analysis of all tenures, not just social housing, gives a more nuanced picture of early tenure changes. Figure 19 shows how the decline in private renting and growth of social housing and owner-occupation during the childhood of the 1946 cohort were demarcated by social class. For

Figure 19 Tenure change by social class, 1946 cohort



the most advantaged quintile (Quintile 5) almost all the decline in private renting was taken up by owner-occupation. The other 80% of families all moved into social housing in significant numbers, as well as increasing their proportion of owner-occupation. Indeed for all of these groups, more of the decline of private renting was taken up by social housing than it was by owner-occupation (27% compared to eight per cent for the least advantaged

group, 26% compared to 15% for the next, 23% compared to 17% for the next and 17% compared to 15% for the next). The more advantaged the group the greater the shift into owner-occupation. Nevertheless even amongst the least advantaged families, the proportion in owner-occupied homes increased from six per cent to 14% over this 14-year period.

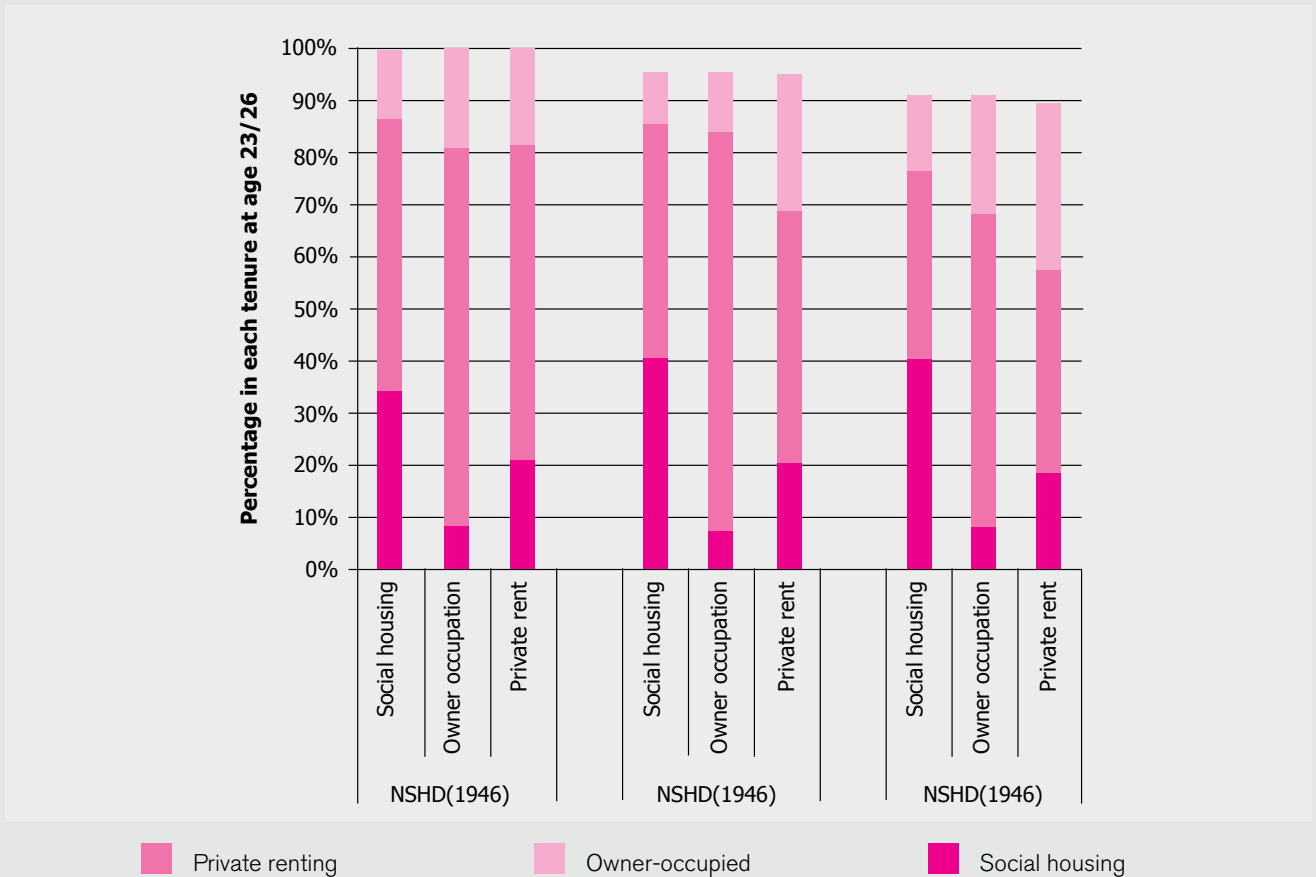
For the 1958 and 1970 cohorts, all quintile groups saw similar shifts from private renting to owner-occupation, with the proportion in social housing declining slightly. However, this conceals what was a more dynamic picture of change for individual families, with people moving into social housing from private renting and out of social housing into owner-occupation. By the end of the childhood of the 1970 cohort, the two most advantaged quintiles were hardly in social housing. The remaining groups saw considerable movement out of the sector.

Analysis of the young adult tenure of these three earlier cohorts provides evidence of a divide starting to open up between the experiences of social housing tenants and others (Figure 20). Very few people (only around ten per cent) in any of the cohorts who were in owner-occupied housing at age 15-16 moved into social housing by 23-26. This proportion decreased only marginally over time, while the likelihood of owner-occupiers moving into private renting rather than owner-occupation decreased between the 1946 and 1958 cohorts but increased again for the 1970 cohort. Two-fifths of social tenants at 15-16 in the 1958 and 1970 cohorts, rising from about one third in the 1946 cohort, remained in social housing at 23-26. Their likelihood of going into owner-occupation decreased after the 1946 cohort (who were in

their early 20s in the late 1960s). Thus the tenure trajectories of owner-occupiers and social housing tenants diverged slightly. These are not dramatic trends, but indicate marginal shifts. Private renters at age 15-16 became substantially less likely to enter owner-occupation over time and more likely to remain in the private rented sector.

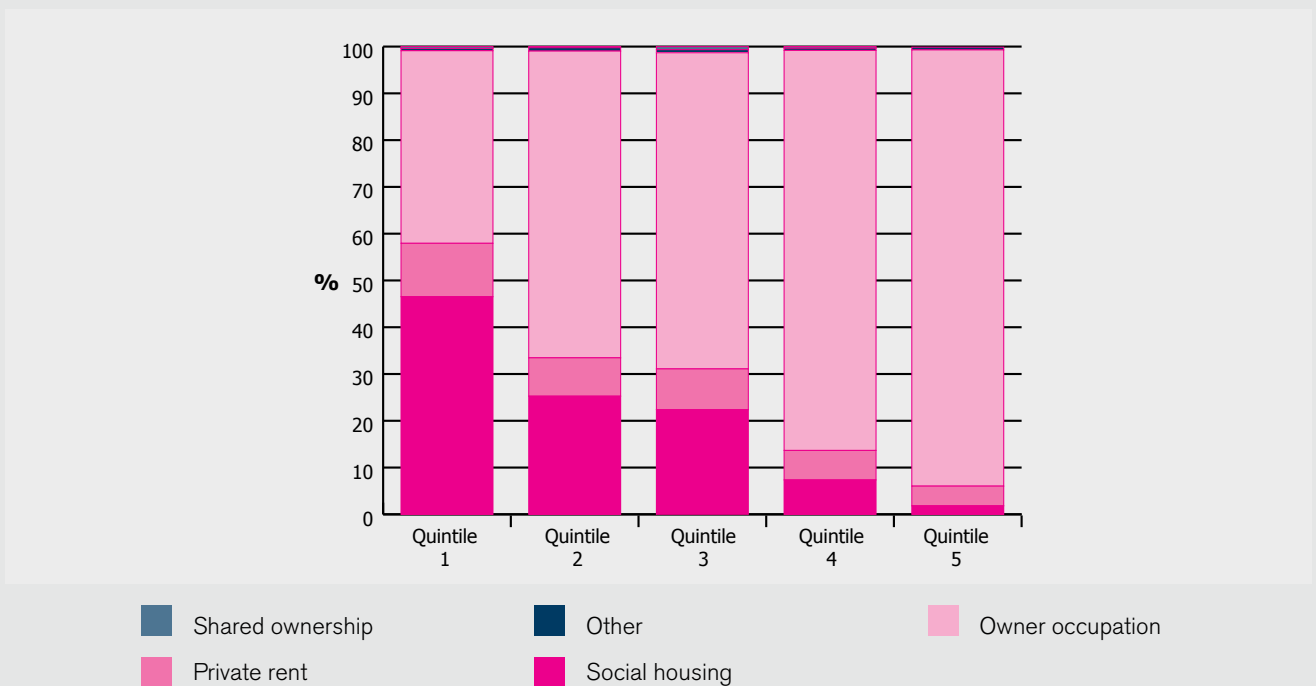
A marked change is evident by the time of the millennium cohort. Although we cannot compare this cohort across childhood in the same way (as they are not yet old enough), the difference in circumstances is evident even from the early sweeps. By 2005, the most recent observation for this cohort, a very limited proportion of families with children this age was in the private rented sector (eight per cent) and 71% were owner-occupiers. Overall, 20% were in social housing. Class demarcations were very strong. All of the top four groups on the index of advantage were now predominantly owner-occupiers, ranging from 93% owner-occupation for the top group to 65% for the second most disadvantaged group. In the most disadvantaged group, 41% were owner-occupiers. This represents astonishing growth from the eight per cent of children of similar age and social group in 1952, but nonetheless also an opening up of the gap between the most disadvantaged group and others. With the private rented sector making

Figure 20 Tenure at age 23-26 by tenure at age 15-16



Notes: Tenure is measured at 15 and 23 in NSHD, 16 and 23 in NCDS and 16 and 26 in BCS. Tenure at 23-26 may be the parents' tenure or the cohort member's independent tenure. 'Other tenures' are combined with private renting for NSHD but not for the later cohorts, which is why they do not sum to 100%.

Figure 21 Tenure at age five in the millennium cohort, by index of advantage



little contribution, this polarisation is witnessed in the class composition of the social rented sector too. About 49% of five-year-olds in the most disadvantaged quintile of the MCS were in social housing, compared to 26% for the next group, and two per cent for the most advantaged (Figure 21, see also Table 6). The sector had changed, as Donnison and Ungerson (1982) put it, from catering for the “neat and tidy” in the post-war generation, to providing for the “tight and needy” by the turn of the century.

These trends are summarised in Figure 22, which compares children of similar ages (the 1946 cohort at age four, the 1958 cohort at age seven, the 1970 and 2000 cohorts at age five). Private renting, though changing in size, has changed relatively little in its social class composition – a varied sector which has continued to cater for both top and bottom groups while becoming slightly more advantaged overall. The privileged hold of the most advantaged social group on owner-occupation has been dramatically eroded, such that they now make up only about a quarter of families in that tenure, compared to nearly half in 1950. All social groups have shared in this expansion of owner-occupation, but not equally. The least advantaged group still make up only 11% of owner-occupiers, a rise from eight per cent over 55 years. Conversely, this group

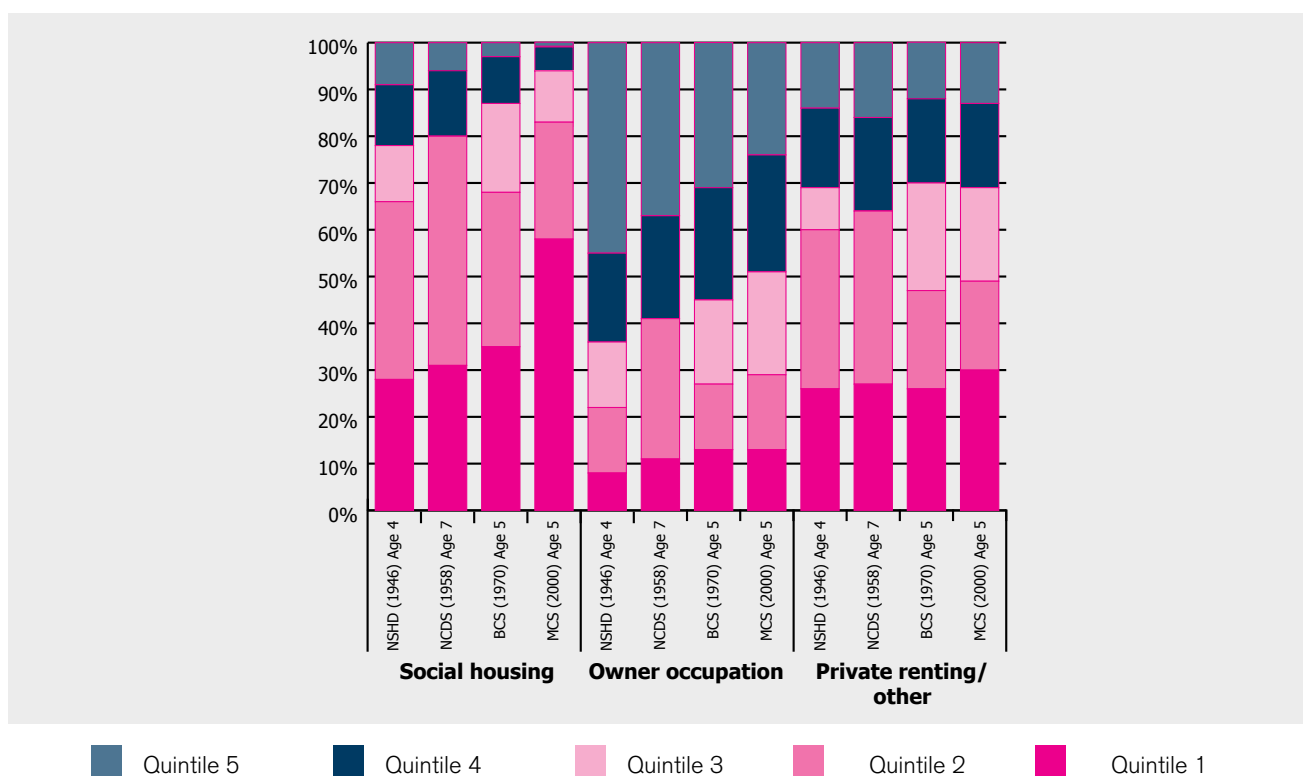
has increasingly dominated social housing, with a steady increase over the first three cohorts, and a big jump between 1975 and 2005, from being 35% of all families in social housing to 44%. The two most advantaged groups, once 22% of social housing tenants, now make up barely ten per cent between them.

The cohort study data also provides the opportunity for closer analysis of the characteristics of families in different tenures. The possibilities for tenure-based analysis are great and we have not exploited them all. A very clear story emerges, however, from the evidence we have examined: the increasing relative disadvantage of mothers in social housing over time, and particularly between the millennium cohort and others.

Measures of educational attainment have varied over time as the education system has changed. We concentrate for simplicity on the proportion of the cohort members' mothers achieving no more qualifications than could be gained at the end of compulsory schooling<sup>12</sup>. Although the measures

<sup>12</sup> This is measured as follows: for NSHD the highest qualification being “primary+technical secondary”, for NCDS “leaving education at school leaving age”, and for BCS and MCS the highest qualification being either “none” or “O'-level or equivalent”.

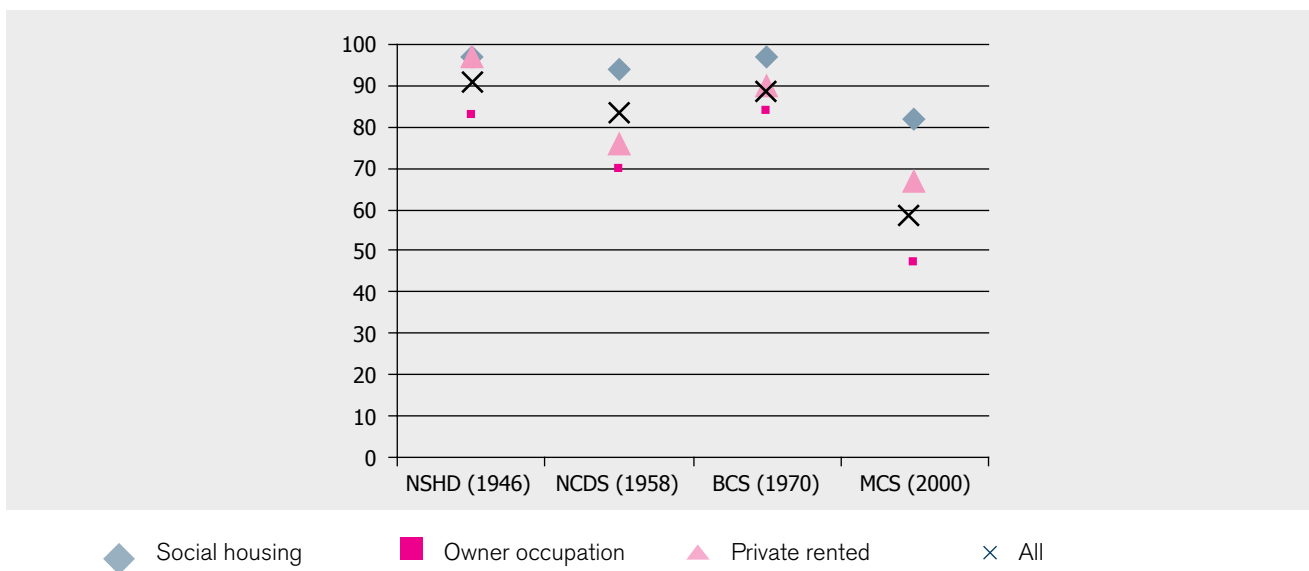
Figure 22 **Change in the social class composition of each tenure 1950-2005 (comparing children at ages four to seven)**



are not entirely comparable across cohorts, we can see that overall there has been a large decrease (from 93% to 59%) in the proportion having the lowest level of qualification, as access to education has improved. The main period of advancement has been between the mothers of the 1970 cohort (who would probably have been educated in the 1950s

and 1960s) and the mothers of the millennium cohort who were at school in the 1980s and 1990s (Figure 23). However, these falling rates of low qualifications are mainly accounted for by owner-occupiers (from 82% for NSHD to 47% for MCS). The comparable figures for social housing tenants are 97% to 82%, opening up the gap between the

Figure 23 Percentage of mothers with lowest levels of qualifications, by tenure



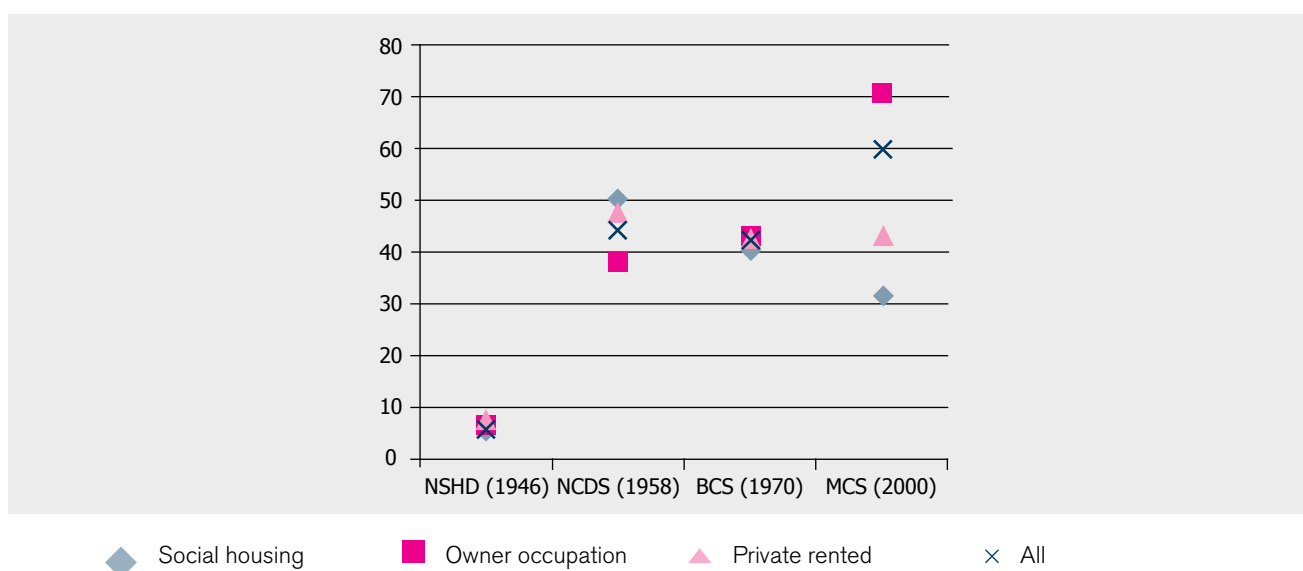
tenures from 14 percentage points for the NSHD to 35 percentage points for the MCS. Twenty-six per cent of MCS social housing mothers had no qualifications at all, compared to five per cent of owner-occupier mothers, and 15% of private renters.

At the same time, there has been a sharp divergence of mothers' labour market participation by tenure (Figure 24). The data we present below for each cohort are not entirely comparable: the

NSHD considers mother's employment status when the cohort member was two; NCDS asks (at age seven) whether the mother worked when the child was 'pre-school'; for BCS and MCS the question relates to employment when the child was five. However, the tenure trends are clear. Until the 1970 cohort, similar proportions of mothers in all tenures were working. Between 1970 and 2000 the proportion of working mothers rose overall from 42% to 60%. However, this rise was accounted for by the substantially increased participation of



Figure 24 Percentage of mothers working, by tenure



mothers in owner-occupation. For mothers living in social housing, the rate of participation actually declined, from 40% to 32%, opening up a gap of nearly 40 percentage points between the two tenures.

One factor associated with this economic shift has been the rise in the proportion of lone mothers in social housing. Even up until 1970 (BCS cohort), the proportion of cohort members born to a lone mother was very small (4.8% for the BCS, compared to three per cent for the NCDS)<sup>13</sup>.

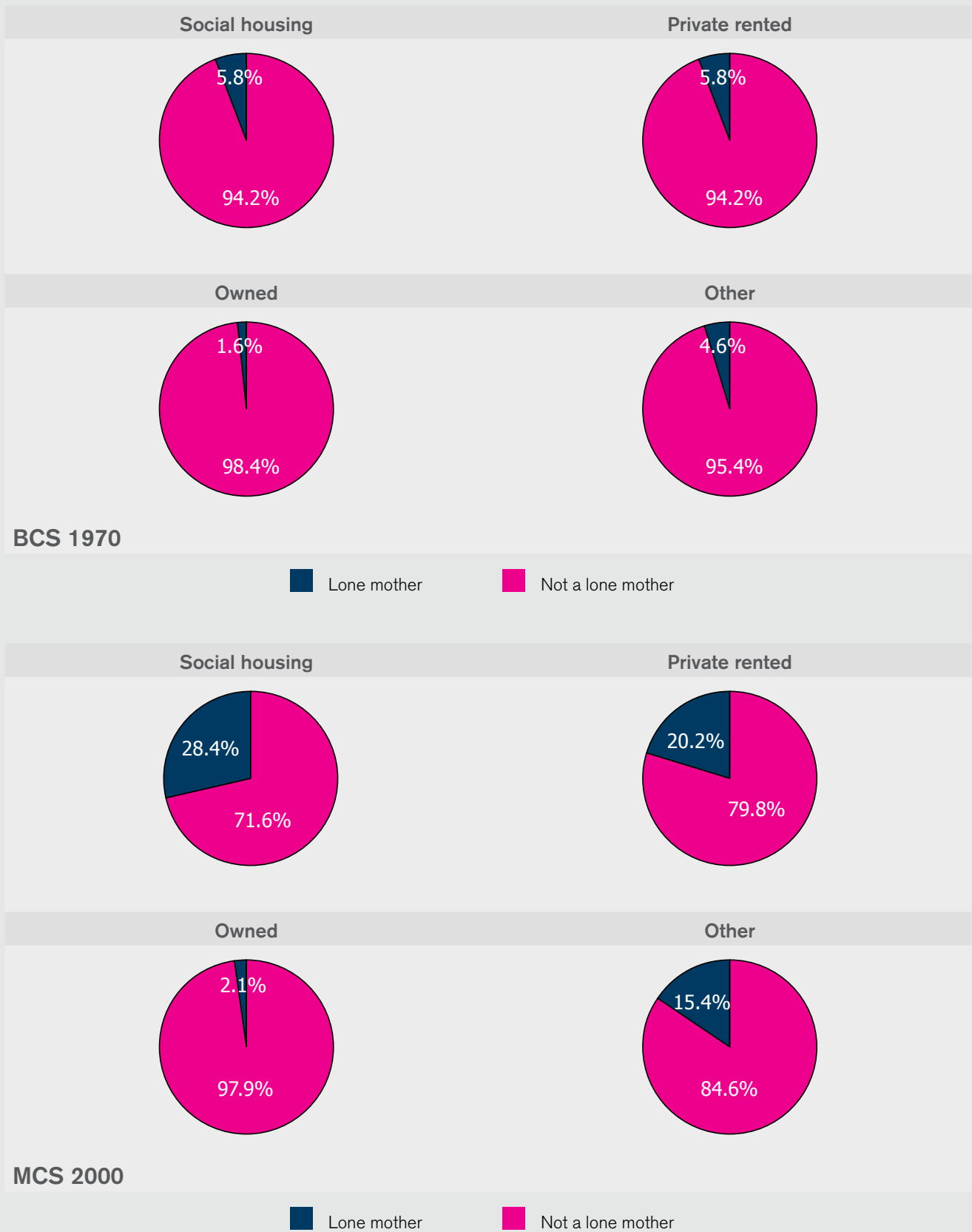
<sup>13</sup> NSHD only sampled children born to married mothers.

Moreover, there was little variation by tenure. This data relates to the circumstances at birth – more children will have experienced some of their childhood being brought up by a lone mother (or father) as a result of later relationship breakdown. For the MCS in 2000, 11% of children were born to lone mothers and a very large tenure gap had opened up. Rates of lone motherhood in private renting were high relative to owner-occupation, but particularly high in social housing (Figure 25).

Over the same period we also see a tenure divergence in the proportion of mothers smoking.

Figure 25

Percentage of cohort members born to a lone mother 1970 and 2000, by tenure



Smoking among mothers reduced substantially overall, from 41% to 28%, but this was almost entirely due to a change in the behaviour of owner-occupied mothers, from 31% in the BCS to 17% in the MCS. The proportion of smokers in the private rented sector and in social housing barely changed, with around half of mothers smoking, three times as many as in owner-occupation (53% in social housing and 45% in private renting in 2000). Again these changes have happened since 1970. They will not be reflected in any of the adult outcomes we report in later chapters, but warn of a potentially much bigger tenure divide among today's children as they move into adulthood than for any previous post-war generation.

# Chapter 3

## Relationships between social housing in childhood and adult outcomes

### Chapter summary

- We tracked cohort members into adulthood and traced how they fared in five areas: health and health-related behaviours, well-being, education, employment, and income
- For each generation and every measure we used, those who had ever been in social housing in childhood fared worse as adults than those who had not
- To investigate whether this was simply due to the fact that social housing is provided to people who are disadvantaged, we introduced a formidable barrage of controls. These included characteristics of cohort members families and their own early behaviour and progress, which many other studies have found to be correlated with the sorts of adult outcomes we are looking at here
- For those born in 1946, when we apply these controls to the differences between the adult outcomes of those ever and never in social housing in childhood, most of the associations are no longer statistically significant
- For the 1958 and 1970 cohorts, statistically significant negative associations between social housing in childhood and adult outcomes remain after controls in every area (health, well-being, education, employment and income), although not for every indicator, and not at every age
- The associations are stronger for the 1970 cohort than the 1958, and stronger for women than men in the health and well-being domains
- We did not find any situations where the 'ever' group had more positive scores than their counterparts. Thus there is no evidence of social housing appearing to counteract earlier disadvantage with positive, 'value added' effects on adult outcomes
- Testing these results using an index of parental advantage (a social class measure), we found that that for most variables at most ages, the level of parental advantage made little difference to the size of the association between social housing in childhood and adult outcomes
- We also looked at regional differences. Regions of the UK have different proportions of housing in different tenures, and also different patterns of adult outcomes. However, we found little to suggest any difference between regions in the relationship between childhood social housing and adult outcomes
- These results do not prove that social housing causes later outcomes. They demonstrate evidence of a link that is not explained away by many of the other factors that are typically influential

## Childhood social housing and continuing disadvantage

Thus far we have demonstrated that the nature of social housing was different for each of our three generations and so too was the composition of the social housing sector, with each generation of social housing tenants more disadvantaged than the last. We now examine whether this picture of growing disadvantage for children growing up in social housing was reflected in worse outcomes later in life, and the extent to which social housing itself may have played a role.

We identify whether each cohort member was ever in social housing as a child, observed at ages four, six, eight, 11 and 15 for the 1946 cohort, ages seven, 11 and 16 for the 1958 cohort and ages five, ten and 16 for the 1970 cohort<sup>14</sup>. We compare those who were ever in social housing

with those who were never in social housing, in childhood<sup>15</sup>. It is important to note that in contrast to much of the other evidence on this topic, we are not looking here at the relationship between adult tenure and disadvantage, but whether growing up in social housing is related to later outcomes. Tracing housing trajectories into adulthood and exploring their association with adult outcomes would be another valuable piece of work.

Looking at the 1946, 1958 and 1970 cohorts, and at the five domains of adult life described in Chapter 1, we find that for all three cohorts, for every measure and at every age excepting for obesity at age 31 in the NSHD, average outcomes for the 'ever' group were worse than for the 'never' group. This is stark evidence that any disadvantage experienced on entering social housing as a child is continued into adulthood.

<sup>14</sup> Attrition (permanent exits from the sample) and non-response appear to be non-random in both data sets. Restricting the sample to those cohort members with complete information could lead to substantial bias in our parameter estimates. We address non-response by setting missing values to their sample mean, however, we do not attempt to correct attrition bias. Because the data suggest that more disadvantaged people disappear from the survey sample, any results suggesting that individuals who lived in social housing during childhood fare worse are likely to be a conservative estimate of the true differences between groups. In addition, we allow for some missing information in the construction of our measures of tenure.

<sup>15</sup> We construct a measure of ever having lived in social housing as long as cohort members have information in at least two childhood waves, and the measure is based entirely on the information provided at those two waves. Our approach to coding housing trajectories (see the next chapter) was similar. We coded missing tenures as social housing if the cohort member lived in social housing for the two observed periods. Similarly, we assumed the cohort member was not living in social housing if they did not live in social housing for the observed two periods.

**Table 7 Mean of outcome variables at age 33-34 for cohort members ever in social housing in childhood, compared to never**

	NSHD Age 31 (1977)			NCDS Age 33 (1981)			BCS Age 34 (2004)		
	Ever	Never	Gap	Ever	Never	Gap	Ever	Never	Gap
Self-rated health				3.11	3.27	0.16	2.92	3.13	0.21
Malaise score				2.81	2.11	-0.70	1.88	1.56	-0.32
Depression				0.09	0.05	-0.04	0.19	0.13	-0.06
Cigarettes smoked/day	12.84	10.32	-2.52	6.86	4.19	-2.67	5.50	2.99	-2.51
Obesity	0.05	0.06	0.01	0.13	0.10	-0.04			
Exercise				0.76	0.80	0.04	0.76	0.81	0.05
Low self-efficacy				0.53	0.34	-0.19	0.41	0.24	-0.17
Life satisfaction				7.37	7.52	0.15	7.23	7.52	0.29
Paid Employment	0.72	0.73	0.01	0.76	0.82	0.06	0.79	0.86	0.07
Means-tested benefits				0.16	0.08	-0.08	0.13	0.05	-0.08
Highest qualifications							1.89	2.70	0.81
Literacy/numeracy problem				0.14	0.09	-0.04	0.20	0.13	-0.07

Note: Refer to Table 4 in Chapter 1 for information about how each outcome was measured. Some of the data in this table are percentage points. Others are points on a scale. Blank spaces indicate that a particular outcome was not measured or not comparable at that age.

For some measures (such as cigarette smoking and benefit receipt), the size of the difference remained similar from one cohort to the next. For others (such as self-rated health) it grew wider. The employment gap at age 31 in NSHD (1946 cohort) was very small at one per cent, but significantly larger for both subsequent cohorts, probably reflecting industrial decline as well as tenure polarisation. For some measures (malaise and low self-efficacy), the

gap got smaller between the NCDS and BCS. Table 7 shows the pattern for each cohort in their early 30s.

These results are powerful in themselves. However, they do not show that social housing is a cause of the gap in outcomes. The data merely underline the increasing need for other areas of social policy to recognise the multiple and complex disadvantages

faced by current generations of adults who grew up in social housing and perhaps more importantly the trajectories that can develop for children whose families are currently being allocated into social housing. We cannot yet see adult outcomes for the millennium cohort. If this pattern were to continue, it would be cause for concern.

A key policy question in the current context is whether the experience of social housing in childhood in any way contributes to the development of disadvantage later in life, rather than simply being correlated with it, by virtue of the fact that the social housing is allocated to disadvantaged families. If this were the case, we might look to housing policy to be able to exert some influence over later outcomes.

It is not possible using survey data to demonstrate conclusive, causal results on issues such as these. Only a fully controlled experimental method could be expected to deliver such results. Some would argue, like Burchardt et al that “given the complexity of influences on individuals, it is hard to make sense of the term ‘cause’ in the context of social exclusion at all” (2002, p8). However, we can gain some understanding of whether living in social housing in childhood is linked to adult outcomes, after taking account of other potentially explanatory factors that

we can observe. To do this, we estimate an Ordinary Least Squared (OLS) regression model to identify the relationship between cohort members who were ‘ever’ and ‘never’ in social housing and the value of each outcome variable measured at different ages in adulthood.

Not surprisingly, given the descriptive data presented above, we find a strong and statistically significant relationship between childhood social housing and worse adult outcomes on all of our measures. These data are shown in Appendix C. For example, people ‘ever’ in social housing in childhood smoked between two and three more cigarettes per day (at different ages, in different cohorts) and were between four and 11 percentage points less likely to be employed. However, these associations, like the descriptive ones, mainly reflect the relationship of social housing with parental disadvantage. People growing up in social housing have worse adult outcomes because they were more disadvantaged to begin with.

To address this problem, we introduce controls for family background (such as parental social class and education level and family size and structure), and also for characteristics of the cohort member in childhood that have been found in other studies to affect the outcomes that we look at (including

their height and weight at birth and their cognitive development and school attainment).

A full list of the controls used is included as Appendix D. In taking this approach, we are using very rich data to control for a wider range of childhood background factors than many other studies have been able to do. The results that we report reflect associations between housing tenure and outcomes that are not accounted for by any of the 'usual suspects' that we can observe in our data, particularly social class, parental interest in education, and childhood education and behaviour.

It is important to note that there are many other factors that may be relevant but which we do not observe in this data. Perhaps most likely to be significant would be the immediate events that precipitated entry into social housing. Family breakdown, bereavement, parental homelessness or unemployment, for example, might all lead to childhood social housing tenure and have long-lasting effects, while inheritance, promotion or other positive 'shocks' might enable a move to owner-occupation. We cannot identify such

events precisely here<sup>16</sup>. Psychological factors, such as the motivation or resilience of the cohort member might also be expected to be important. Furthermore, we apply broadly the same set of controls to all of our wide range of outcomes. It is possible that developing a bespoke set of controls, where possible, for each outcome, might increase accuracy. For example, we might want to consider parental smoking behaviour as a factor influencing cohort members' smoking. Further, and possibly most importantly, sample sizes and the nature of the data do not permit us to make direct comparisons between people in similar housing market positions (for example, marginal owner-occupiers, private renters on housing benefit and social tenants). We can only compare people with some experience of social housing and those with none. Those not in social housing will be a very broad social group. For all of these reasons, we cannot claim that childhood housing tenure causes any of the associations that might find, simply that these associations are not explained by any factors from the very wide range that are observable in the survey data.

<sup>16</sup>The cohort studies do offer the potential to identify changes in circumstance between sweeps. However, the precise sequence is not always known. For example, a person may have divorced and changed tenure since the previous survey, but we do not always know which occurred first.



## Childhood tenure and adult disadvantage: Statistical associations

The data in Appendix C show that once the controls are introduced, there is a large reduction in the association between childhood housing tenure and later outcomes, demonstrating that these raw associations are mainly driven by the existing disadvantage of social housing tenants, not by anything to do with tenure.

That said, our first finding after introducing controls is that we do not find any outcome where those in social housing as children had more positive scores than their counterparts in other tenures. Thus there is no evidence of social housing appearing to have a positive effect. We do find a number of variables where there is no significant difference between the two groups. This is also an important point. There are some areas where there is no evidence that housing tenure in childhood is linked to subsequent disadvantage.

Our second finding is that associations between social housing and worse outcomes appeared to get stronger from one cohort to another. Feinstein et al (2008) also found this when examining the

association between childhood social housing and a composite indicator of multiple deprivation. For the 1946 cohort the number of measures is smaller than for the other cohorts. Nevertheless, we find very few significant associations between social housing childhood and any adult outcomes. The only associations which are statistically significant at the conventional level (0.05) are with 'nervous disorder', cigarettes and obesity. People who were in social housing as children were 8.5 percentage points more likely than otherwise similar cohort members to experience nervous disorder at age 43, but not at other ages. They smoked about one and a half more cigarettes a day at ages 31 and 36 (against a mean of nearly 12 for age 31 and eight for age 36), but not at later ages, when cigarette smoking in general among this cohort had significantly declined. They were 4.5 percentage points more likely to be obese at age 53, but not at earlier ages.

For the 1958 cohort, we find negative associations between social housing in childhood and adult outcomes in every domain of life, but not on every indicator, and not at every age. In the health domain, those 'ever' in social housing reported higher malaise scores at every age and higher depression – an indicator variable which identifies those with malaise scores of eight or above – at age 23 and 42. They also smoked more cigarettes, between

half and one per day and had lower self-rated health at ages 33 and 42. They were more likely to be obese at age 23 but not thereafter. In the well-being domain, they reported significantly lower self efficacy and life satisfaction at ages 33 and 42. In the employment domain, they were less likely to be in paid employment at age 23 (in 1981) but not thereafter, although they were more likely to be in receipt of benefits at all ages<sup>17</sup>. Since qualifications tend mainly to be acquired early in life, we did not measure these at every age, but only at 23 and 46 (to account for subsequent adult learning). People in social housing as children had significantly lower qualifications at both 23 and 46 than people in other tenures, although they were not more likely to have problems with literacy or numeracy.

For the 1970 cohort we also find associations in every domain. Interestingly, we only find a significant association with malaise and depression at age 30, but a significant association at every age for self-rated health and cigarette smoking. Poorer self-rated health does not appear to be explained by greater obesity or lack of exercise, since we find no significant associations with tenure on these

variables. Those 'ever' in social housing as children also reported lower self efficacy at ages 30 and 34, and lower life satisfaction at age 26 and 30. In the employment domain, they were less likely to be in paid employment at both these ages (in the years 2000 and 2004), more likely to be in receipt of benefits, and, on average, to have lower qualification levels. They were significantly more likely to have basic skills problems at age 34. In every case except for self-efficacy, the strength of the associations was greater for the 1970 cohort than for the 1958 cohort.

These data are summarised in Table 8, where a shaded box shows that a particular outcome was not measured or not comparable at that age and a blank box shows that it was measured but no significant association was found. A dot indicates a significant association. The actual parameter estimates are presented in Appendix E. As previously mentioned, all the significant associations are in the same direction, ie results for those ever in social housing are greater for those never in social housing.

<sup>17</sup> The benefit system has changed over time, so slightly different benefits are measured at different sweeps. Housing benefit is included as one of the benefits from age 33 onwards in the NCDS but not at 23, which may influence these findings.

**Table 8 Summary of the number of significant associations between ‘ever’ experiencing social housing in childhood and adult outcomes, compared to ‘never’**

	NSHD					NCDS				BCS		
	26	31	36	43	53	23	33	42	46	26	30	34
<b>Health and health behaviours</b>												
Hospital admissions	■				■	■	■	■	■	■	■	■
Self-rated health		■	■	■	■		●	●		●	●	●
Malaise Score	■	■	■	■	■	●	●	●	■	■	●	
Depression	■	■	■	■	■	●		●	■	■	●	
Nervous disorder	■	■		●		■	■	■	■	■	■	■
Cigarettes	■	●	●			●	●	●	●	●	●	●
Obesity	■					●			■	■		■
Exercise	■	■	■	■	■	■				■		
<b>Well-being</b>												
Life satisfaction	■	■	■	■	■	■	●	●		●	●	
Low self-efficacy	■	■	■	■	■	■	●	●		■	●	●
<b>Employment</b>												
In paid employment	■					●				■	●	●
<b>Income</b>												
On means-tested benefits	■	■	■	■	■	●	●	●	■	■	●	●
Financial problems	■	■				■	■	■	■	■	■	■
<b>Education</b>												
Highest level of qualifications		■	■	■	■	●	■	■	●	●	■	●
Literacy or numeracy problem	■	■	■	■	■				■	■		●

Although identifying where significant effects emerge net of controls is important, it is also relevant to note the size of these associations. Take, for example, the BCS (where we have seen the largest effects) at age 34. In the health domain, most differences are small: for self-rated health 0.11 of a point on a four-point scale; for malaise 0.06 on a 24-point scale and for depression 1.9 percentage points in a situation where, overall, 15% of people report depression. All of these variations are substantially smaller than one standard deviation for the outcome in question (see Appendix B). Cigarette smoking (about one cigarette a day compared to a mean of around four) seems the biggest effect in this domain.

For well-being, differences in self-efficacy are in the order of 0.06 on a four-point scale, and in education 0.20 on a five-point scale. The biggest differences appear at first to be in the economic domain. The 'ever' group are four percentage points less likely to be in employment than the 'never' group and the same for the likelihood of being on benefits. Overall only eight per cent of cohort members are on benefits, so this seems a big difference. However, benefit data also include housing benefit, so this is perhaps not surprising. Eighty-three per cent of cohort members at this age were in paid employment. In the light of this high rate of

employment in both 'ever' and 'never' groups, the gap seems notable but not enormous. One useful way to reflect on this data is to consider what scale of public policy interventions might be justified in order to close a gap of this size. Large-scale transformations of social housing do not appear an appropriate response to differences of this scale.

## Gender differences

Further analysis indicates that these associations between social housing in childhood and later outcomes vary considerably by gender (Table 9).

For the 1946 cohort, social housing in childhood was only significantly associated with smoking in adulthood for women, not for men. For both men and women, childhood social housing was associated with adult nervous disorder (at age 43), but the size of the association was greater for girls than for boys.

A similar pattern was evident for the 1958 cohort. Here almost all the associations found in the health and well-being domain relate only to women. Net of our control variables, men who experienced social housing in childhood were no more likely than their counterparts in other tenures to

smoke as adults, or to report malaise or low self-efficacy. In the employment domain, the negative association between childhood social housing and paid employment at 23 was accounted for by the experience of women in social housing only.<sup>18</sup> Men in social housing as children experienced a smaller but significant association with paid employment at 33 (in 1991). However, findings in the education and income (benefit receipt) domains were similar for women and men.

For the 1970 cohort, a slightly different and more complex pattern emerges. With the exception of life satisfaction and basic skills at age 30, which were significant negative associations found only for women, and low self-efficacy at age 34, which is found only for men, all of the negative associations found between childhood social housing and adult outcomes are found both for men and women. However, consistent with the results for the 1946 and 1958 cohorts, outcomes in the health and health behaviours domain were relatively worse for women. Outcomes in the employment and income domains were similar, while for education, men who

experienced social housing in childhood were worse off.

## Parental advantage and social housing

One concern is that children who never lived in social housing are a very heterogeneous group. This might make us question how well we are comparing like with like when we compare all children who ever lived in social housing with all children who always lived in other tenures. To address this, we tested whether the association between childhood social housing and later outcomes varied according to our 'index of advantage' (see Chapter 2) – a measure of parental occupation and education that might broadly be taken as an indicator of social class.

We first used the index of advantage to construct a variable that ranged from one (most disadvantaged) to five (most advantaged), and included this as a control in our multivariate models<sup>19</sup>. We also included an additional variable (an 'interaction term')

<sup>18</sup> The benefit system has changed over time, so slightly different benefits are measured at different sweeps. Housing benefit is included as one of the benefits from age 33 onwards in the NCDS but not at 23, which may influence these findings.

<sup>19</sup> In these models the variables that were used to construct the index of advantage were eliminated from the set of controls.

**Table 9 Summary of the number of significant associations between ‘ever’ experiencing social housing in childhood and adult outcomes, compared to ‘never’, by gender**

		NSHD					NCDS				BCS		
		26	31	36	43	53	23	33	42	46	26	30	34
<b>Health and health behaviours</b>													
Hospital admissions	Women	■				■	■	■	■	■	■	■	■
	Men	■				■	■	■	■	■	■	■	■
Self-rated health	Women		■	■	■	■					●	●	●
	Men		■	■	■	■					●	●	●
Malaise Score	Women	■				■	●	●	●	■	■		
	Men	■				■				■	■	●	●
Depression	Women	■				■	●		●	■	■		
	Men	■				■				■	■		●
Nervous disorder	Women	■	■		●		■	■	■	■	■	■	■
	Men	■	■		●		■	■	■	■	■	■	■
Cigarettes	Women	■	●	●			●	●	●	●	●	●	●
	Men	■									●	●	●
Obesity	Women	■								■	■		■
	Men	■					●			■	■		■
Exercise	Women	■	■	■	■	■	■				■		
	Men	■	■	■	■	■	■				■		
<b>Well-being</b>													
Life satisfaction	Women	■					■	●	●	●		●	
	Men	■					■						
Low self-efficacy	Women	■					■	●	●	●	■	●	
	Men	■					■	●			■	●	●
<b>Employment</b>													
In paid employment	Women	■					●				■	●	●
	Men	■						●			■	●	●
<b>Income</b>													
Means-tested benefits	Women	■	■	■	■	■		●	●	■	■	●	●
	Men	■	■	■	■	■		●	●	■	■	●	●
Financial problems	Women	■	■				■	■	■	■	■	■	■
	Men	■	■				■	■	■	■	■	■	■
<b>Education</b>													
Highest qualification	Women		■	■	■	■	●	■	■	●	●	■	●
	Men		■	■	■	■	●	■	■	●	●	■	●
Basic skills problem	Women	■	■	■	■	■				■	■	●	●
	Men	■	■	■	■	■				■	■		

**Table 10 Summary of interactions between childhood social housing and index of advantage**

	NSHD					NCDS				BCS		
	26	31	36	43	53	23	33	42	46	26	30	34
Self-rated health		■	■	■	■							
Life satisfaction	■	■	■	■	■	■						
Low self-efficacy	■	■	■	■	■	■				■		
Paid employment	■									■	+	
Qualifications		■	■	■	■		■	■	-		■	-

which was the product of the index of advantage and the ever in social housing indicator<sup>20</sup>. Significant parameter estimates for the interaction term would suggest that the 'effect' of being in social housing, rather than being in another tenure, differs depending on how disadvantaged you are. For simplicity and ease of presentation, we examine here a more limited set of outcomes –one from each domain where earlier we found evidence of significant differences by housing tenure or for which there might be particular policy interest. We find very few significant interaction terms (Table 10). For the 1946 cohort, there is no evidence

for this subset of outcomes, that the association between social housing and adult outcomes differed by social class. For the 1958 cohort, the only significant association is for the level of qualifications at age 46. The relationship between having lived in social housing and educational qualifications is weaker amongst children who come from more disadvantaged backgrounds<sup>21</sup>. In other words, the more advantaged the cohort member, the higher the apparent educational penalty from social housing. A similar, significant result is found for the 1970 cohort at age 34.

<sup>20</sup> We also estimated similar models that included indicators for each of the bottom four quartiles (the most advantaged quartile formed the reference category) and each of these interacted with the ever in social housing indicator. The results were substantively similar to what is reported here.

<sup>21</sup> In fact, for the most disadvantaged group in the NCDS data, our parameter estimates suggest that those who grew up in social housing fared slightly better in terms of educational qualifications at age 46.

The only other significant interaction term is for employment in the 1970 cohort. At age 34, the negative association between having lived in social housing and employment is stronger for less advantaged groups. Social housing did not seem to exercise such a penalty for those who were more advantaged at birth. For all other outcome variables we consider here, there is no evidence that the association of social housing with adult outcomes differs by social class at birth.

## Regional differences

Finally, we explored whether the strength of the relationship between housing and tenure and disadvantage varied by region. Given the considerable difference in the size of different housing sectors in the countries and regions of Britain, we might expect some variation. There are a number of possible hypotheses. One is that in regions with a larger social housing sector, it might contain a more heterogeneous population, and also be less stigmatised, leading to less negative associations. On the other hand, regions with large social sectors would be more likely to have large estates and concentrations of poverty, which might be more detrimental.

To smooth boundary changes over time, and to group regions with similar housing characteristics to enable larger regional sample sizes for the cohort study analysis, we report on two countries (Scotland and Wales) and five English 'super regions' (North East, Rest of North, Midlands and East, London, Rest of South).

It is clear that there are considerable regional variations in outcomes between regions and between people who experienced social housing in childhood and those who did not<sup>13</sup>. For example, Figure 26 shows the percentage of people in paid employment at age 34 for the BCS (1970 cohort). It shows firstly that employment rates vary substantially between regions – regional variations are as large in some cases as the 'ever/never' gap, and the differences between genders and ages. Secondly, in each region, those who experienced social housing in childhood are less likely to be employed at age 34 than those who did not. Thirdly, the percentage point gap between those 'ever' and 'never' in social housing varies considerably between regions, from 13.2 points in the Midlands and East to 4.8 in the South and 5.9 in London.

<sup>22</sup> The data presented here shows the cohort members' region at birth.



Figure 26 **Percentage of cohort members in paid employment (age 34, BCS) by region and whether in social housing in childhood**

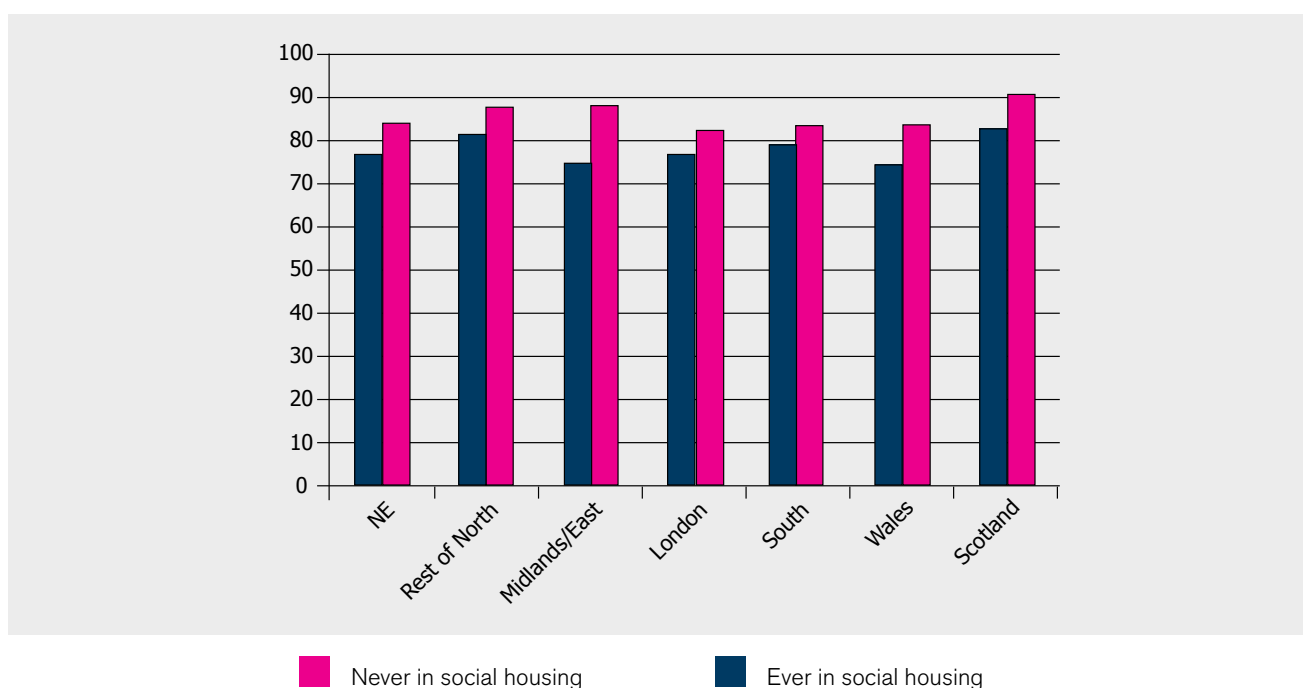


Table 11 illustrates that these patterns also vary by the particular outcome looked at. It also focuses on the BCS (1970 cohort) at age 34. For simplicity, we only show the gap between those ‘ever’ and ‘never’ in social housing, for the smaller subset of outcomes. In each case the region with the highest

gap is shaded. The table shows that educational and economic outcomes vary more between ‘ever’ and ‘never’ than others (in the health and well-being domains), but also that the extent of tenure variation between regions is relatively small except for paid

**Table 11 Regional variations in outcomes gaps (mean for those never in social housing minus the mean for those ever in social housing), 1970 cohort, age 34**

	North East	Rest of North	Midlands and East	London	South	Wales	Scotland
Self-rated health	0.3	0.3	0.2	0.2	0.2	0.1	0.3
Low self efficacy	-0.2	-0.2	-0.1	-0.2	-0.1	-0.3	-0.1
Life satisfaction	0.4	0.3	0.3	0.5	0.2	0.3	0.3
Paid work	-6.4	-6.5	-13.2	-5.9	-4.8	-9.5	-7.7
Highest qualification	-0.9	-0.8	-0.8	-1.0	-1.0	-0.9	-0.9

employment. No region is consistently the worst on all outcomes.

Of course these differences cannot be attributed to individual housing tenure. The comparative characteristics of people ever and never experiencing social housing in each region will be influential, as will features of each region (such as the labour market). In fact, when we include all our controls for parental circumstances and childhood factors, we find no strong and consistent pattern of regional differences in the association between tenure and outcomes.

The sample sizes for some regions were too small to permit running a separate model for each region. We therefore ran a model comparing all regions to

a reference region (Scotland). From this, we were able to construct region-specific housing tenure parameters, which are shown in Appendix F. These present a varied and inconclusive picture, with no region showing up consistently better or worse on a particular outcome across ages and cohorts. Furthermore few of the differences were statistically significant between Scotland and the other regions. We could not be confident that they had not occurred by chance. There is little here to suggest any difference in the relationship between childhood social housing and adult outcomes between these large super-regions, despite the differences in their housing systems.

## Summary and interpretation

This chapter has shown that, for all cohorts, in all the domains of life that we looked at (health, well-being, employment, income and education), people who experienced social housing in childhood had less favourable outcomes than those who did not. They point to some areas of variation that are not typically considered in housing policy, nor indeed in social policy generally, such as self-efficacy and overall life satisfaction.

However, when we control for family background and child characteristics, we find that associations between childhood social housing and adult outcomes are considerably reduced. They disappear for the 1946 cohort, who were children when social housing was relatively sought after and represented for many families a step up in housing conditions. We do find significant associations, after controls, for the 1958 cohort in all domains, though not on all measures. In the health and well-being domains, these results are driven almost entirely by the experience of women. For the 1970 cohort, who were children when owner-occupation had already significantly expanded and when social housing was beginning to be more closely targeted on the most disadvantaged families, the associations were

stronger, and evident for both men and women in all domains. The associations remained slightly stronger for women than men in the health and well-being domains. These patterns of negative associations growing stronger over time, and of greater associations for women in the 1958 cohort, was also found by Feinstein et al (2008) with a composite measure of multiple disadvantage as the outcome.

We cannot claim from these data and methodologies that social housing causes these outcomes. There are, however, associations between childhood housing and later outcomes that are not explained by many other factors, including parental background and earlier childhood characteristics. A further attempt to compare people only from the same social class group confirmed that the associations we find tend not to vary by social class, with a few exceptions and then only at a particular age. It appears that these associations with housing are not simply reflecting social position. Nor do they seem to reflect differences between housing systems in each region, or be driven by circumstances in particular regions. Housing tenure seems to have a similar relationship to other aspects of people's lives in most regions.

One possible explanation for these findings is that, even applying a very broad set of controls, we have not been able to successfully isolate the key essential attributes of the housing tenure experience itself, and are still capturing the influence of aspects of disadvantage that might cause people to be in social housing and cause them to suffer disadvantage later in life. We cannot discount this, and in the light of the small size of many of the associations, this is an important consideration. The lack of regional variation may arise because the super-regions are very big and there will be substantially more variation within them than between them. Moreover, 'region' also captures many other features apart from housing, which might cancel out housing differences.

If, however, we do take the findings as indicative of a 'tenure effect', there are a number of possible explanations. They may indicate something about the characteristics of social housing tenure that is connected to later outcomes, such as the housing itself, its management, or tenancy conditions, or perhaps what tenure signifies to tenants and others about their social position. Gender differences are noticeable. Associations between childhood social housing and negative health outcomes for women suggest different pathways for girls and boys from childhood social housing: pathways for

women that make them more likely than people not experiencing social housing to smoke or feel malaise. One plausible hypothesis is that for some young women, growing up in social housing predicts a pathway of early motherhood and perhaps intermittent or later employment, whereas for young men it predicts a pathway of employment (albeit possibly employment not relying on high educational attainment), that is less likely to lead to negative health behaviours or health. The change and decline in male industrial employment between the 1970s and 1980s, when the 1958 cohort were young men, and the early 2000s may account for the increasing similarity of young men's and young women's experiences.

Another explanation is that it is not tenure per se that is at work here, but neighbourhood or area. Employment and income differentials in particular might reflect lower educational attainment, which might in turn be the result of weaker schools in social housing neighbourhoods. Neighbourhood socialisation and peer effects might be factors. It is also plausible that associations between childhood social housing and later outcomes are related to the proximity of social housing to weaker labour markets, which could affect aspirations and expectations in childhood as well as labour market prospects in adulthood for those remaining in the

same area (Green and White, 2007; Fletcher et al, 2008). Some support for this thesis is provided by the fact that employment outcomes are more strongly and consistently differentiated for the 1970 cohort than the 1958 cohort. 1958 cohort members experienced most of their childhood during a period of high employment, whereas the 1970 cohort would have experienced the impact of large scale localised job losses. The stronger relationship between social housing in childhood, educational outcomes and self-efficacy for boys in the 1970 cohort is consistent with a concern about the impact of de-industrialisation on the aspirations and identities of young working-class men. By 1986, the youth labour market had deteriorated in many parts of the UK and those leaving school were often unemployed or only able to obtain casual employment. There were fewer apprenticeships although some enrolled in youth training programmes (Bynner et al, 2002).

Untangling these possible links between housing tenure in childhood and adult outcomes is a complex endeavour, and we cannot explore all possible explanations with the data we have here. We examine some of them in the next chapter.

# Chapter 4

## Inside the black box: What links childhood social housing and adult outcomes?

### Chapter summary

- We proposed and tested a number of possible explanations for the link between childhood housing tenure and later adult outcomes
- We are able to look at neighbourhood characteristics (for enumeration districts) for the 1958 cohort at ages 16 and 23. Cohort members in social housing at 16 were more likely to live in areas of high unemployment, and high proportions of social housing than were people in other tenures. However, neither neighbourhood characteristic (at age 16) that we examined was consistently related to adult outcomes at all ages and across outcomes, and neither appeared to explain the individual-level association between childhood housing tenure and adult disadvantage
- Measures of housing quality (overcrowding and amenities) also made little difference, when added as further controls
- However, housing trajectories in childhood did seem to matter. For both those born in 1958 and 1970, in every domain, children whose families moved into social housing during their

childhood fared worse than those who moved out. This emphasises the important influence of contextual factors and routes into social housing, as well as the experience of social housing itself

- We also looked at the possibility that childhood tenure might be linked to adult outcomes through an influence on the pathways that young people follow into adulthood. We found that for both the 1958 and 1970 cohorts young men and women in social housing at 16 were likely to become parents earlier than those in owner-occupation, and a little more likely to partner earlier, although not to live independently at an earlier date. These tenure differences held even controlling for social class. They were greater for the 1970 than the 1958 cohort – more advantaged young people have increasingly delayed parenthood, leading to a growing divergence in pathways by tenure. Further work is necessary to understand to what extent these different young adult transitions affect later outcomes, and thus whether and how interventions could fruitfully be targeted in young adulthood

## Neighbourhood characteristics

In this chapter, we examine a number of possible explanations for the associations that we find between childhood social housing and adult outcomes. We look both at variables in childhood and at transitions from childhood to adulthood.

It is possible that 'tenure' in these data captures not only the features of the physical home and the tenure per se (ie who owns and manages the home and the terms upon which it is occupied) but broader characteristics of the neighbourhood in which the housing is located.

There are perhaps three main kinds of neighbourhood characteristics that might be influential. One is economic. Much social housing was built either to house expanding industrial workforces or to re-house working class communities from inner-city slums. Social housing areas were more likely than areas of owner-occupation to be built on cheaper land closer to industrial sites and further from amenities, and more likely to be occupied by people on low incomes and/or low-skilled occupations (Lupton, 2003). Their fortunes were often closely tied to those of the industries that gave rise to them.

Tenure may thus reflect economic circumstances as well as housing-related characteristics. A second neighbourhood characteristic that might be reflected in 'tenure' is area environment and facilities. There might be systematic differences between neighbourhoods containing social housing and those not. Facilities (including schools) and transport connections often lagged behind house building as new estates were developed, and, although there is wide variation in experience, some social housing areas have continued to lack the facilities and amenities that private housing neighbourhoods enjoy. Poor environmental maintenance and concerns about safety have been long-standing problems in some estates (Hastings, 2005). Survey data consistently shows that social tenants tend to be less satisfied with their neighbourhoods than people in other tenures (Hills, 2007).

A third characteristic, intricately bound up with the others, is social. There is a considerable literature (although relatively limited quantitative evidence in the UK) about the ways in which young people's peer groups, social networks and social capital, as well as local norms and expectations and the social and practical support available to families, can influence children and their life trajectories

and outcomes (eg Howarth, 2002; MacDonald and Marsh, 2005; Green and White, 2007)<sup>23</sup>.

The British birth cohort studies contain relatively little neighbourhood data. We are able to look only at two sweeps of the NCDS (1958 cohort), at ages 16 and 23 (in 1974 and 1981), where some variables from the 1971 and 1981 Censuses of Population have been matched to the study at the level of the enumeration district (ED). EDs typically contain about 100-200 households – they represent the street or block level. We have no information on social or environmental characteristics, but can identify the proportion of economically active adults (15 and over) who were either seeking work or not working because of illness (an indicator of the local economic situation) and the proportion of permanent homes that were in social housing tenure (an indicator of whether the cohort member lived in a social housing area or a more mixed area). We use these measures from the 1971 census (matched to cohort data at age 16)<sup>24</sup> to identify whether any of the possible childhood social housing ‘effect’ on adult outcomes<sup>25</sup> that

we identified in the previous chapter seems likely to be attributable to the characteristics of the neighbourhood the cohort member lived in at age 16.

It is clear from our data that cohort members in social housing were more likely to live in areas of high unemployment than were people in other tenures. We divided the measure of unemployment and sickness at ED level into three categories (0-5%, 6-11% and 12% or above) in order to examine the particular effect of being at one end of the distribution or another (Figure 27). At age 16, the majority of cohort members in all tenures lived in EDs where the percentage of the economically active who were unemployed or sick was five per cent or under. However there were notable differences by housing tenure. Just under 20% of cohort members in social housing lived in EDs where unemployment and sickness was 12% or more, compared to 11% of private renters and nine per cent of owners. Social housing tenants were less likely to live in low unemployment EDs.

<sup>23</sup>A review of much of this material was recently conducted by Ruth Lupton and Keith Kintrea for the Cabinet Office. It is not currently published but can be obtained from [r.lupton@lse.ac.uk](mailto:r.lupton@lse.ac.uk).

<sup>24</sup>This is not an exact match, since the cohort data were collected in 1974 and the census in 1971. It is the nearest possible match.

<sup>25</sup>We use the more limited set of adult outcomes for simplicity.



Figure 27 **Percentage of cohort members in different tenures living in EDs with different proportions of unemployment/sickness (NCDS at age 16)**

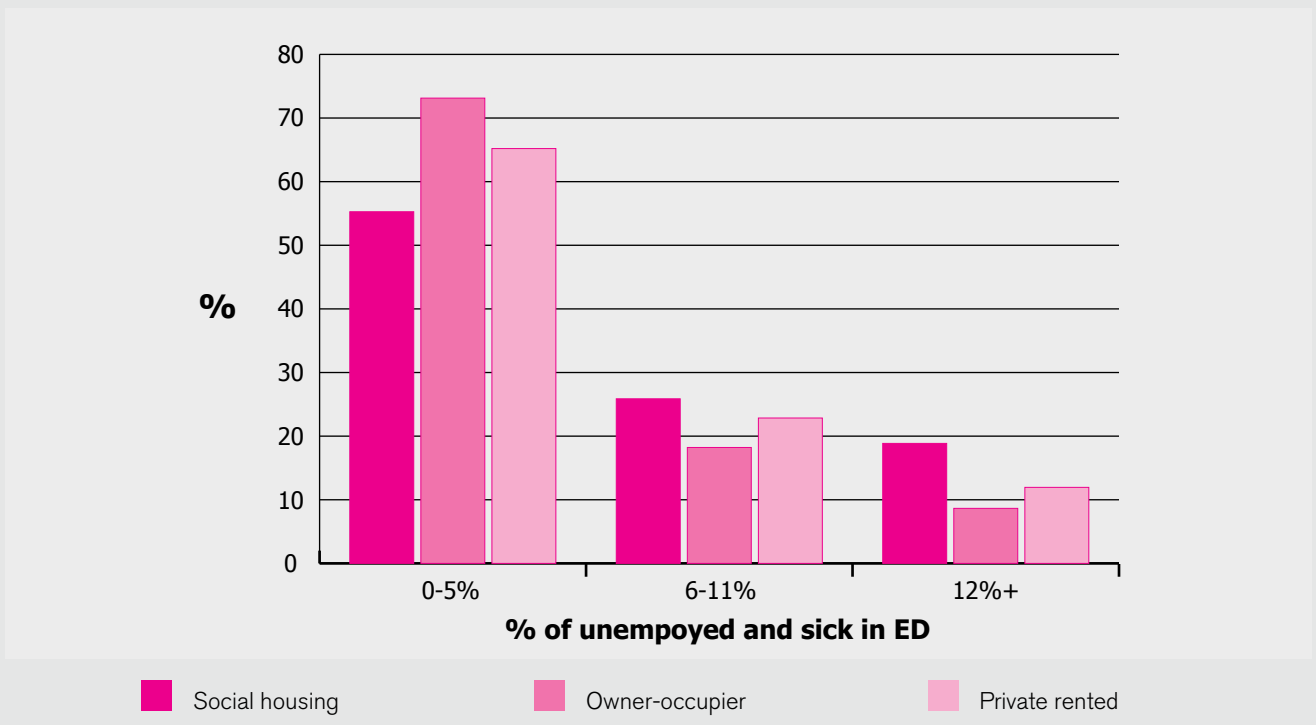
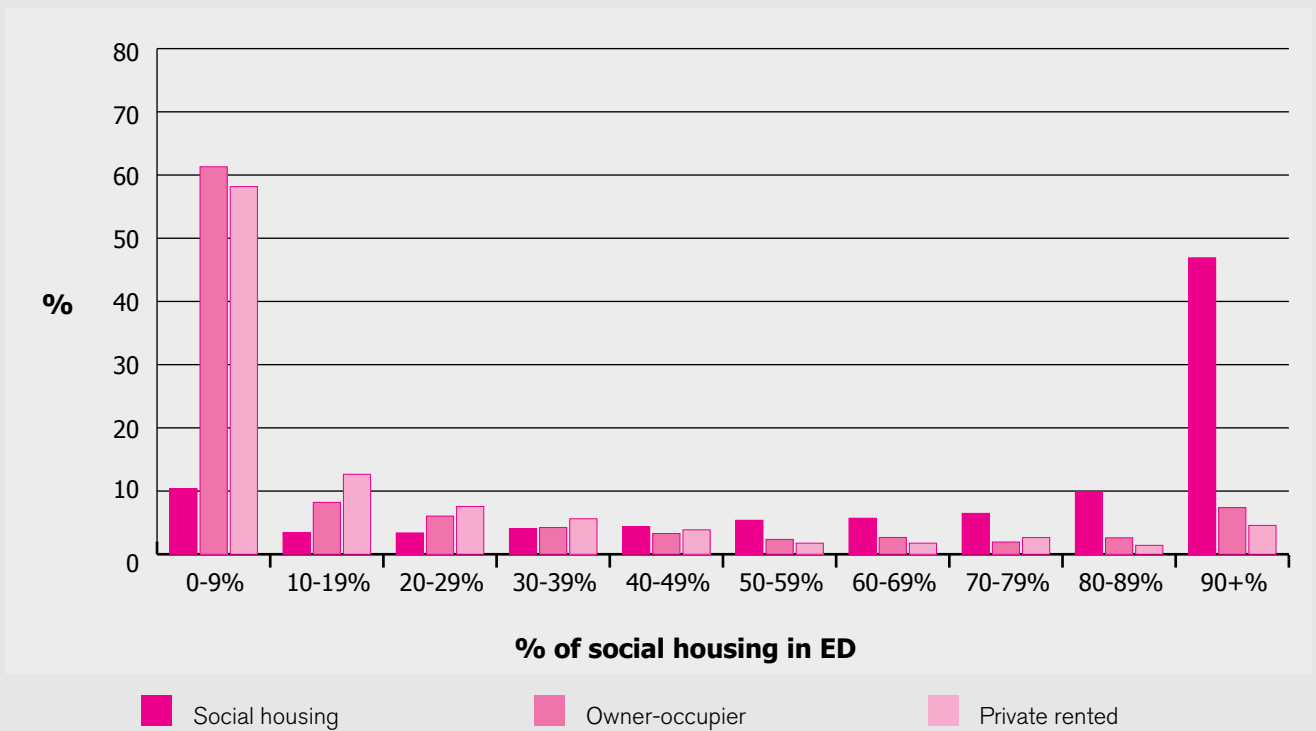


Figure 28 **Percentage of cohort members in different tenures living in EDs with different proportions of council tenants (NCDS at age 16)**



As we might expect, children living in social housing at 16 were also more likely to live in areas with high proportions of social housing (and less likely to live in areas with very low proportions of social housing) than were people in other tenures (Figure 28).

Only ten per cent of cohort members who lived in social housing were located in EDs with the lowest proportion of council tenants (0 to nine per cent) compared to 58% of renters and 61% of owners while almost half of NCDS sample in social housing lived in EDs with over 90% of council tenants. Note the polarised distribution of all households whatever their tenure, reflecting the fact that EDs tend to consist of fairly similar homes.

To examine whether neighbourhood level characteristics explain part of the association between having lived in social housing as children and adult outcomes, we compared parameter estimates for adult outcomes (net of our standard control variables) both before and after adding the neighbourhood-level variables that are available at 16<sup>26</sup>. Before adding area level variables we find that living in social housing during childhood is

significantly associated with lower self efficacy at 33 and 42, lower life satisfaction at the age of 33, lower likelihood of being in full employment at 23 and lower qualifications.

When we include neighbourhood measures of the proportion of social housing, we find very little evidence that they explain the association between social housing and adult outcomes. Living in an area with a high concentration of social housing tenants (over 50%) at age 16 is only significantly associated with self-rated health at age 46 (results not shown). No other significant parameter estimates obtain. Moreover, the inclusion of this variable does not appreciably alter the parameter for having grown up in social housing (Table 12, row two for each outcome). Although we can see from the table that results for having lived in social housing (shown in row one) do change when the neighbourhood controls are introduced, in many cases they were not significant to begin with. In the cases of life satisfaction at 33 and paid employment at 23, the inclusion of the neighbourhood control reduces the result for social housing to the point where it is no longer significant, but it was only just above the significance threshold in the first place. In other words, these are minor changes, which could arise simply because more 'noise' has been

<sup>26</sup> We have tried a range of different ways of including these measures in our models (as continuous variables and with a variety of high and low thresholds) and the results were all substantively the same as those presented in Table 12.

**Table 12 Association between childhood social housing and adult outcomes controlling for ED-level proportion of social housing and ED-level proportion unemployed when the cohort member was 16**

	Age			
	23	33	42	46
<b>Self-rated health</b>				
'Ever' in social housing (no ED variables included)	-0.012	-0.013	-0.018	-0.035
'Ever' in social housing (High/Medium (ref)/Low ED proportion of social housing included)	0.003	-0.010	0.007	0.014
'Ever' in social housing (High/Medium/Low (ref) ED proportion of unemployment included)	-0.012	-0.014	-0.015	-0.035
<b>Low self-efficacy</b>				
'Ever' in social housing (no ED variables included)		<b>0.072</b>	<b>0.079</b>	0.023
'Ever' in social housing (High/Medium (ref)/Low ED proportion of social housing included)		<b>0.069</b>	<b>0.078</b>	0.023
'Ever' in social housing (High/Medium/Low (ref) ED proportion of unemployment included)		<b>0.071</b>	<b>0.078</b>	0.024
<b>Life satisfaction</b>				
'Ever' in social housing (no ED variables included)		<b>-0.109</b>	-0.090	-0.016
'Ever' in social housing (High/Medium (ref)/Low ED proportion of social housing included)		-0.083	-0.088	0.019
'Ever' in social housing (High/Medium/Low (ref) ED proportion of unemployment included)		<b>-0.109</b>	-0.091	-0.018
<b>Paid employment</b>				
'Ever' in social housing (no ED variables included)	<b>-0.026</b>	0.001	0.014	-0.009
'Ever' in social housing (High/Medium (ref)/Low ED proportion of social housing included)	-0.016	0.006	0.015	-0.007
'Ever' in social housing (High/Medium/Low (ref) ED proportion of unemployment included)	<b>-0.024</b>	0.001	0.015	-0.009
<b>Highest level of qualification</b>				
'Ever' in social housing (no ED variables included)	<b>-0.122</b>			<b>-0.127</b>
'Ever' in social housing (High/Medium (ref)/Low ED proportion of social housing included)	<b>-0.113</b>			<b>-0.134</b>
'Ever' in social housing (High/Medium/Low (ref) ED proportion of unemployment included)	<b>-0.119</b>			<b>-0.127</b>

Note: Significant parameter estimates shown in bold. Shaded boxes indicate variable not measured or not comparable at that age.

added to the models. They do not indicate real and substantial neighbourhood effects.

When we add the ED-level measure of unemployment, we find (results not shown) that our neighbourhood measure of unemployment is only significantly associated with three of our five outcome measures: self-rated health at age 42, paid employment at age 23 and qualifications at 23<sup>27</sup>. Living in a neighbourhood with moderate levels of unemployment (six-11%) relative to a low level of unemployment is associated with poorer self-rated health. For qualifications, cohort members who lived in the neighbourhoods of highest unemployment had significantly lower qualifications. Finally both moderate and high levels of unemployment reduced the likelihood of paid employment by 3.1 and 3.5 percentage points, respectively, at age 23. However, including this control has almost no effect on the size of parameter for having grown up in social housing (Table 12, row three for each outcome). In other words, although related to later outcomes, the unemployment measure does not explain the housing tenure association over and above the

<sup>27</sup> This may be because our measure of unemployment refers only to the economically active population. The economic situation in an area is better measured by combining unemployment and working age economic inactivity. However this measure was not available to us.

control variables we have already included in the models we presented earlier.

To summarise, neither neighbourhood characteristic that we examine is consistently related to adult outcomes at all ages and across outcomes. Moreover, neither appears to explain the individual-level association between childhood housing tenure and adult disadvantage.

## The quality of housing in childhood

We adopted a similar approach to understand whether housing quality in childhood could be explaining some of the apparent tenure effect. As we showed in Chapter 2, the quality of housing has changed both in absolute terms, and relatively between tenures, over the post-war period. Social tenants in the 1946 cohort enjoyed relatively high quality housing, but their relative advantage was eroded over time. Could this account for the lack of any association between housing tenure and outcomes in the 1946 cohort, and the increasing association over time?

To test for this, we constructed three variables of housing quality based on measures that were

available throughout childhood for all cohorts: whether a cohort member was ever overcrowded in childhood, whether they ever lacked hot water and whether they ever lacked a bathroom. Since in the earlier cohort, social housing tenants enjoyed the best conditions on some of these aspects, and were better off than private renters on all, we might expect to see some change in the negative association between social tenure and outcomes – perhaps even a more negative association for the 1946 cohort. However, this was not the case. None of the parameter estimates changed significantly in any cohort once these controls were added. Moreover, we also found no consistent independent effect of any of these factors on later outcomes. It does not appear that differences in housing quality, at least the variables we were able to measure here, were driving our earlier results or that these measures significantly affect adult outcomes. We discuss why this might be the case in the concluding section of this chapter.

## Tenure trajectories in childhood

The analyses so far have attempted to capture childhood tenure and conditions by looking across childhood as a whole, and comparing people ‘ever’ experiencing a tenure or home type with those who

‘never’ experienced it. We recognise that in reality, childhood experiences probably influence later life in more complex ways. More time experiencing a condition might matter more than less time. Experiences at one time in childhood could add to or cancel out earlier ones. The specific age or historical time point at which a change is made could be influential, as could the fact or direction of change itself. Moving from better to worse circumstances, for example, could conceivably have a bigger effect than staying in moderate circumstances all along.

Capturing this complexity in its entirety is almost impossible. In this section we explore just one additional approach: examining tenure trajectories as children moved through childhood. We identified five groups with different tenure trajectories: those always in social housing as children, never, moving in during childhood, moving out, and having mixed trajectories involving moving both in and out. Over time, an increasing proportion was never in social housing (45% for the 1946 cohort, 52% for the 1958 and 62% for the 1970 cohort). About 20% for the 1946 and 1970 cohorts were in social housing throughout childhood, and rather more, 28%, for the 1958 cohort.

We focus now on two groups who both experienced social housing, but who were on different trajectories: families who were not in social housing early in their childhood but moved in, and those who were in social housing at the first observation but moved out. These make up relatively small proportions of the total sample. For the 1958 cohort, eight per cent were not in social housing to start with but moved in, while ten per cent were in social housing to start with and moved out. For the 1970 cohort, the corresponding figures were four per cent and 12%. However, this approach enables us to explore the possibility that unobserved characteristics of those in social housing might be explaining some of the associations we found earlier. People coming into social housing could be assumed to be more disadvantaged than those leaving it<sup>28</sup>.

The analysis shows illuminating results. For the 1946 cohort, there were no significant differences in outcomes between people moving in and out

of social housing. However, for both the 1958 and 1970 cohorts, in-movers experienced worse outcomes later in life than out-movers. Table 13 summarises the results, showing a dot where there was a significant difference between in and out movers. In all cases, the differences are negative ie the in group experienced worse outcomes than the out group.

The table indicates a clear difference between the 1958 and 1970 cohorts. The contrast between in and out movers is stronger for the 1958 cohort, where it is present for every measure apart from literacy and numeracy problems, at least at one age. For the 1970 cohort, it is present only for six. This is partly because we observe the 1958 cohort more times. A more accurate comparison is to look at cohort members' outcomes at similar ages. Comparing age 30 in the BCS with age 33 in the NCDS, many fewer differences between in and out groups emerge, although more do so by age 34. Education and employment domains hardly feature

<sup>28</sup>A further methodological advantage of comparing these two groups is that a more precisely ordered control strategy can be deployed. The ever/never approach is open to the possibility that childhood characteristics used as control variables (for example, a child's educational level, measured at a particular age) could have arisen either before moving into social housing or as a product of being in that tenure. By contrast, people who move into social housing must have prior characteristics developed outside social housing. A similar logic applies for people who move out of social housing. By controlling as near as we can to the point of entry, we can more confidently identify the characteristics of the cohort members independent of social housing. Here, then, we estimate adult outcomes for in compared to out groups, controlling for family background characteristics (known at birth) and those childhood controls measured at age four for NSHD, age seven for NCDS and age five for BCS. For the in and out groups, these controls happened before a change in tenure.

**Table 13 Comparisons between in-movers to social housing and out-movers, 1958 and 1970 cohorts**

	NCDS				BCS		
	23	33	42	46	26	30	34
Self-rated health	●	●	●				
Malaise score	●	●	●			●	●
Depression	●	●	●				●
Cigarettes	●	●	●	●	●	●	●
Obesity			●				
Exercise				●			
Life satisfaction		●					
Low self-efficacy		●	●	●		●	●
In paid employment	●	●					
On means-tested benefits	●	●	●				●
Highest level of qualifications	●			●			
Literacy or numeracy problem							●

Note: Shaded squares indicate that the variable was not measured or not compatible at that age.

for the BCS, and there are no contrasts between in and out groups for self-rated health and life satisfaction. Where both cohorts have significant results, the size of the associations for the 1958 cohort is bigger.

One explanation for the worse outcomes of the in compared to the out group is that changing tenure into social housing has a negative effect, or alternatively that moving out of social housing has a positive effect, plausibly associated with

moving to a more advantaged neighbourhood. In considering this explanation, it is important to note that we have not been able to look at possible counterfactuals. What would outcomes have been like for people if they had had to wait longer in slum housing or in temporary housing rather than moving into new social housing, for example? However, we also suggest that the contrast between the two cohorts seems to point to the importance of contextual differences as an explanation for the differences seen. People in the 1958 cohort,

who moved into social housing during the later 1950s and 1960s would often have been moving because of slum clearance programmes: moving from very disadvantaged circumstances and often into some of the poorest quality social housing built in this entire period. Those moving out were largely doing so to enter home ownership (see Chapter 2), which was still affordable and becoming increasingly available – a mark of improved family circumstances. By the time the 1970 cohort were children, people who found themselves in social housing were a relatively less advantaged group, and more likely than previously to be entering from home ownership, which suggests the increasing importance of family breakdown or mortgage default<sup>29</sup>. In other words there was a bigger contrast between the circumstances of in-movers and out-movers in the 1958 cohort, and this is where we see the biggest differences in their later outcomes.

This suggests that what the trajectory analysis is demonstrating is not so much the importance of changing tenure per se but the importance of social housing's changing role. It emphasises the influence of where people are coming from into the tenure, and their likely ability to be able to move out.

## Pathways to adulthood

Finally we consider the role of childhood tenure in the transition to adulthood. Many outcomes are separated by a long time between exposure and outcomes – so called sleeper effects (Ruspini, 2002). For example, childhood socio-economic background is thought to be one of the main predictors of cognitive development, which provides the underpinnings of academic achievement on which much success in later life depends (Schoon et al, 2002). The precise mechanisms by which earlier and later life events are linked is not necessarily known. In theory there are various ways, not mutually exclusive, in which childhood experiences could be related to the adult outcomes we measure:

- they could cause a specific event (for example, an illness or accident) that would have direct impacts later in life (for example preventing paid work or causing ill-health)
- they could set off or contribute to the development of psychological characteristics (such as resilience) or mental states (such as depression) which could influence later

<sup>29</sup>We cannot control for these factors in our models.



life experiences, and which could themselves develop over time to be reflected in the health and well-being measures that we examine

- they could influence the likelihood of significant transitions in early adulthood, which in turn impact on later adult outcomes. For example, childhood schooling might not be directly related to any of the outcomes we measure except highest qualifications, but might be important because it influences the likelihood of transition to higher education, which in turn influences the prospect of more challenging work and higher earnings, which in turn might be related to later outcomes in any of the domains we measure

In this section, we begin to explore this third route in respect of tenure. We look at the possibility that childhood tenure might be linked to adult outcomes through an influence on the pathways that young people follow in adulthood. We look at three pathways: to independent living, to partnership and to parenthood. For this exploratory exercise, we draw on just the 1958 and 1970 cohorts where we have data on housing, fertility and partnership histories. Further work might usefully look at education and employment and examine how all of these different pathways are sequentially related. It might also look to trace longer housing pathways, into older adulthood. Clearly, adult tenure is one

factor that might influence adult outcomes, although it has not been the focus of our work here.

For each cohort, we identify the cohort member's tenure at 16, on the basis that it is their tenure as they enter young adulthood that would most likely be influential. We identify the time at which each cohort member first moved into independent living, formed his/her first partnership, or had his/her first child, looking separately at the pathways of young men and young women. Independent living is defined as the first time that young people move into a household that did not contain their own parent<sup>30</sup>, first partnership is defined as the first episode of cohabitation/marriage, and first parenthood as the first instance of biological parenthood.

The first thing that the analysis shows is that young men took longer to make all these transitions than young women. For the 1958 cohort, the median age of first partnership for example (the age at

<sup>30</sup> For the NCDS it is possible to trace this through household composition contained in housing histories. For the BCS70, parental household is self-defined by the cohort member. Students are not separated in these analyses from other independent movers; however, the results clearly show the different trajectories and life course states that more socio-economically advantaged young people take (a higher proportion of which were students), compared to other young people.

**Table 14 Median age at first transitions, by gender, for 1958 and 1970 cohorts**

	NCDS (1958 cohort)		BCS (1970 cohort)	
	Men	Women	Men	Women
Independent living	22.4 yrs	20.5 yrs	22.8 yrs	20.9 yrs
Partnership	23.8 yrs	21.7 yrs	25.0 yrs	22.3 yrs
Parenthood	29.4 yrs	26.5 yrs	33.2 yrs	29.2 yrs

which 50% of the cohort are expected to have experienced the event) was 21.7 years for women, and over two years later at 23.8 years for men (Table 14). However, it is time to first parenthood that shows the greatest gender effect.

For both young men and young women, transitions varied considerably by social class, as measured by the index of advantage described earlier<sup>31</sup>. For entry to first partnership and parenthood, being advantaged was associated with a slower transition; although for independent living being advantaged was associated with a quicker transition. This quick transition out of the parental home for the most advantaged is likely to be associated with higher rates of higher education and becoming a student among the most advantaged. Overall,

however, there was a relatively small social class gradient for independent living and partnership. In both cases, only the most advantaged social group had a significantly different experience. For example, among the 1970 cohort, women in the most advantaged social group were likely to have reached the median age of 20.8 years when they first lived independently, compared to a year later for the least advantaged group (Table 16). However, for parenthood, social class differences were clearly evident between each social group, and more pronounced overall. For the same cohort, the median age at which women in the most advantaged social group had their first babies reached almost 33 years, compared to six years earlier at 27 years for the least advantaged group.

Differentials between the most advantaged and disadvantaged groups appeared to be growing by cohort for independent living and parenthood. Those in the most advantaged group were moving out

<sup>31</sup> The index of advantage is based on measures of parental education and occupation at the cohort member's birth. A further refinement would be to develop an index of advantage for age 16.

**Table 15 Predicted median age of first transitions for men, by index of advantage, for 1958 and 1970 cohorts**

	NCDS (1958 cohort)				BCS (1970 cohort)				
	Index of advantage group				Index of advantage group				
	1	2/3	4	5	1	2	3	4	5
Independent Living	22.9	23.1	22.9	21.5	23.7	23.9	23.7	23.0	21.8
Partnership	23.8	24.2	24.6	25.4	24.8	24.9	25.2	25.6	26.0
Parenthood	27.5	28.6	29.6	31.8	30.8	31.4	32.4	34.2	35.6

NB: Index of advantage group 1 is the least advantaged group. Group 5 is the most advantaged group. Two groups had the same score on this index in the NCDS so there are only four groups.

**Table 16 Predicted median age of first transitions for women, by index of advantage, for 1958 and 1970 cohorts**

	NCDS (1958 cohort)				BCS (1970 cohort)				
	Index of advantage group				Index of advantage group				
	1	2/3	4	5	1	2	3	4	5
Independent Living	20.9	21.3	21.2	20.4	21.9	22.0	21.9	21.7	20.8
Partnership	21.7	22.1	22.7	23.6	22.6	22.9	23.2	23.5	24.4
Parenthood	24.5	25.4	27.2	29.4	27.0	28.1	29.3	30.4	32.7

NB: Index of Advantage Group 1 is the least advantaged group. Group 4 or 5 is the most advantaged group. Two groups had the same score on this index in the NCDS so there are only four groups.

at a quicker rate and starting families at a slower rate relative to the least advantaged more so in the BCS70 cohort than NCDS. For example, the difference in median times between the rich and the

poor's journeys to motherhood increased by almost a year among the BCS70, and the indications are that early parenthood is becoming increasingly socially polarised.

The key question for this report is whether there is any difference in these patterns between people in different tenures, net of social class. We found that for independent living there was not. For both cohorts, a small difference between children of social housing tenants at age 16 and those of owner-occupiers was entirely accounted for by class. For the 1958 cohort, after controlling for social class, there were tenure differences in the time taken to first partnership for both men and women. Social housing tenants at age 16 formed first partnerships about six months earlier than owner-occupiers. For the 1970 cohort, there was no tenure difference for men, but the difference for women was greater, at approximately 11 months.

For parenthood, tenure differences were substantial, even after controlling for class. For the 1958 cohort, time to first parenthood reduced by approximately one and a half years for men and two years for women from social housing relative to those in owner-occupation. For the 1970 cohort, the comparable figures were approximately two and a half years for men and three years for women – a bigger gap.

Combining these three transitions together, the effect for the average person would be that young people in social housing would experience the three

significant life course events of independent living, partnership and parenthood in quicker succession, as well as at a younger age. This 'squeezing effect' became bigger from one cohort to the next. The experiences of people born in 1970 (now in their early 30s) who were living in social housing in 1986 were more different from those of their owner-occupying peers than were the experiences of people born twelve years before.

These patterns are summarised in Figures 29 to 32. Each figure shows the quintiles of the index of advantage along the bottom, and the predicted median age of event up the side<sup>13</sup>. A line sloping up to the right shows that the most advantaged groups experience the event later. There are two lines for each event, one for those in social housing at 16, the other for owner-occupiers. Close or identical lines indicate little tenure difference. Notably, each pair of lines remains broadly parallel in each figure, showing that tenure has a similar effect within each

<sup>13</sup> The predicted median time still refers to the point at which 50% of each group are expected to have experienced the event. However, in Figures 29-32 they now refer to the predicted point for each cohort, gender, tenure group and advantage category, with a separate estimate created for each category. The median age refers to the predicted median age derived from Lognormal event history models, a type of regression model that looks at time to event (parenthood/partnership/independent living) as the dependent variable, with both tenure at age 16 and index of advantage included.

Figure 29 Predicted median ages for different events by tenure at age 16 and index of advantage, NCDS females

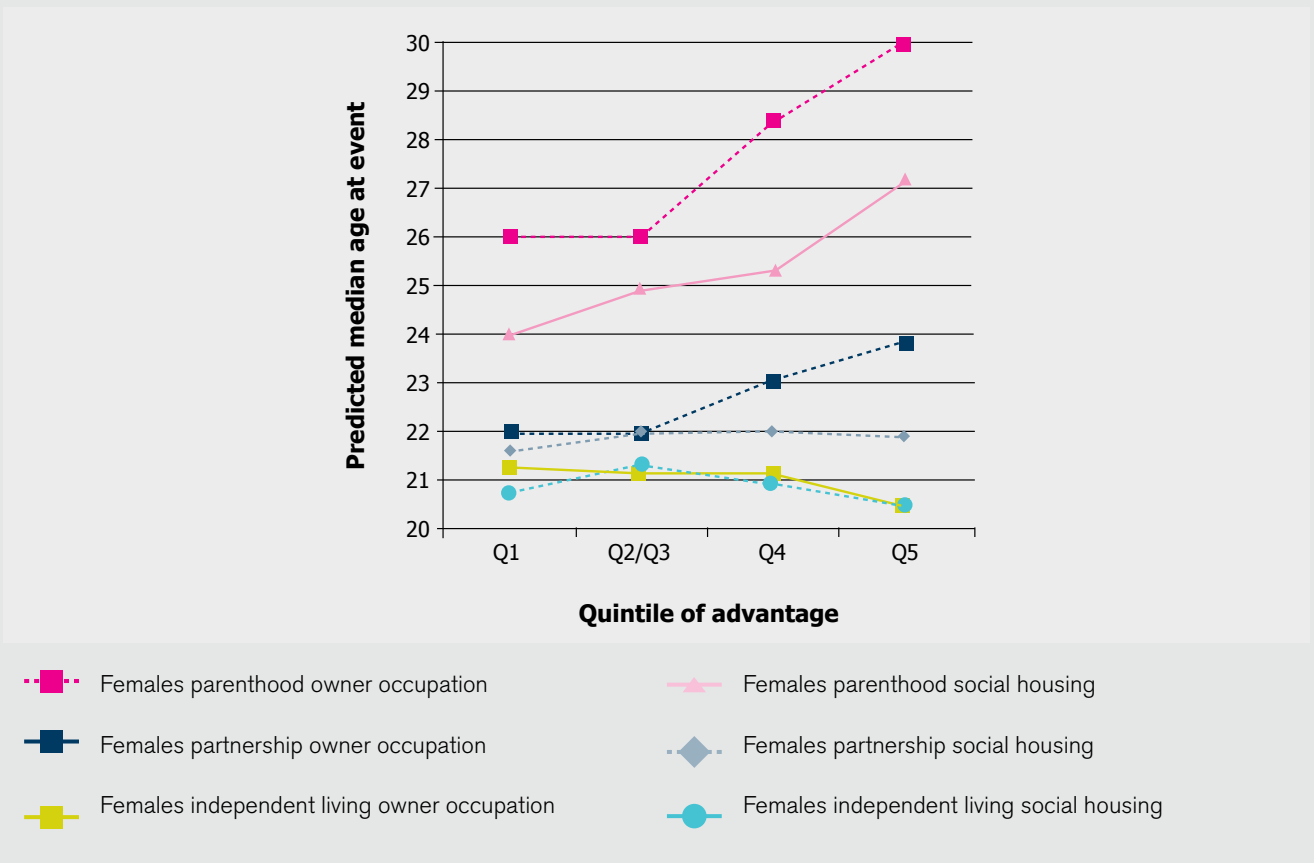
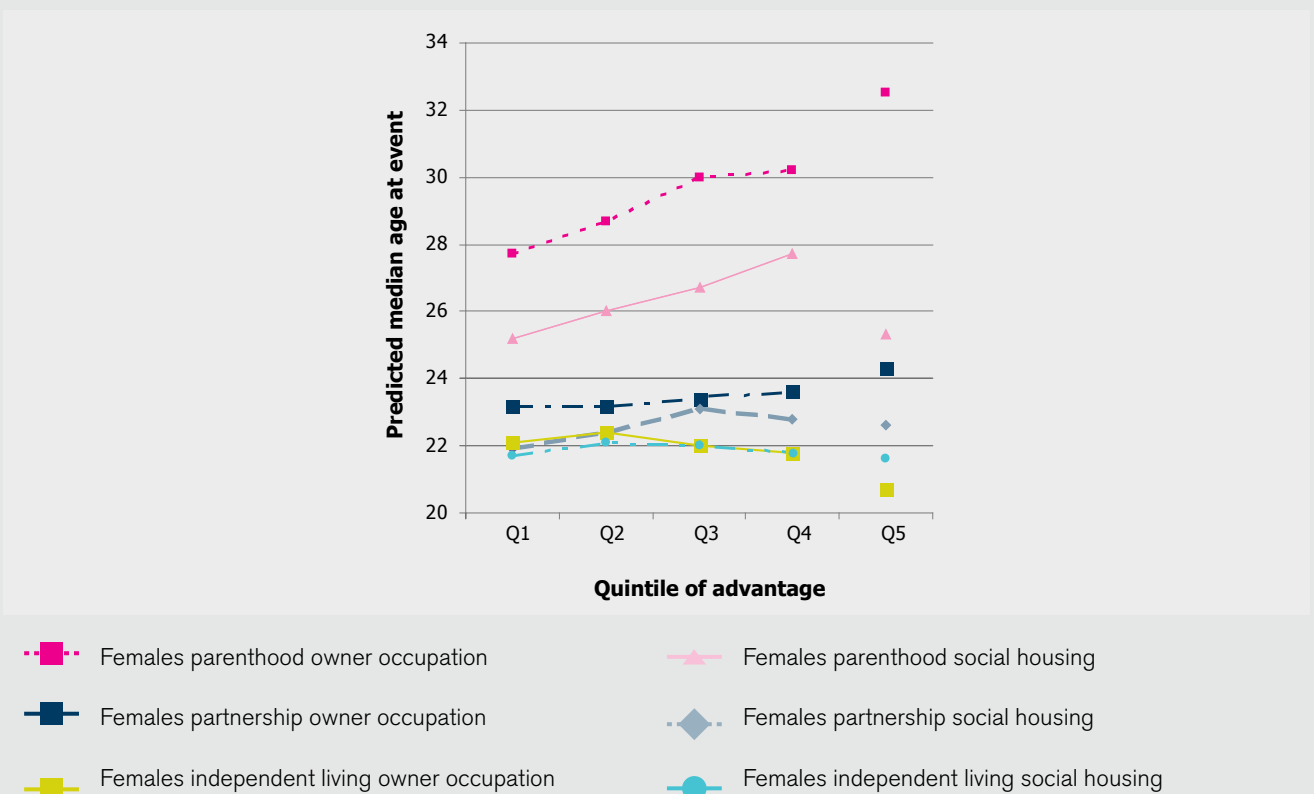
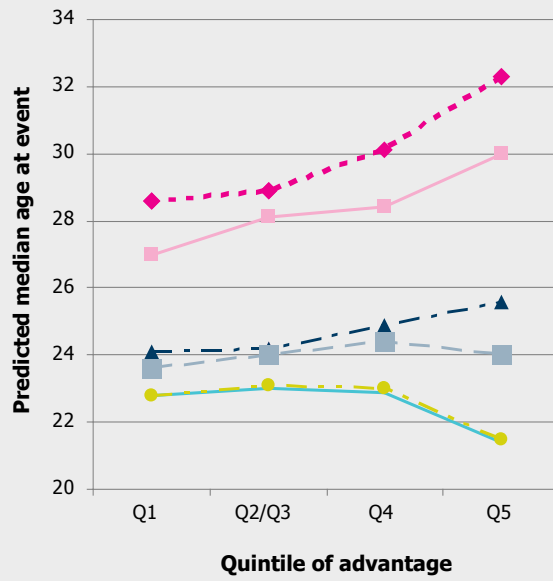


Figure 30 Predicted median ages for different events by tenure at age 16 and index of advantage BCS females



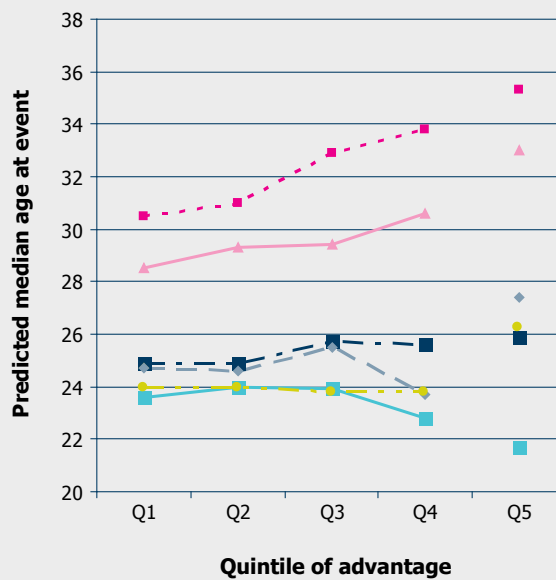
Note: As there are so few highly advantaged people in social housing, these estimates are highly descriptive in nature and are not included as part of the overall trend.

Figure 31 Predicted median ages for different events by tenure at age 16 and index of advantage, NCDS males



- ◆ Males parenthood owner occupation
- ▲ Males partnership owner occupation
- Males independent living owner occupation
- Males parenthood social housing
- Males partnership social housing
- Males independent living social housing

Figure 32 Predicted median ages for different events by tenure at age 16 and index of advantage, BCS males



- ◆ Males parenthood owner occupation
- ▲ Males partnership owner occupation
- Males independent living owner occupation
- ▲ Males parenthood social housing
- ◆ Males partnership social housing
- Males independent living social housing

Note: As there are so few highly advantaged people in social housing, these estimates are highly descriptive in nature and are not included as part of the overall trend.

advantage group<sup>14</sup>. The degree to which these lines deviated from being parallel was tested. Only in the case of entry into first partnership for NCDS females was there a case where the lines deviated from being parallel to a statistically significant degree. In all other instances, although the lines show that there was some small deviation from being parallel, this was not statistically significant. Social housing has the same effect within each advantage group, so in the case of parenthood for example, those living in social housing will experience parenthood earlier than those in owner-occupied housing, regardless of their advantage group. The exception to this was partnership in the NCDS cohort, where highly advantaged women in owner-occupied housing were postponing first partnership to a much greater degree than those in social housing, where being advantaged made little difference to the time to first partnership.

<sup>14</sup> To test that lines were not parallel and that advantage operated differently within different tenures, an interaction term was tested in each model. In each case this term was not statistically significant with the exception of NCDS female partnership patterns. The overall trend therefore suggests that tenure and advantage have additive effects in governing entry to adult transitions. However, other variables are also likely to govern these transitions.

## Summary and interpretation

In this chapter, we have begun to examine some of the factors and mechanisms that might explain the associations earlier found between childhood social housing and adult outcomes.

Looking first at factors in childhood, we found that three measures of housing quality (having hot water, having a bathroom, and whether or not overcrowded) had no significant relationship with adult outcomes, net of controls, and did not explain the tenure links with outcomes that we had previously seen. This is initially surprising, given the findings of other studies which have demonstrated an effect of childhood housing on health in childhood and adulthood (eg Barnes et al, 2008; Coggon et al, 1993; Mann et al, 1992). Our findings here should not be used to discount the possibility of long-run health effects of poor-quality childhood housing. We have tested a broad range of outcomes (low self-efficacy, life satisfaction, paid employment and qualifications as well as self rated health). The links between childhood housing quality and these adult outcomes are not straightforward. Many other factors are likely to intervene. Also, our housing quality measures are limited and exclude some such as damp and heating (measures that

are not consistently available in the cohort studies) that have been demonstrated to impact most directly on health in the short term. Studies that have tested specific hypothesised links between particular housing conditions and particular health outcomes have been able to gain more purchase on this issue (Galpin, Walker and Dubiel, 1992). What remains to be tested, perhaps more effectively through qualitative methods, is the impact of social housing's falling position relative to other tenures as the quality of housing generally has improved, and how this impacts on social tenants' understanding of their social position, entitlements and prospects.

Nor did we find that neighbourhood characteristics explained part of the association we first identified, when looking only at the relationship between area characteristics at age 16 and outcomes for the 1958 cohort (the only sweeps at which this analysis is currently possible). The proportion of social housing units in the cohort member's enumeration district (ED) did not have a significant effect on outcomes, net of controls, and did not change the parameter estimates for association between social housing and outcomes. The level of unemployment in the ED was associated with some outcomes, but did not reduce the parameter estimates for social housing. The measures available are crude indicators of the nature of the area. They

are at a very small scale. High social housing EDs could well be contained within much more mixed neighbourhoods. Further, the measure of unemployment among the economically active is a limited measure of the local economic situation. We find no evidence of a neighbourhood effect here, but suggest the need for further analysis with more sophisticated measures at a variety of geographies, and for the 1970 cohort. This would require matching of such measures into the cohort data.

We investigated the differential outcomes of children who had moved in and those who had moved out of social housing during childhood. In every domain, the 'in' group fared worse than the 'out' group. These differences were more marked for the 1958 cohort than the 1970 cohort, leading us to conclude that contextual differences rather than individual tenure changes probably explain them. The role that social housing plays at any given historical moment will give rise to different sub-groups within it – people who have come in at different times, had access to homes and areas of different quality, and had more or less constrained prospects for moving on. The results point to the need not just to differentiate within the social housing sector using information on their broad characteristics (as we do in our analyses), but also to develop a richer of understanding where people



are coming from, and their different needs and expectations of a social tenancy.

Finally we explored the relationships between tenure and young adult pathways, finding that people in social housing at 16 are likely to become parents earlier than those in owner-occupation, and a little more likely to partner earlier, although not to live independently at an earlier date. These differences hold even controlling for social class, which is surprising. It may again suggest that 'tenure' is capturing factors wider than aspects of the actual housing tenure itself, for example characteristics of area. The fact that we control for social class at birth while tenure is measured at 16 may also be relevant – current socio-economic circumstances may not be being reflected.

These tenure differences in young adult pathways were greater for the 1970 than the 1958 cohort. Although we have not attempted to explain the extent to which this might account for the associations we find between tenure and later outcomes, it is clearly plausible that early parenthood, in a low income context, might have a negative influence on some of the outcomes we measure (for example, Ermisch and Pevalin, 2003; Hobcraft and Kiernan, 2001; Harden, 2006; Hobcraft, 2008; Sigle-Rushton, 2005). If this is the case, interventions to reduce childhood tenure/adult disadvantage links would be better focused on support in young adulthood and beyond than on childhood circumstances. Understanding the mechanisms by which 'tenure' influences young adult pathways will also be important, particularly perhaps the influence of area.

# Chapter 5

## Conclusion and implications

### Summary of findings

In this report, we have drawn on data from four birth cohort studies tracking children born in 1946, 1958, 1970 and 2000, to document the changing role of social housing for families with children in Britain since the second world war. We have described their housing conditions, recorded their changing socio-economic characteristics and examined later life experiences for each different generation growing up in social housing.

Our enquiry was motivated by recent directions in housing policy debate which indicate a developing consensus that housing policy should be more fully integrated with active welfare state policies and perhaps that social housing policy could offer more towards the achievement of wider social policy goals such as higher employment, greater social mobility or a more cohesive society. This is a relatively recent development and not yet fully embedded in policy. It remains open to debate.

A key question in this debate is whether social housing in itself plays a role in helping people overcome individual disadvantage. Alternatively could it actually hinder this process? Finding that social housing plays a role in determining levels

of disadvantage would suggest that changes in housing policy could be a valuable lever in providing better life chances for social housing tenants. On the other hand, social housing may play no active role, and the current high levels of disadvantage among social housing tenants may simply be due to the fact that the sector offers homes for the least well-off in society. In this case, we would tend to focus more on the integration of other social support services with existing housing provision, rather than looking for a contribution from housing policy per se.

Building on the work of Feinstein et al (2008), our report focuses on families with children. Unlike other evidence which shows how adults currently living in social housing are disadvantaged, we adopt a life course approach. We examine whether housing tenure in childhood is associated in any way with health, well-being, education, employment and income in later life.

Looking simply at descriptive data, we find consistent and widespread adult disadvantage among those who grew up in social housing. Successive generations of children living in social housing have experienced worse outcomes in adulthood than their contemporaries who did not, across nearly all the adult outcomes we measure

and at all ages in early to mid-late adulthood. On some measures, the gap has grown over the years. For very few has it got smaller. If this trend persists for the millennium cohort, we will see an even greater division in adult outcomes between the current generation of children growing up in social housing and their peers than we have for previous generations. This is cause for concern.

One explanation for this large and growing gap is that social housing's role for families has changed over the period since the second world war. The role of social housing has diminished for families. Only 21% of the millennium cohort were in social housing at age five, compared to 32% for the 1970 cohort at the same age, 39% for the 1958 cohort at age seven and 37% for the 1946 cohort at age six. At the same time, it has become increasingly dominated by disadvantaged families. Although all social groups have moved into owner-occupation in increasing numbers, these shifts have been greater among more advantaged families. The least advantaged fifth of families still make up only 11% of owner-occupying families. However, they have increasingly dominated social housing.

These shifts have taken place simultaneously with other social changes which have increased the differential between more disadvantaged

families and others, such that tenure gaps have grown. Between 1970 and 2000, particularly, the proportion of lone mothers in social housing has grown rapidly, while changing little for owner-occupiers. The proportion of mothers in social housing in paid employment has actually reduced, and the chance of them having low qualifications has fallen relatively little compared to that of owner-occupier mothers. This points to the need for interventions in other areas of social policy, for example on childcare, or support for mothers in returning to education, training or work.

The absolute and relative quality and desirability of social housing has also changed, as standards in owner-occupation have improved. While social housing was often a 'move up' for families in the post-war period, it is less so now. Families living in social housing are now more likely than families in other tenures to experience low quality (as measured by amenities and crowding) or desirability (as measured by houses rather than flats).

In the light of these changes, it is not surprising that we find large and growing gaps over time between the adult outcomes of people who grew up in social housing and those who did not. But is any of the gap connected to housing tenure itself? To explore this, we conducted regression analyses

of the links between childhood housing tenure and adult outcomes. We introduced controls for a very wide range of other factors in family background and child development that might either affect the likelihood of being in social housing or the likelihood of adverse adult outcomes. In other words, we tried to strip out background influences in order to isolate more direct connections with housing tenure.

It is important to stress that this approach does not yield results that can be interpreted as causal. Only an experimental method which randomly allocated housing to some children and not others could provide evidence of causality. There are also potentially important factors that we cannot observe in these surveys, such as employment shocks or individual psychology. What we have sought to do is identify any associations, positive or negative, between childhood social housing and adult outcomes that cannot be explained by any other typically influential factors that we are able to observe.

Our findings corroborate and add more detail to those of Feinstein et al (2008). Rather than looking at a single composite measure of multiple disadvantage, as that work did, we have separately examined outcomes in five different domains of

life: health (and health behaviours), well-being, education, employment and income.

Like Feinstein et al, we find few significant associations for the 1946 cohort net of our controls. For the 1958 and 1970 cohorts, there is a small number of outcomes, such as taking regular exercise or being obese, which are not associated with childhood social housing tenure after controls. Although people who were born in 1958 and 1970 and grew up in social housing were more likely to take little exercise and be obese in adulthood, this appears to be connected to their family and individual characteristics rather than their housing. However, for most other outcomes, we do find associations after controls. All of these associations are in a negative direction, ie those who grew up in social housing were more disadvantaged in adulthood than those who did not, after taking background factors into account.

In the health and health behaviours domain, 'effect sizes' are relatively small. It is also notable that associations in this domain prevail principally for women, and indeed in the 1958 cohort, only for women. There may be long-lasting outcomes that arise from the differences in the lives of boys and girls in similar homes and estates, or it may be that our controls are less able to capture and account

for early disadvantage as it affects girls. In the employment, income and education domains, there are larger negative associations, for both men and women, and in both the 1958 and 1970 cohorts, although more consistently so in the 1970 cohort.

Effect sizes are typically larger for the 1970 cohort. The fact that associations between childhood social housing tenure and later disadvantage became stronger over a period in which social housing has been increasingly catering for a more disadvantaged segment of society tend to suggest that it is not anything inherent to social housing that contributes to later disadvantage but that the tenure has become more disadvantageous as it has become smaller and more targeted. This is a critical issue for policy. The efficiency of the system in targeting help towards those who need it has improved, but at the same time social housing may have developed characteristics that render it less helpful to individuals (such as stigma or relatively worse quality). On the other hand, we cannot discount the possibility that our statistical models have not been able to fully strip out all aspects of individual disadvantage. When we compare outcomes between families moving in and moving out of social housing in childhood, we find the 'in' group to have worse longer term outcomes than the 'out', suggesting that the circumstances in

which people enter a particular tenure may be as important as their experience of the tenure itself.

Our further analyses show that the main associations are not apparently mediated by or partly explained by region or housing quality. With a small number of exceptions, the direction and size of the association with housing tenure is the same for people in each quintile on a separately constructed index of family advantage. These findings taken together are somewhat surprising. In particular, the resilience of the social housing 'effect', even in quite different regional housing systems, again tends to suggest that it may be driven in part by elements of individual disadvantage that we are not able to observe in these data. These would, however, have to have powerful effects in order to 'knock out' the findings here and it seems crucial to try to investigate them further.

Small area (enumeration district) variables, taken from the 1971 census and matched into the 1958 cohort data at age 16, also seem to be unable to explain why social housing remains associated with adult outcomes net of our controls. Further work is needed to match and analyse area data at different spatial scales and for the 1970 cohort, and at different ages. Characteristics of area in adulthood may be more influential than those in childhood.

## Key findings

- The role of social housing has diminished for families, especially since 1970, and the gap between the socio-economic circumstances of families in social housing and those in other tenures has increased
- Social housing has also lost the relative advantages in quality and desirability that it enjoyed in the immediate post-war period
- Adult outcomes for people growing up in social housing are consistently worse, across many domains of life, than they are for people growing up in other tenures. As social housing has been more closely targeted on the most needy, the concentration of problems in the sector has increased, increasing the need for more support from other areas of social policy
- Much of this association, but not all, is explained by the background characteristics of tenants. However for the 1958 and 1970 cohorts, worse outcomes remain in evidence after controlling for these factors. They are stronger in the employment, income and education domains than for health and well-being

- As social housing has residualised, negative outcomes associated with it have become stronger. No negative associations are found for the 1946 cohort, some for 1958 and more for 1970
- These associations do not vary substantially by social class, region, housing quality or area characteristics. This is surprising and suggests that the strong effect of tenure may still be reflecting individual characteristics, even after the extensive use of controls
- People who moved into social housing as children had worse outcomes than people who moved out, which suggests that circumstances in which people experience a particular tenure is important, as well as the characteristics of the tenure itself

## Implications for policy

These findings do not lead to specific policy recommendations but they do have important implications for current housing policy debate and in particular the connections that are made between tenure effects and tenure-based policy.

The first key issue that our work illustrates is how difficult it is to identify 'tenure effects'. Tenure, strictly speaking, relates to the ownership of property and the conditions on which it is held. However, our work shows how, even with extensive control strategies, it is hard to isolate these factors either from the characteristics of the people in particular tenures or from the wider context. It is hard to be sure that all relevant aspects of individual disadvantage have been stripped out, leaving only a tenure effect. Even if it were, it is hard to separate these strict aspects of tenure (ownership and occupation) from the wider bundles of characteristics with which particular tenures are associated: factors such as location, area characteristics, cost, quality, and status.

These points may seem technical but they are crucial for policy. Some of the policy debate following the Hills review of social housing has indicated an enthusiasm to utilise tenure-based interventions, narrowly defined, in the quest to influence other public policy outcomes. This has been particularly evident in discussion of proposals to facilitate moves between landlords or to change the length of tenancies in order to improve possibilities for job-related mobility, given high rates of worklessness and low rates of mobility among social tenants.

Our findings do not rule these out, but they certainly provide no justification for them. To determine the likely success of policies to manipulate tenure we would really need very fine-tuned research that could demonstrate a link between particular bundles of tenure characteristics (including those in tenures other than social housing, such as the experience of being a marginal owner-occupier or shared owner) and particular outcomes. Such evidence is more likely to come from the controlled evaluation of policy interventions than from longitudinal survey data. It is important not to leap from apparent negative associations between social housing and outcomes to interventions based on specific tenure characteristics. Moreover, given the broad bundle of characteristics that make up tenure in reality, we should probably expect quite limited impacts on life chances from interventions that intervene only in tenancy conditions.

A second key issue is that tenures change. While clearly we can generalise that ownership may offer a certain mix of features and social renting another, most of the features are not inherent in a tenure as some kind of 'essence', but contingent and potentially changeable. One of our objectives in this work has been to take stock of social housing, at least in the role it has played for families: to understand what has happened to date in order to

inform policy going forward. We have illustrated how the reality and meaning of social housing changed for different generations of children, and indeed within generations. The scale of slum clearance and building in the 1960s, for example, and the rapid sale of council housing stock in the early 1980s, effected significant changes over short time periods. Over the period as a whole social housing moved from being a relatively scarce and sought-after option for families to being primarily a housing resource for those most in need. Over the same period, negative outcomes associated with it have appeared to worsen.

This review points to the need for strong historical context to frame debates on housing policy. From the current 'progressive' policy perspective, one interpretation that might be drawn from our findings of a negative link between childhood social housing and adult outcomes is that social housing has failed to deliver better life chances for the people it has housed. At least, it may be seen as disappointing that there appear to have been no discernible long term benefits from the stability and low rents that social housing provided for families with children, once other factors are taken into account. However, our research also demonstrates that, measured against some of its original objectives, social housing has been very successful. In its early

years, it contributed to the dramatic reduction in 'squalor' – one of the 'five giants' that Beveridge hoped the post-world war two welfare state would kill. For families, it largely replaced the insecurity of the private rented sector. It enabled those on moderate incomes to be in a position to move into home ownership as their families matured, while continuing to act as a safety net for the poorest families who could not afford other options. More recently, progress to secure Decent Homes in the social sector has meant that some of the worst conditions are now in parts of the private sector.

Moreover, we can hardly ascribe failure to social housing without knowing what would have happened to these same individuals had social housing not been built. While there is some evidence (Holmans 1987, Malpass 2000) that public housing investment crowded out some private building, 100% crowding out seems implausible. It is more likely that without the development of council housing, there would have been slower addition to national housing stocks, slower removal of homes in worse condition, and slower improvement in overall conditions. Poorer and needier people would have been more likely to be matched to the worse homes, with worse conditions prolonged for longer periods. We can only speculate about the long term impact these



conditions might have had. Instead of a 'failure' account, we suggest that our historical work demonstrates the role of mass social housing in a transitional period in later modern Britain - establishing better housing conditions and providing the security and affordability not available elsewhere in the system (Harloe 1995).

### **Interpretation and policy implications**

- Social housing is not inherently linked to negative outcomes – this was not the case when it was a broader and more attractive tenure. Nor has it failed in relation to its original objectives. However, as it has residualised, it seems to have become increasingly unlikely to deliver positive benefits in other aspects of people's lives
- It is extremely difficult to identify 'tenure effects', in the strict sense of property ownership and conditions of tenancy. Tenure almost always captures wider aspects of disadvantage

- Taken together, these findings suggest that limited interventions to manipulate conditions of tenancy are likely to have limited effect in overturning the broad patterns we identify here. This does not mean they could not benefit some individuals: specific costs and benefits would need to be identified through carefully evaluated interventions
- If we expect housing policy to contribute to other social and economic goals, attention needs to be given to wider ranging measures to reverse social housing's residualisation, including strengthening the social housing 'offer' (both the physical stock and neighbourhood characteristics) and widening availability and access. This requires a cross-tenure look, in view of supply and demand considerations
- Meanwhile, other areas of social policy, such as childcare and education need to respond better to the increasing concentrations of childhood disadvantage in social housing, to avoid perpetuating cycles of tenure-related disadvantage for future generations

This raises fundamental questions about what we should expect housing policy to do now. Clearly a return to a post-war housing system is neither possible nor desirable. Social housing's relative advantage at that time was of course partly due to housing shortages and very poor conditions in the private rented sector. Nor are large scale transformations justified by the size of the associations we report. However, our work does suggest that if we expect social housing not to compound disadvantage, and perhaps to help, we would have a better chance if the sector had broader appeal and greater relative advantages. A substantial and sustained effort (going beyond Decent Homes and focusing on place as well as housing) would be needed to give social housing better parity of quality and desirability. We would also need to consider broader usage, including people from more advantaged backgrounds.

In one sense, the current recession provides an opportunity to rethink social housing as a broader tenure, as the hazards of marginal owner-occupation become clear and people from a wider social group may find themselves falling back on social renting. However, it is far from evident that the long-term shift in aspirations towards home ownership has been reversed, nor whether the public is prepared to subsidise housing other than

for those who are most in need. There are also clear implications for supply, since the demand from people in the greatest housing need must also be met. Moreover, we are now in situation of greater socio-economic inequality than in the post-war period, which makes broader usage more difficult to achieve and makes it especially important that social housing should meet the needs of the most vulnerable. For these reasons, any changes to social housing access would need to be part of a cross-tenure approach (including, for example, looking at how the private rented sector could work more effectively for some of those who are currently in social housing), and applied in tandem with a reduction in inequality so that the same disadvantaged people were not simply displaced into other tenures.

Our purpose here is not to make specific recommendations but to highlight the need for a historically informed and broad debate about social housing's role and future, if we expect it also to contribute to broader life chances. A 'progressive vision' of social housing's role must be a wide one.

Finally, we emphasise that social housing 'effects' should not just lead to social housing policies. Social housing policy has certainly contributed both by accident (eg poor quality designs leading

to declining quality) and design (eg the Right to Buy) to social housing's shrinking role and its concentration on the most disadvantaged. These are lessons that need to be borne in mind for the future. However, the residualisation of the sector that we demonstrate so clearly in this report has also come about because of wider housing policies to support home ownership and as a result of broader social and economic changes. The growth of the middle class and increasing aspiration towards home ownership as well as the increasing availability of mortgages has helped leave social housing behind. De-industrialisation, globalisation and technological change, combined with the expansion of higher education and female professional employment have made sure that those who are left behind in society (and in social housing) are further behind than they previously were (Hills 1995, Glennerster et al, 2005). Social housing, like other parts of the welfare state, has to run harder to stand still in the face of growing social inequality, and has in practice become less able to promote positive life chances in these circumstances (eg Taylor Gooby, 2004).

The more that we target social housing on the disadvantaged, the more complex and intractable the problems in the tenure become, and the less can be expected of policies that manipulate tenure characteristics in isolation. In this sense, our research points more clearly to the need to reduce inequality, irrespective of housing, than it does to housing policy changes. In some respects, we might expect housing policy to do less, not more, with other social policies targeted towards those who need social housing to ensure that the disadvantage with which they enter the sector does not develop and continue over the life course.

# References

- Barnes, M., Butt, S. and Tomaszewski, W. (2008) *The Dynamics of Bad Housing: the impact of bad housing on the living standards of children*. London: Natcen
- Bennett, J. (2008) 'Introduction' in Feinstein, L., Lupton, R., Hammond, C., Mujtaba, T., Salter, E., and Sorhaindo, A. (2008) *The public value of social housing: A longitudinal analysis of the relationship between housing and life chances*. London: The Smith Institute
- Buck, T (1991) 'Rents and income: a legal overview' pp76-89 in eds. Lowe, S and Hughes, D *A new century of social housing*. Leicester: Leicester University Press
- Burchardt, T., Le Grand, J., and Piachaud, D. (2002) 'Introduction' in J. Hills, J. Le Grand, and D. Piachaud, *Understanding Social Exclusion*. Oxford: Oxford University Press
- Burnett, J (1978) *A social history of housing 1815-1970*. London: Methuen
- Bynner, J., Ferri, E. and Wadsworth, M. (2003) 'Changing Lives' in E. Ferri, J. Bynner, and M. Wadsworth, *Changing Lives: Three generations at the turn of the century*. London: Institute of Education
- Cave, M (2007) *Every Tenant Matters: A Review of Social Housing Regulation* London: Department for Communities & Local Government
- Centre for Social Justice (2008) *Housing Poverty: From Social Breakdown to Social Mobility*. London: Centre for Social Justice
- Chartered Institute of Housing (CIH) *Rethinking Housing*. Coventry: CIH
- Coggon, D., Barker, D.J. Inskip, I. and Wield, G. (1993) "Housing in early life and later mortality." *Journal of Epidemiology and Community Health*. 47: 345-348.

Coleman, D. (2000) 'Population and family' in A.H. Halsey and J.Webb (eds) Twentieth Century British Social Trends. London: Macmillan

Coleman, J. and Schofield, J. (2001) Key Data on Adolescence. Brighton: Trust for the Study of Adolescence

Currie, J. and Yelowitz, A. (2000) Are public housing projects bad for kids? Journal of Public Economics 75: 99-124.

Cmnd 6404 (1942) Social insurance and allied services: Report by Sir William Beveridge London: HMSO

Daunton, M.J. (1984). Introduction. In M .J. Daunton (ed.) Councillors and tenants: Local authority housing in English cities, 1919-1939. Leicester: Leicester University Press.

Donnison, D. & Ungerson, C. (1982). Housing policy (The Government of Housing revised). London: Penguin.

Dwelly, T and Cowans, J Rethinking Social Housing (London: Smith Institute, 2006)

Ermisch, J., and D. J. Pevalin. 2003. Does a 'Teen-birth' Have Longer-Term Impacts on the Mother? Evidence from the 1970 British Cohort Study. Working Papers 2003-28. Essex: University of Essex, Institute of Economic and Social Research.

Feinstein, L., Lupton, R., Hammond, C., Mujtaba, T., Salter, E., and Sorhaindo, A. (2008) The public value of social housing: A longitudinal analysis of the relationship between housing and life chances. London: The Smith Institute

Fletcher, D., Gore, T., Reeve, K., and Robinson, D. (2008) Social Housing and Worklessness: Qualitative Research Findings. London: Department for Work and Pensions Research Report No 521.

Forrest, R and Murie, A (1988) *Selling the welfare state: The privatisation of public housing* London: Routledge

Galpin, O.P., Walker, C.J., and Dubiel, A.J. (1992) "Helicobacter pylori infection and overcrowding in childhood." *Lancet* 339: 619.

Glendenning, M. and Muthesius, S. (1994). *Tower Block: Modern Public Housing in England, Scotland, Wales, and Northern Ireland*. New Haven: Yale University Press.

Glennerster, H., Hills, J., Piachaud, D. and Webb, J. (2005) *One Hundred Years of Poverty and Policy*. York: Joseph Rowntree Foundation

Goldthorpe J, Lockwood D, Bechhofer F and Platt J, (1968), *The Affluent Worker: industrial attitudes and Behaviour*. Cambridge; Cambridge University Press.

Green, A. and White, R. (2007) *Attachment to Place: Social Networks, Mobility and Prospects for Young People*. York: Joseph Rowntree Foundation.

Harden, A., Brunton, G., Fletcher, A., Oakley, A., Burchett, H. & Backhans, M. (2006) *Young people, pregnancy and social exclusion: A systematic synthesis of research evidence to identify effective, appropriate and promising approaches for prevention and support*. London, The Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre), Social Science Research Unit, Institute of Education, University of London.

Harloe, M (1995) *The people's home? Social rented housing in Europe and America*. Oxford: Blackwell

Hastings, A, Flint, J., MacKenzie, C. and Mills, C. (2005) *Cleaning Up Neighbourhoods*, Bristol: Policy Press

Hetherington, P (2008) 'Gaining stock' Interview with Margeret Beckett. *Guardian Society* 7th January

<http://www.guardian.co.uk/society/2009/jan/07/margaret-beckett-housing-minister-labour-politics-society>

Hills, J. (1995) Joseph Rowntree Foundation Inquiry into Income and Wealth. York: Joseph Rowntree Foundation

Hills, J. (2007) Ends & Means: The Future Roles of Social Housing in England, CASereport 34 London: ESRC Research Centre for the Analysis of Social Exclusion

Hobcraft, J. (2008) The timing and partnership context of becoming a parent: Cohort and gender commonalities and differences in childhood antecedents. *Demographic Research*, 19, 1281-1322.

Hobcraft, J.N. and Kiernan, K.E. (2001) Childhood Poverty, Early Motherhood and Adult Social Exclusion. *British Journal of Sociology* 52:495-517

Holmans, A. (1987). *Housing Policy in Britain: A History*. London: Croom Helm.

Holmans, A (2005) *Evaluation of English Housing Policy 1975-2000 Chorology and commentary* London: ODPM

Howarth, C. (2002) So, you're from Brixton? The struggle for recognition and esteem in a stigmatized community. *Ethnicities* 2 (2), 237-260

Kemp, P and Williams, P (1991) 'Housing management: An historical perspective' pp121-141 in eds. Lowe, S and Hughes, D *A new century of social housing* Leicester: Leicester University Press

Korpi, W and Plame, J (1998) 'The paradox of redistribution and strategies for equality: Welfare state institutions, inequality and poverty in the Western countries' *American Sociological Review* 63(5) pp661-687

Lee, P; Murie, A and Gordon, D (1995) Area measures of deprivation: A study of current methods and best practices in the identification of poor areas in Great Britain Birmingham: University of Birmingham, Centre for Urban and Regional Studies

Lupton, R. (2003) Poverty Street: The Dynamics of Area Decline and Renewal. Bristol: The Policy Press.

MacDonald, R. and Marsh. (2005) Disconnected Youth? Growing Up in Britain's Poor Neighbourhoods, Basingstoke: Palgrave

Macey, JP and Baker, CV (1982) Housing management 4th edn. London: The Estates Gazette

Malpass, P (2000) Housing associations and housing policy: A historical perspective Basingstoke: Macmillan

Mann, S.L., Wadsworth, M.E., and Colley, J.R. (1992) Accumulation of factors influencing respiratory illness in members of a national birth cohort and their offspring. *Journal of Epidemiology and Community Health*. 46: 286-292.

Newman, S.J. and Harkness, J.M. (2002) The long term effects of social housing on self-sufficiency. *Journal of Policy Analysis and Management* 21(2): 21-43.

Power, A (1987) Property before people: The management of twentieth-century council housing London: Allen and Unwin

Rodger, R ed. (1989) Scottish housing in the twentieth century. Leicester: Leicester University Press

Rugg, J. and Rhodes, D. (2008) The Private Rented Sector: its contribution and potential. York: Centre for Housing Policy



Ruspini, E. (2002) Introduction to Longitudinal Research.

The Scottish Government (2007) Firm foundations: The future of housing policy in Scotland A discussion document. Edinburgh: The Scottish Government

Schoon, I., Bynner, J., Joshi, H., Parsons, S., Wiggins, R. & Sacker, A. (2002) The Influence of Context, Timing and Duration of Risk Experiences for the Passage from Childhood to Midadulthood. *Child Development*, 73, 1486-1504.

Sigle-Rushton, W. (2005) Young Fatherhood and Subsequent Disadvantage in the United Kingdom. *Journal of Marriage and the Family* 67(3): 735-753.

Taylor Gooby, P ed. (2004) *New risks, new welfare: the transformation of the European welfare state*. Oxford: Oxford

Timmins, N. (1995) *The Five Giants: A Biography of the Welfare State*. London: Fontana

Tucker, J (1966) *Honorable estates* London: Victor Gollancz

Wadsworth, M., Ferri, E. and Bynner, J. (2003) 'Changing Britain' in E. Ferri, J. Bynner, and M. Wadsworth, *Changing Lives: Three generations at the turn of the century*. London: Institute of Education

# Appendix A

A brief overview of the British birth cohort studies

# The National Survey for Health and Development (NSHD)

## Sample approach/coverage

- All the people born in one week in one week in March 1946 (n= 16,500 babies) in England, Scotland and Wales

Then for all the follow ups, a representative sample of 5,362 of these babies, who were all the single born children (ie no twins) to married women with husbands in non-manual and agricultural employment and one in four of all other single born children. The sample is thus skewed away from people in industrial employment, although subsequently weighted back up by multiplying the manual worker sample by four.

## Methods

Interviews with the mother and sometimes the child during childhood and with the cohort member at 26, 36, 43 and 53, done by a variety of people including midwives and research nurses. In between these sweeps, the surveys were postal. Other data also collected at various sweeps including measures of height and weight, health measures by school doctors, reports by teachers on temperament and behaviour, and health tests in adulthood (eg for blood pressure, respiratory, cognitive and musculoskeletal function).

## Sweeps, dates and sample

This cohort has been followed 21 times in all.

Year	Age	Respondent	Contact	% of Target	Contacts at age
1946-50	0-4	Mother	4695	95	2 and 4
1951-61	5-15	Mother and Study Member	4307	89	6, 7, 8, 9, 10, 11, 13, 15
1962-81	16-35	Study Member	3538	78	16, 19, 20, 22, 24, 26, 31
1982	36	Study Member	3322	86	36
1989	43	Study Member	3262	87	43
1999	53	Study Member	3035	83	53

# The National Child Development Study (NCDS)

## Sample approach/coverage

- All the people born in one week in one week in March 1958 (n=almost 17,500 babies) in England, Scotland and Wales
- For the first three follow ups (NCDS 1 to 3), immigrants born in the relevant week also added

## Methods

For the birth study, a survey of the mother, plus medical information (midwife). 1965, 1969 and 1974, survey of the parents (interviewed by health visitors), plus medical (medical examination at school), plus cognitive tests, plus questionnaires filled in by schools head teachers and class teachers. 1981, 1991 and 1999 survey of the cohort member, by professional interviewers. In 2004-05 for the first time a telephone survey.

## Sweeps, dates and sample

Because of the addition of immigrants, the sample can be thought of in two ways:

- the longitudinal sample, consisting of all those born (alive or dead) in Great Britain in that particular week in March 1958, until they die or permanently emigrate from Britain
- the cross-sectional sample at a particular sweep, consisting of all those born anywhere in the world in that particular week in March 1958, and living in Britain at that sweep

The data collected on the babies at birth is known as the PMS. NCDS 1 is the first follow up.

	PMS	NCDS1	NCDS2	NCDS3	NCDS4	NCDS5	NCDS6	NCDS7
Date	1958	1965	1969	1974	1981	1991	1999	2004
Age	0	7	11	16	23	33	41	46
Achieved longitudinal	17,416	15,051	14,757	13,917	12,044	10,986	10,979	9,175
Achieved cross-sectional	17,416	15,425	15,337	14,647	12,537	11,407	11,419	9,531

NOTE: For a fuller report on attrition, see Hawkes and Plewis (2006). Modelling non-response in the National Child Development Study, Journal Of The Royal Statistical Society Series A, Royal Statistical Society, vol. 127(3), pages 479-491.

# The 1970 British Cohort Study (BCS)

## Sample approach/coverage

- All the people born in one week in one week in April 1970 (n=almost 17,200 babies) in England, Scotland and Wales (NI dropped after BCS 1)
- For the first two follow ups (BCS 2 and 3), immigrants born in the relevant week also added

## Methods

At 0 years/1970, questionnaire to midwife and clinical records. At five and ten years, health visitor interviews of parents, questionnaire to class and head teachers and school health services (linked to a child medical) and tests on young people (done by Department of Child Health, Bristol University and called 'Child Health and Education Study (CHES)). At 16 years old/ 1986 – 16 different surveys, as

above with additional four-day diaries by young people (one for nutrition and one for general activity), and more educational assessments (done by International Centre for Child Studies and named 'Youthscan'). At 26, postal survey of subjects. At 30 and 34, interview with CAPI and self-completion questionnaire by subjects.

## Sweeps, dates and sample

Again, because of the addition of immigrants, the sample can be thought of in two ways:

- the longitudinal sample consists of all those born (alive or dead) in Great Britain in that particular week in April 1970, until they die or permanently emigrate from Britain
- the cross-sectional sample at a particular sweep consists of all those born anywhere in the world in that particular week in April 1970, and living in Britain at that sweep

	BCS	CHES	CHES	YOUTHSCAN	BCS70	BCS70	BCS70
DATE	1970	1975	1980	1986	1996	1999/00	2004
AGE	0	5	10	16	26	30	34
Achieved longitudinal	16,571	12,981	14,350	11,206	8,654	10,833	9,316
Achieved cross-sectional	16,571	13,071	14,874	11,621	9,003	11,261	9,665

# Millennium Cohort Study (MCS)

## Sample approach/coverage

- Sample drawn from all live births in the UK over 12 months from 1 September 2000 in England and Wales and 1 December 2000 in Scotland and Northern Ireland, including 18,818 babies
- The babies were selected from a sample of wards disproportionately stratified to ensure adequate representation of all four UK countries, deprived areas and areas with high concentrations of black and Asian families

## Methods

All interviews have used CAPI. At nine months –c 1 year, interviews with mothers and fathers, where available. At circa three years interview and self-completion surveys with mother or main carer, with father or partner, observations of home environment, self completion by any older siblings. For the age five survey, data was additionally collected on the child's first full year at school.

## Sweeps, dates and sample

	MCS1	MSC2	MSC3
DATE	2000-01	2003-05	2006
AGE	9 months-1 year	3	5
Achieved longitudinal sample	18,818	15,808	15246
	16,571	13,071	14,874

# Appendix B

## Adult outcomes by gender

This appendix shows the average (mean) outcome for men and women separately, for all of the outcomes measured, at each age in adulthood. Please refer to Table 4 in the main report for details of the measures themselves. 'Obs' refers to the number of people for whom the outcome was recorded at that age. 'Std dev' refers to the standard deviation from the mean – a measure of the variability of outcomes on each measure.

## Appendix B 1946 cohort

Outcomes	MEN			WOMEN		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
<b>Health</b>						
Self-rated health at 26	4373	3.50	0.65	4327	3.31	0.72
Hospital admissions at 31	3837	0.20	0.40	3792	0.38	0.48
Hospital admissions at 36	3846	0.21	0.41	3838	0.50	0.50
Hospital admissions at 43	3752	0.30	0.46	3704	0.54	0.50
Nervous disorder at 36	3838	0.08	0.27	3831	0.16	0.36
Nervous disorder at 43	3755	0.15	0.36	3696	0.28	0.45
<b>Health behaviours</b>						
Cigarettes smoked/day at 31	3667	14.41	13.75	3779	9.13	11.12
Cigarettes smoked/day at 36	3837	9.30	17.39	3836	6.10	9.89
Cigarettes smoked/day at 43	3703	7.00	12.36	3677	5.25	9.24
Cigarettes smoked/day at 53	3342	4.87	9.95	3470	3.81	7.87
Obesity at 31	3412	0.06	0.23	3473	0.06	0.23
Obesity at 36	3783	0.06	0.24	3752	0.07	0.25
Obesity at 43	3715	0.11	0.31	3638	0.14	0.35
Obesity at 53	3336	0.23	0.42	3399	0.27	0.44
<b>Economic</b>						
Paid Employment at 31	3888	0.93	0.25	3862	0.52	0.50
Paid Employment at 36	3846	0.92	0.27	3838	0.63	0.48
Paid Employment at 43	3686	0.93	0.25	3673	0.81	0.39
Paid Employment at 53	3357	0.84	0.37	3470	0.73	0.45
Financial difficulties at 36	3845	0.22	0.41	3838	0.19	0.39
Financial difficulties at 43	3712	0.15	0.36	3669	0.15	0.35
Financial difficulties at 53	3346	0.12	0.33	3466	0.12	0.33
<b>Education</b>						
Highest qualifications at 26	5386	1.38	1.48	5028	1.10	1.28



## Appendix B 1958 cohort

Outcomes	MEN			WOMEN		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
<b>Health</b>						
Self-rated health at 23	6259	3.39	0.66	6266	3.30	0.68
Self-rated health at 33	5547	3.21	0.70	5728	3.17	0.70
Self-rated health at 42	5601	3.09	0.76	5774	3.07	0.77
Self-rated health at 46	4641	3.04	0.85	4886	2.98	0.90
Malaise score at 23	6229	2.04	2.48	6226	3.41	3.20
Malaise score at 33	5562	2.05	2.72	5759	2.84	3.19
Malaise score at 42	5531	3.11	3.41	5742	4.06	3.77
Depression at 23	6229	0.04	0.20	6226	0.11	0.31
Depression at 33	5562	0.05	0.21	5759	0.09	0.29
Depression at 42	5531	0.10	0.31	5742	0.16	0.37
<b>Health behaviours</b>						
Cigarettes smoked/day at 23	4470	9.60	10.79	4158	8.56	9.51
Cigarettes smoked/day at 33	5559	5.86	10.14	5771	5.07	8.80
Cigarettes smoked/day at 42	5335	5.03	9.53	5539	4.40	8.30
Cigarettes smoked/day at 46	4636	3.84	8.45	4890	3.64	7.69
Obesity at 23	6126	0.04	0.18	6147	0.04	0.19
Obesity at 33	5415	0.11	0.31	5549	0.12	0.32
Obesity at 42	5392	0.20	0.40	5575	0.18	0.39
Exercise at 33	5568	0.78	0.41	5763	0.78	0.42
Exercise at 42	5600	0.75	0.43	5773	0.73	0.45
Exercise at 46	4642	0.58	0.49	4887	0.55	0.50
<b>Economic</b>						
Low self-efficacy at 33	5108	0.43	0.74	5410	0.44	0.81
Low self-efficacy at 42	5509	0.40	0.71	5725	0.38	0.74
Low self-efficacy at 46	4530	0.30	0.66	4751	0.29	0.67
Life satisfaction at 33	5158	7.36	1.63	5471	7.53	1.75
Life satisfaction at 42	5532	7.23	1.80	5737	7.34	2.02
Life satisfaction at 46	4631	7.51	1.46	4879	7.63	1.52

<b>Economic</b>						
Paid Employment at 23	6251	0.83	0.38	6256	0.64	0.48
Paid Employment at 33	5584	0.90	0.29	5785	0.68	0.47
Paid Employment at 42	5607	0.90	0.29	5781	0.79	0.41
Paid Employment at 46	4643	0.92	0.27	4891	0.83	0.38
Means-tested benefits at 23	6258	0.14	0.35	6261	0.15	0.35
Means-tested benefits at 33	5566	0.10	0.30	5765	0.14	0.35
Means-tested benefits at 42	5607	0.11	0.31	5781	0.15	0.36
<b>EDUCATION</b>						
Highest qualifications at 23	6267	1.95	1.35	6270	1.74	1.32
Highest qualifications at 46	4643	2.01	1.40	4891	2.07	1.34
Basic skills at 23	6231	0.16	0.36	6246	0.11	0.31
Basic skills at 33	5574	0.14	0.35	5771	0.09	0.29
Basic skills at 42	5326	0.11	0.31	5490	0.06	0.25

## Appendix B 1970 cohort

Outcomes	MEN			WOMEN		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
<b>Health</b>						
Self-rated health at 26	4041	3.28	0.66	4835	3.22	0.64
Self-rated health at 30	5293	3.14	0.72	5711	3.16	0.71
Self-rated health at 34	4495	3.09	0.82	4991	3.03	0.88
Malaise score at 30	5239	3.17	3.38	5667	3.86	3.54
Malaise score at 34	4483	1.42	1.80	4969	1.91	1.96
Depression at 30	5239	0.11	0.31	5667	0.14	0.35
Depression at 34	4483	0.12	0.32	4969	0.19	0.39
<b>Health behaviours</b>						
Cigarettes smoked/day at 26	4041	4.70	7.97	4835	3.82	6.79
Cigarettes smoked/day at 30	4855	5.46	8.85	5289	3.88	7.05
Cigarettes smoked/day at 34	4170	4.46	8.29	4683	3.38	6.77
Obesity at 30	5032	0.14	0.35	5437	0.13	0.34
Exercise at 30	5288	0.80	0.40	5709	0.78	0.41
Exercise at 34	4497	0.78	0.41	4992	0.80	0.40
<b>Well-being</b>						
Low self-efficacy at 30	5222	0.37	0.68	5651	0.32	0.67
Low self-efficacy at 34	4471	0.30	0.66	4956	0.30	0.68
Life satisfaction at 26	4030	6.99	2.00	4831	7.28	1.93
Life satisfaction at 30	5237	7.19	1.80	5663	7.39	1.88
Life satisfaction at 34	4482	7.33	1.76	4968	7.48	1.83
<b>Economic</b>						
Paid Employment at 30	5300	0.90	0.30	5719	0.74	0.44
Paid Employment at 34	4499	0.93	0.26	4991	0.74	0.44
Means-tested benefits at 30	5300	0.12	0.32	5719	0.20	0.40
Means-tested benefits at 34	4496	0.06	0.24	4993	0.10	0.30
<b>Education</b>						
Highest qualifications at 26	3758	2.27	1.19	4569	2.27	1.11
Highest qualifications at 34	4491	2.37	1.34	4987	2.48	1.32
Basic skills at 30	5292	0.09	0.29	5712	0.06	0.23
Basic skills at 34	4497	0.14	0.35	4990	0.16	0.36

## Appendix C

### Parameter estimates for ever living in social housing as a child, including only gender as a control, compared to including all controls

This appendix shows the extent to which each of the outcomes is calculated to vary according to whether the cohort member was ever in social housing as a child, controlling only for gender, compared to when we control for all background factors listed in Appendix D. It aims to show how much the social housing effect reduces once controls are introduced. A negative sign means that the measured score for the outcome would be lower for someone ever in social housing than someone never in social housing. Please see Table 4 for details of how each outcome is measured.

\*\*\* indicates that the result is statistically significant at the 0.001 (0.1%) level, \*\* at the 0.01 level (1%) and \* at the 0.05 (5%) level, indicating that there is a 5% chance or less that the result has occurred by chance, ie the more asterisks, the more significant the result.

The figures in brackets are the standard errors for each coefficient. They indicate the amount of variation in a coefficient across cases.

## Appendix C 1946 cohort

	26	31	36	43	53
<b>Hospital admissions</b>					
control for sex only		0.033 [0.020]	0.010 [0.020]	0.025 [0.022]	
full controls		0.037 [0.023]	-0.008 [0.023]	0.020 [0.025]	
obs.		2790	2812	2714	
<b>Self-Rated Health</b>					
control for sex only	-0.104 *** [0.029]				
full controls	-0.017 [0.032]				
obs.	3195				
<b>Nervous Disorder</b>					
control for sex only			0.027 [0.014]	0.095 *** [0.018]	
full controls			0.009 [0.017]	0.085 *** [0.020]	
obs.			2805	2709	
<b>Cigarettes</b>					
control for sex only		2.511 *** [0.558]	3.062 *** [0.633]	1.893 *** [0.503]	1.496 *** [0.434]
full controls		1.420 * [0.631]	1.521 * [0.730]	0.455 [0.583]	0.136 [0.496]
obs.		2724	2808	2679	2495
<b>Obesity</b>					
control for sex only		-0.009 [0.011]	0.011 [0.011]	0.030 * [0.015]	0.059 ** [0.021]
full controls		-0.019 [0.012]	0.005 [0.013]	0.024 [0.017]	0.049 * [0.024]
obs.		2515	2766	2681	2466
<b>Paid Employment</b>					
control for sex only		-0.005 [0.018]	-0.015 [0.017]	-0.028 [0.015]	-0.017 [0.020]
full controls		0.007 [0.019]	0.000 [0.020]	-0.012 [0.017]	-0.003 [0.023]
obs.		2833	2812	2687	2500

	26	31	36	43	53
<b>Financial Problems</b>					
control for sex only			0.025	0.031	0.034 *
			[0.018]	[0.017]	[0.016]
full controls			-0.011	0.017	0.016
			[0.021]	[0.019]	[0.018]
			2812	2689	2497
<b>Qualifications</b>					
control for sex only	-0.504 ***				
	[0.051]				
full controls	0.052				
	[0.042]				
	3779				

## Appendix C 1958 cohort

	23		33		42		46	
<b>Self-rated health</b>								
controls for sex only	-0.091	***	-0.160	***	-0.178	***	-0.171	***
	[0.012]		[0.014]		[0.015]		[0.019]	
full controls	-0.009		-0.036	*	-0.040	*	-0.036	
	[0.015]		[0.016]		[0.017]		[0.022]	
	11660		10686		10696		9053	
<b>Malaise score (total)</b>								
controls for sex only	0.892	***	0.693	***	0.776	***		
	[0.053]		[0.058]		[0.070]			
full controls	0.321	***	0.178	**	0.273	***		
	[0.059]		[0.065]		[0.080]			
	11602		10736		10607			
<b>Depression</b>								
controls for sex only	0.051	***	0.041	***	0.062	***		
	[0.005]		[0.005]		[0.007]			
full controls	0.018	***	0.008		0.019	*		
	[0.006]		[0.006]		[0.008]			
	11602		10736		10607			
<b>Cigarettes smoked</b>								
controls for sex only	3.023	***	2.679	***	2.617	***	2.096	***
	[0.225]		[0.184]		[0.176]		[0.174]	
full controls	0.851	**	0.613	**	0.692	***	0.503	*
	[0.265]		[0.210]		[0.198]		[0.201]	
	8044		10737		10222		9052	
<b>Obesity</b>								
controls for sex only	0.025	***	0.038	***	0.052	***		
	[0.004]		[0.006]		[0.008]			
full controls	0.010	*	0.008		0.011			
	[0.004]		[0.008]		[0.010]			
	11440		10401		10321			
<b>Exercise</b>								
controls for sex only	-0.043	***	-0.057	***	-0.095	***		
	[0.008]		[0.008]		[0.010]			
full controls	0.008		0.001		-0.011			
	[0.010]		[0.010]		[0.012]			
	10739		10694		9055			

<b>Low self-efficacy</b>						
controls for sex only	0.190	***	0.169	***	0.121	
	[0.016]		[0.014]		[0.014]	
full controls	0.082	***	0.061	***	0.031	
	[0.018]		[0.017]		[0.017]	
	10013		10574		8818	
<b>Life satisfaction</b>						
controls for sex only	-0.155	***	-0.185	***	-0.103	**
	[0.034]		[0.037]		[0.032]	
full controls	-0.081	*	-0.098	*	-0.039	
	[0.040]		[0.044]		[0.038]	
	10122		10603		9037	
<b>Paid employment</b>						
controls for sex only	-0.094	***	-0.049	***	-0.040	***
	[0.008]		[0.008]		[0.007]	
full controls	-0.024	**	-0.010		0.001	
	[0.009]		[0.009]		[0.008]	
	11644		10774		10707	9059
<b>Benefit receipt</b>						
controls for sex only	0.085	***	0.082	***	0.087	***
	[0.007]		[0.006]		[0.006]	
full controls	0.018	*	0.025	***	0.030	***
	[0.007]		[0.007]		[0.007]	
	11656		10739		10707	
<b>Highest qualifications</b>						
controls for sex only	-0.838	***			-0.787	***
	[0.023]				[0.027]	
full controls	-0.130	***			-0.102	***
	[0.021]				[0.026]	
	11670				9059	
<b>Basic skills problems</b>						
controls for sex only	0.059	***	0.044	***	0.040	***
	[0.006]		[0.006]		[0.006]	
full controls	0.004		-0.001		0.000	
	[0.007]		[0.007]		[0.006]	
	11616		10753		10168	



## Appendix C 1970 cohort

	26		30		34	
<b>Self-rated health</b>						
controls for sex only	-0.146	***	-0.186	***	-0.213	***
	[0.016]		[0.015]		[0.020]	
full controls	-0.084	***	-0.092	***	-0.105	***
	[0.019]		[0.018]		[0.023]	
	7760		9650		8422	
<b>Malaise score (total)</b>						
controls for sex only			0.702	***	0.318	***
			[0.077]		[0.045]	
full controls			0.185	*	0.057	
			[0.088]		[0.052]	
			9568		8393	
<b>Depression</b>						
controls for sex only			0.058	***	0.061	***
			[0.007]		[0.009]	
full controls			0.018	*	0.019	
			[0.009]		[0.010]	
			9568		8393	
<b>Cigarettes smoked</b>						
controls for sex only	2.041	***	2.475	***	2.518	***
	[0.188]		[0.183]		[0.191]	
full controls	1.130	***	1.155	***	1.149	***
	[0.214]		[0.209]		[0.212]	
	7760		8906		7857	
<b>Obesity</b>						
controls for sex only			0.048	***		
			[0.008]			
full controls			0.012			
			[0.009]			
			9184			
<b>Exercise</b>						
controls for sex only			-0.037	***	-0.053	***
			[0.009]		[0.010]	
			0.010		-0.007	
full controls			[0.011]		[0.012]	
			9643		8424	

<b>Low self-efficacy</b>					
controls for sex only		0.190	***	0.169	***
		[0.015]		[0.017]	
full controls		0.065	***	0.058	**
		[0.018]		[0.019]	
		9543		8372	
<b>Life satisfaction</b>					
	<b>-0.331</b>	<b>***</b>		<b>-0.346</b>	<b>***</b>
				<b>-0.301</b>	<b>***</b>
controls for sex only	[0.049]			[0.043]	
	-0.129	*		-0.068	
full controls	[0.057]			[0.050]	
	7754			8391	
<b>Paid employment</b>					
controls for sex only		-0.115	***	-0.071	***
		[0.008]		[0.009]	
full controls		-0.051	***	-0.041	***
		[0.010]		[0.010]	
		9663		8426	
<b>Benefit receipt</b>					
controls for sex only		0.155	***	0.080	***
		[0.008]		[0.007]	
full controls		0.071	***	0.036	***
		[0.009]		[0.008]	
		9663		8425	
<b>Highest qualifications</b>					
controls for sex only	-0.742	***		-0.807	***
	[0.027]			[0.029]	
full controls	-0.163	***		-0.199	***
	[0.026]			[0.031]	
	7300			8417	
<b>Basic skills problems</b>					
		0.043	***	0.070	***
controls for sex only		[0.006]		[0.009]	
		0.011		0.023	*
full controls		[0.007]		[0.010]	
		9650		8424	

## Appendix D

Full list of controls used for each cohort

NSHD (1946 Cohort)	1958 Cohort	1970 Cohort
<b>Distal factors (ie socio-economic and demographic measures)</b>		
Level of father's education	Level of father's education	Father's highest qualifications
Level of mother's education	Level of mother's education	Mother's highest qualifications
Father's occupation (socio-economic group)	Father's occupation (socio-economic group)	Father's occupation (socio-economic group)
Mother's age at birth of cohort member	Mothers's age at birth of cohort member	Mothers's age at birth of cohort member
	Father's age at birth of cohort member	Father's age, cohort member 5 years old
Number of older siblings	Number of siblings when cohort member born, and at age 7)	Number of sibs at birth of child and at age 5
Whether mother a lone mother (at birth of cohort member, or at 4,6,8 or 16)	Whether mother a lone mother when cohort member was 7	Whether mother a lone mother at birth of child
	Whether not father present at least once at ages 0,7,11	
Whether mother working when cohort member aged 2	Whether mother working before cohort member age 5	Whether mother working at birth of child and at age 5
Household crowding: people per room at age 2	Household crowding: people per room when cohort member aged 0	Household crowding: people per room when cohort member aged 5
	Parent's income when cohort member aged 16	Parent's income when cohort member aged 16
	Whether parents in financial hardship at age 7,11 or 16	
<b>Proximal factors (ie factors in the home environment)</b>		
Parents' interest in primary education (teacher rated)	Parent's interest in education at 7, 11 and 16, teacher rated	Mother over-concerned about child, teacher-rating, child age 10
Parents' interest in secondary education (teacher rated)	Whether parents expect child to stay on post-secondary, when child aged 7	Mother hostile to child, teacher-rating, child age 10
Type of school preferred by mother for cohort member (at age 6, 8) (whether grammar, secondary modern, private or other)	Whether mothers read to children@7 weekly	Mother dismissive to child, teacher-rating, child age 10
	Whether mother reads books or technical journals	Father over-concerned about child, teacher-rating, child age 10
	Whether father reads books or technical journals	Father hostile to child, teacher-rating, child age 10
		Father dismissive to child, teacher-rating, child age 10
		Mother's depression rating (malaise score index, self report)
		Mother's attitude to TV-watching, child age 10
		Unauthoritaran parenting style, mother-survey questions, child age 10

### Cognitive development of the cohort member in childhood

Age 8 non-verbal intelligence: picture test	Age 7: Teacher's rating of child's progress	Age 5 copying score
Age 8: Sentence completion	Age 7 standardised maths score	Age 5 reading score
Age 8: Reading test	Age 7 standardised reading score	Age 5 Human Figure Drawing Score 1
Age 8: Vocabulary test	Age 7 standardised draw man score: (an indication of general mental and perceptual ability)	Age 5 Human Figure Drawing Score 2
Age 11: Arithmetic test	Age 7: Teacher's rating of oral ability teacher at 7	Age 5 profile drawing score
Age 11: Verbal intelligence test	Age 7: Teacher's rating of world awareness teacher	Age 5 vocabulary score
Age 11: Non-verbal intelligence test	Age 7: Teacher's rating of reading	Age 10 maths score
Age 11: Reading test	Age 7: Teacher's rating of creativity	Age 10 reading score
Age 15: Maths test	Age 7: Teacher's rating of number work	Age 10 British Ability Scales
Age 15: Verbal intelligence test	Age 11: Single index of teacher's rating of child's progress	Age 10 Picture Language test
Age 15: Non-verbal intelligence test	Age 7: Mispronounced words-test	Age 16 maths score
Age 15: Reading comprehension test	Age 11 standardised maths score	
	Age 11 standardised reading score	
	Age 11 standardised copying score	
	Age 16 standardised maths score	
	Age 16 standardised reading score	
	Whether cohort member talked by age 2	
	Whether cohort member walked by 18 months	
	Whether cohort member receives or would benefit from (teacher assessed) help in school for ESN (educational subnormality) at age 7	

### Affective and behavioural development of the cohort member in childhood

Age 10: Child's attitude to work, teacher-rating	Whether cohort member wetting bed at night at age 5	Age 5 mother-rated externalising behaviour
Age 10: Child's concentration: teacher-rating	Happy at school age 7, teacher rated	Age 5 mother-rated internalising behaviour
Age 13: Teacher's global assessment of behaviour	Disobedient at school age 7, teacher rated	Age 5 child soils self
Age 16: Teacher's global assessment of behaviour	Bullied at school age 11, teacher rated	Age 10, teacher-rated externalising behaviour
	Disobedient at school age 11, teacher rated	Age 10, teacher-rated internalising behaviour

Total of all Bristol Social Adjustment problems, all syndromes at age 7 and 11: total score of 12 syndromes/symptoms: Unforthcomingness, Withdrawal, Depression, Anxiety for acceptance by adults, Hostility towards adults, 'Writing off' of adults and adult standards, Anxiety for acceptance by children, Hostility towards children, Restlessness, 'Inconsequential' behaviour, Miscellaneous symptoms, Miscellaneous nervous symptoms), teacher rated	Age 10 truanting
Depression over 80% BSAG score at 7 and 11	Age 10 locus of control (education-based)
Hostility towards adults over 80% BSAG score at 7 and 11	Age 10 self-esteem score (self-report)
Writing off adults and adults' standards over 80% BSAG score at 7 and 11	Age 10, teacher-rated conduct disorder
Whether cohort member has behavioural difficulties at age 7 and 11 whether cohort member receives or would benefit from help with behaviour difficulties, teacher rated	Age 10 teacher-rated peer-relations score
Behavioural problems- avg Rutter parental scale; set of questions which combine to give an index of behaviour difficulties in the child, measured at each age: 7, 11 and 16	Age 10 teacher-rated attentiveness score
Single index of teacher's rating external behavioural problems, cohort member at 16	Age 10 teacher-rated extraversion score
Single index of teacher's rating internal behavioural problems, cohort member at 16	Age 10 teacher-rated communications score
Fights at school age 16, teacher rated	Age 10 teacher-rated anxiety score
Attendance in bottom 30% in 1972/3	Age 10 teacher-rated clumsiness score
	Age 10 teacher-rated hyperactivity score
	Age 10 child soils self

#### Health of cohort member in childhood

Weight at birth	Weight at birth	Weight at birth
Height at 2	Height at birth	Height at birth
Height at 4		

### School factors

Whether cohort member in independent school at age 7 and at 11	Whether cohort member in an independent school at age 10
Composition of school (proportion in cohort member's classroom high and low socio-economic status measured by father's occupation) at 7	Age 10 number of pupils receiving Remedial Reading Help, teacher report
% of 11 yr olds suitable for an academic secondary education, teacher report	Age 10 Number of pupils receiving Remedial Maths Help, teacher reported
% children under 16 years old in CM's school who have fathers in non-manual jobs ,	% of children in class with fathers in high skill occupational groups, cohort member at 10
CM in comprehensive school, cohort member 16	% of children in class with high academic achievement, cohort member at 10
CM in grammar school, cohort member at 16	% of children in class with fathers in low skill occupational groups, cohort member at 10
CM in secondary modern, cohort member at 16	% of children in class with fathers with low academic achievement, cohort member at 10
CM in private secondary, cohort member at 16	
% studying for GCE O level	
% studying for CSE only	
% remained at school after they could have left	
% pupils expelled	
CM in special needs edu @16	

## Appendix E

### Parameter estimates for ever living in social housing as a child, after controls

This appendix shows the extent to which each of the outcomes is calculated to vary according to whether the cohort member was ever in social housing as a child, net of controls. It provides more detail to Table 8 in the main report which shows whether an association exists for each outcome with being in social housing as a child. A negative sign means that the measured score for the outcome would be lower for someone ever in social housing than someone never in social housing, after taking background factors into account. Please see Table 4 for details of how each outcome is measured.

\*\*\* indicates that the result is statistically significant at the 0.001 (0.1%) level, \*\* at the 0.01 level (1%) and \* at the 0.05 (5%) level, indicating that there is a 5% chance or less that the result has occurred by chance. ie the more asterisks, the more significant the result.

The figures in brackets are the standard errors for each coefficient. They indicate the amount of variation in a coefficient across cases.



## Appendix E NSHD 1946 cohort

	26	31	36	43	53
Hospital admissions		0.037 [0.023] 2790	-0.008 [0.023] 2812	0.020 [0.025] 2714	
Self-Rated Health	-0.017 [0.032] 3195				
Nervous disorder			0.009 [0.017] 2805	0.085 *** [0.020] 2709	0.026 [0.021] 2448
Cigarettes		1.420 * [0.631] 2724	1.521 * [0.730] 2808	0.455 [0.583] 2679	0.136 [0.496] 2495
Obesity		-0.019 [0.012] 2515	0.005 [0.013] 2766	0.024 [0.017] 2681	0.049 * [0.024] 2466
Paid employment		0.007 [0.019] 2833	0.000 [0.020] 2812	-0.012 [0.017] 2687	-0.003 [0.023] 2500
Financial problems			-0.011 [0.021] 2812	0.017 [0.019] 2689	0.016 [0.018] 2497
Qualifications	0.052 [0.042] 3779				

## Appendix E 1958 cohort

	23	33	42	46
Self-rated health	-0.009 [0.015] 11660	-0.036 * [0.016] 10686	-0.04 * [0.017] 10696	-0.036 [0.022] 9053
malaise score (total)	0.321 *** [0.059] 11602	0.178 ** [0.065] 10736	0.273 *** [0.080] 10607	
Depression	0.018 *** [0.006] 11602	0.008 [0.006] 10736	0.019 * [0.008] 10607	
Cigarettes smoked	0.851 ** [0.265] 8044	0.613 ** [0.210] 10737	0.692 *** [0.198] 10222	0.503 * [0.201] 9052
Obesity	0.010 * [0.004] 11440	0.008 [0.008] 10401	0.011 [0.010] 10321	
Exercise		0.008 [0.010] 10739	0.001 [0.010] 10694	-0.011 [0.012] 9055
Low self-efficacy		0.082 *** [0.018] 10013	0.061 *** [0.017] 10574	0.031 [0.017] 8818
life satisfaction		-0.081 * [0.040] 10122	-0.098 * [0.044] 10603	-0.039 [0.038] 9037
paid employment	-0.024 ** [0.009] 11644	-0.010 [0.009] 10774	0.001 [0.008] 10707	-0.008 [0.008] 9059
benefit receipt	0.018 * [0.007] 11656	0.025 *** [0.007] 10739	0.030 *** [0.007] 10707	
highest qualifications	-0.130 *** [0.021] 11670			-0.102 *** [0.026] 9059
basic skills problems	0.004 [0.007] 11616	-0.001 [0.007] 10753	0.000 [0.006] 10168	

## Appendix E 1970 cohort

	26		30		34	
self-rated health	-0.084 ***		-0.092 ***		-0.105 ***	
	[0.019]		[0.018]		[0.023]	
	7760		9650		8422	
malaise score (total)			0.185 *		0.057	
			[0.088]		[0.052]	
			9568		8393	
depression			0.018 *		0.019	
			[0.009]		[0.010]	
			9568		8393	
cigarettes smoked	1.13 ***		1.155 ***		1.149 ***	
	[0.214]		[0.209]		[0.212]	
	7760		8906		7857	
obesity			0.012			
			[0.009]			
			9184			
exercise			0.010		-0.007	
			[0.011]		[0.012]	
			9643		8424	
low self-efficacy			0.065 ***		0.058 **	
			[0.018]		[0.019]	
			9543		8372	
life satisfaction	-0.129 *		-0.137 **		-0.068	
	[0.057]		[0.048]		[0.050]	
	7754		9563		8391	
paid employment			-0.051 ***		-0.041 ***	
			[0.010]		[0.010]	
			9663		8426	
benefit receipt			0.071 ***		0.036 ***	
			[0.009]		[0.008]	
			9663		8425	
highest qualifications	-0.163 ***				-0.199 ***	
	[0.026]				[0.031]	
	7300				8417	
basic skills problems			0.011		0.023 *	
			[0.007]		[0.010]	
			9650		8424	

# Appendix F

## Regional results

## Appendix F NSHD

### North East

	26	31	36	43	53
Hospital Admissions		-0.034	0.031	-0.025	
Self-Rated Health	0.003				
Nervous Disorder			0.076	-0.010	-0.067
Cigarettes		0.104	-1.349	-0.709	-0.250
Obesity		0.014	0.070 *	0.065	0.125
Paid Employment		0.008	-0.059	0.058	-0.082
Financial Difficulties			0.016	-0.045	-0.019
Qualifications	0.308 **				

### Rest of North

	26	31	36	43	53
Hospital Admissions		0.066	-0.011	-0.017	
Self-Rated Health	-0.016				
Nervous Disorder			-0.018	0.021	0.071
Cigarettes		1.156	1.980	0.472	-0.606
Obesity		-0.025	0.008	0.035	0.096
Paid Employment		-0.009	-0.036	-0.015	-0.016
Financial Difficulties			0.004	0.015	-0.010
Qualifications	0.092				

### Midlands

	26	31	36	43	53
Hospital Admissions		-0.005	-0.035	0.032	
Self-Rated Health	0.022				
Nervous Disorder			-0.018	0.016	0.023
Cigarettes		1.292	1.686	0.891	0.536
Obesity		-0.036	0.003	0.005	0.085
Paid Employment		0.021	0.003	0.009	0.032
Financial Difficulties			-0.001	-0.008	0.005
Qualifications	-0.015				

### London and South East

	26	31	36	43	53
Hospital Admissions		0.012	0.001	-0.004	
Self-Rated Health	0.036				
Nervous Disorder			0.003	0.088 **	-0.006
Cigarettes		1.120	0.379	0.261	0.525
Obesity		-0.007	-0.025	-0.026	-0.039
Paid Employment		-0.026	-0.019	-0.019	0.034
Financial Difficulties			-0.015	0.038	0.035
Qualifications	0.032				

## Rest of South

	26	31	36	43	53
Hospital Admissions		-0.032	0.040	0.008	
Self-Rated Health	0.001				
Nervous Disorder			-0.008	0.108 *	-0.031
Cigarettes		0.532	1.068	-1.409	-0.901
Obesity		0.000	0.017	0.065	0.040
Paid Employment		0.022	-0.030	0.026	0.088
Financial Difficulties			0.010	-0.050	-0.034
Qualifications	-0.038				

## Wales

	26	31	36	43	53
Hospital Admissions		-0.071	-0.009	0.152 *	
Self-Rated Health	0.075				
Nervous Disorder			0.102	0.140 *	0.107
Cigarettes		4.216 *	2.392	0.431	2.195
Obesity		-0.040	0.001	0.081	-0.025
Paid Employment		0.158 *	-0.019	0.006	-0.083
Financial Difficulties			0.037	0.080	0.121 *
Qualifications	0.023				

## Scotland

	26	31	36	43	53
Hospital Admissions		0.088	0.033	-0.025	
Self-Rated Health	-0.120				
Nervous Disorder			0.054	0.080	0.028
Cigarettes		3.490 *	4.209 **	3.360 **	0.486
Obesity		-0.024	-0.019	0.044	0.033
Paid Employment		0.044	0.091 *	-0.032	-0.032
Financial Difficulties			0.035	0.129 **	0.005
Qualifications	0.060				

## Appendix F NCDS and BCS

### North East

	NCDS				BCS			
	23	33	42	46	26	30	34	
self-rated health	-0.084	-0.073	-0.09	0.015	-0.005	-0.124 *	-0.147	
malaise score	0.289	-0.102	0.004			0.631 *	0.394 *	
depression	0.021	-0.007	-0.024			0.031	0.056	
cigarettes smoked	0.714	0.257	0.84	0.08	2.151 **	1.941 **	1.868 **	
obesity	0.012	0.033	-0.027			0.035		
regular exercise		-0.018	0.002	-0.037		-0.014	-0.033	
low self-efficacy		0.079	0.108	-0.019		0.111	0.13	
life satisfaction		-0.016	-0.032	-0.012	0.045	-0.063	-0.215	
paid employment	-0.078 *	-0.021	-0.036	0.014		-0.108 ***	-0.026	
benefit receipt	0.053	0.064 *	0.109 ***			0.086 **	0.029	
qualifications	-0.101			0.017	-0.223 **		-0.316 ***	
basic skills problems	-0.038	-0.013	-0.033			0.03	0.089 **	

### Rest of North

	NCDS				BCS			
	23	33	42	46	26	30	34	
self-rated health	-0.03	-0.039	-0.032	-0.012	-0.064	-0.087 *	-0.136 **	
malaise score	0.363 **	0.213	0.36 *			0.059	0.156	
depression	0.017	-0.002	0.039 *			0	0.055 *	
cigarettes smoked	0.151	0.133	0.534	0.481	1.199 **	1.072 *	1.116 *	
obesity	0.005	-0.025	-0.011			-0.001		
regular exercise		0	0.007	-0.005		0.113 **	0.035	
low self-efficacy		0.068	0.075 *	0.008		0.096 **	0.030	
life satisfaction		-0.091	-0.038	0.028	-0.183	-0.253 *	0.034	
paid employment	-0.033	-0.014	0	-0.015		-0.056 **	-0.028	
benefit receipt	0.039 *	0.043 **	0.034 *			0.115 ***	0.038 *	
qualifications	-0.141 ***			-0.084	-0.207 ***		-0.191 **	
basic skills problems	0.017	0.009	-0.027 *			-0.002	0.027	

## Midlands

	NCDS				BCS		
	23	33	42	46	26	30	34
self-rated health	-0.029	-0.029	-0.093 **	-0.07	-0.094 *	-0.098 **	-0.135 **
malaise score	0.359 ***	0.081	0.19			0.245	-0.074
depression	0.018	-0.005	0.01			0.032	-0.011
cigarettes smoked	0.759	0.751 *	0.667	0.549	0.885 *	1.14 **	1.808 ***
obesity	0.015	0.042 **	0.054 **			0.012	
regular exercise		-0.016	-0.014	-0.026		-0.011	-0.004
low self-efficacy		0.121 ***	0.039	0.059 *		0.016	0.011
life satisfaction		-0.094	-0.043	-0.141 *	-0.176	-0.175	-0.033
paid employment	-0.022	-0.003	-0.004	0.006		-0.039 *	-0.087 ***
benefit receipt	0.008	0.028 *	0.016			0.045 *	0.017
qualifications	-0.104 **			-0.078	-0.239 ***		-0.215 ***
basic skills problems	0.005	-0.011	0.024 *			-0.004	0.019



## London

	NCDS				BCS		
	23	33	42	46	26	30	34
self-rated health	0.032	0.024	0.041	0.022	-0.098	-0.103 *	-0.058
malaise score	0.212	0.014	-0.133			0.054	0.282 *
depression	0.028	0.005	-0.021			0.018	0.042
cigarettes smoked	0.357	0.181	-0.086	0.106	0.941	-0.12	-0.135
obesity	0.013	-0.013	-0.01			-0.014	
regular exercise		-0.011	-0.01	-0.016		0.037	-0.051
low self-efficacy		0.038	-0.01	-0.032		0.049	0.077
life satisfaction		0.036	-0.118	0.115	-0.199	-0.025	-0.236
paid employment	0	0.018	0.029	-0.026		-0.058 *	-0.028
benefit receipt	-0.007	-0.031	-0.017			0.038	0.052 *
qualifications	-0.234 ***			-0.249 **	-0.188 **		-0.334 ***
basic skills problems	0.02	0.017	-0.008			0.038	0.078 *

## South

	NCDS				BCS		
	23	33	42	46	26	30	34
self-rated health	0.032	-0.019	-0.001	-0.032	-0.071 *	-0.052	-0.089 *
malaise score	0.371 **	0.322 *	0.368 *			0.056	-0.133
depression	0.019	0.032 *	0.013			0.005	-0.014
cigarettes smoked	0.395	0.734	0.555	0.59	1.042 *	0.876 *	0.778 *
obesity	0.005	-0.003	0.003			0.017	
regular exercise		0.029	0.012	-0.034		-0.006	-0.022
low self-efficacy		0.121 **	0.094 **	0.041		0.058	0.035
life satisfaction		-0.209 *	-0.163	-0.015	-0.02	-0.069	-0.006
paid employment	0.005	0.01	0.023	0.017		0.006	-0.012
benefit receipt	-0.017	-0.005	0.033			0.033	0.017
qualifications	-0.147 ***			-0.123 *	-0.166 ***		-0.278 ***
basic skills problems	0.019	0.012	0.015			0.027	0.011

## Wales

	NCDS					BCS	
	23	33	42	46	26	30	34
self-rated health	-0.005	-0.123 *	-0.01	-0.097	-0.124	-0.058	-0.014
malaise score	0.358	0.19	0.647 *			0.619 *	0.252
depression	0.033	0.023	0.056			0.037	0.06
cigarettes smoked	2.82 **	1.418	0.796	0.896	1.01	2.246 **	1.162
obesity	0.026	0.023	0.031			0.018	
regular exercise		0.079 *	0.03	0.07		0.031	0.073
low self-efficacy		0.043	0.105	0.132 *		0.146 *	0.155 *
life satisfaction		-0.003	-0.351 *	-0.082	-0.175	-0.196	-0.058
paid employment	-0.034	-0.023	0.001	0.007		-0.089 *	-0.056
benefit receipt	0.046	0.042	0.045			0.101 **	0.053
qualifications	-0.204 **			-0.205 *	-0.178		-0.338 **
basic skills problems			-0.001			0.054 *	0.082 *

## Scotland

	NCDS					BCS	
	23	33	42	46	26	30	34
self-rated health	0.023	-0.077	-0.093	-0.085	-0.125 *	-0.172 ***	-0.163 **
malaise score	0.357 *	0.318	0.526 *			0.571 *	0.129
depression	0.019	0.02	0.041 *			0.045 *	0.006
cigarettes smoked	1.55	0.386	1.267 *	0.605	0.937	1.193 *	0.699
obesity	0.006	0.014	-0.001			-0.003	
regular exercise		0.038	-0.028	0.025		-0.002	-0.006
low self-efficacy		-0.012	-0.015	0.047		0.049	0.023
life satisfaction		0.012	-0.076	-0.083	-0.108	-0.108	-0.036
paid employment	-0.034	-0.055 *	0.001	-0.034		-0.079 **	-0.043
benefit receipt	0.032	0.039	0.029			0.079 ***	0.028
qualifications	-0.074			-0.071	-0.245 ***		-0.154 *
basic skills problems	-0.009	-0.028	0.005			0.003	-0.037

## **Our offices**

Maple House  
149 Tottenham Court Road  
London W1T 7BN

Fourth Floor  
One Piccadilly Gardens  
Manchester M1 1RG

For enquiries, contact us at:  
Tel: 0845 230 7000  
Fax: 0113 233 7101  
Email: [enquiries@tsa.gsx.gov.uk](mailto:enquiries@tsa.gsx.gov.uk)  
Website: [www.tenant-services-authority.org](http://www.tenant-services-authority.org)

## Growing up in social housing in Britain

A profile of four generations, 1946 to the present day

This research draws on four British birth cohort studies to examine the role of social housing for four generations of families since the second world war. It describes how housing for families changed over time, and explores the relationship between social housing, family circumstances, and experiences for the children when they reached adulthood.

