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Moving to a better place? Residential mobility among families with young children in the Millennium Cohort Study

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Abstract

This paper assesses how far residential moves can result in improvement or deterioration of the housing and neighbourhood circumstances for families with young children. It uses data from the UK Millennium Cohort Study concentrating on the time between infancy and age 5, 2001 to 2006. First, we ask which families moved home and in what circumstances. We then examine how moving changed several aspects of housing: space standards, damp problems, and tenure. We show that the majority of moves resulted in improvements to housing conditions, especially in reducing overcrowding. We also consider neighbourhood circumstances, proxied by a measure of local poverty at small-area level. Movers generally ended up in neighbourhoods with lower levels of poverty, or no worse, but almost one fifth of moves were downward or remained in the 30 percent poorest areas. We ask whether locating in an area with more local poverty may help achieve a larger home. There is evidence of such a trade-off—1 in 5 families moved to a larger home, which was either in a poorer area than before or remained in the 30 percent poorest areas. We conclude by showing how the path of upward housing mobility, while numerically dominant, was far less common among families with relatively low resources and whose moves were attendant on partnership changes. For them, moves often result in smaller homes in poorer areas.

KEYWORDS

cohort studies, early childhood, housing quality, neighbourhood poverty, residential mobility

1 | INTRODUCTION

Moving home is a common experience for families with young children. Forming a family often involves a change of residence as adults set up together, enter parenthood, and have more children. In these early stages, parents may move to more spacious accommodation or to an area considered better for children. Internal migration estimates for England and Wales indicate that, apart from young adults around age 20 moving out of the parental home, mobility rates are highest among children under 5 and adults between ages 25 and 35 (Champion, 2005).

But this does not mean that all moves are similar. The classic residential mobility literature framed moves as an optimal response to advance in the life cycle with families moving upwards on the housing ladder and the neighbourhood hierarchy (Rossi, 1955). This literature was, as Clark, van Ham, and Coulter (2014) put it, "infused with the notion that

we move to improve." But as divorce and separation rates increased in the 1980s, studies of mobility highlighted how these disruptive events tend to lead to downward mobility—out of home ownership, to smaller homes, or more disadvantaged neighbourhoods (Dieleman & Schouw, 1989; Feijten, 2005; Feijten & van Ham, 2010; Sullivan, 1986). Likewise, at the other end of the life course, older people often move out of home ownership or to smaller dwellings, which better suit their needs (Herbers, Mulder, & Mòdenes, 2014; Hooimeijer, Clark, & Dieleman, 1986). There is also evidence that newly formed families are increasingly less likely to experience smooth housing career progression (Salvi del Piero, Adema, Ferraro, & Frey, 2016). In the current UK context, high house prices and tight mortgage lending are restricting moves into home ownership that young families might have expected in previous generations. At the same time, insecurity in the private rental sector and changes to social security (such as restrictions on housing benefit payments for private sector tenants and the

"spare room subsidy" for social housing tenants) may increase the likelihood of downward moves as people seek smaller or cheaper accommodation. Thus, diverse life events, different social and economic conditions as well as distinct policy regimes interact to produce opportunities for both relatively advantageous and disadvantageous moves, as recently explored by Lupton (2016).

This paper examines the residential outcomes of relocation among families with young children. The focus on this demographic group is justified not only by their relatively high rate of mobility but also by the significance of early childhood experiences for later outcomes. Research on child development in the United States has shown that neighbourhoods are important in shaping outcomes for children and youth (Leventhal & Brooks-Gunn, 2001; Shonkoff & Phillips, 2000). Children's educational and health outcomes are also influenced by housing conditions (Evans, Saltzman, & Cooperman, 2001; Goux & Maurin, 2005; Harker, 2006). Thus, examining whether families with young children improve their position upon moving furthers understanding of both residential mobility and children's development. Our focus on young children is also pertinent to the intergenerational transmission of (dis)advantage and of its spatial manifestations. Evidence is emerging that neighbourhood disadvantage is transmitted from parents to children. Children living in highly deprived neighbourhoods are more likely to live in similar neighbourhood as adults (van Ham, Hedman, Manley, Coulter, & Östh, 2014). By examining a cohort of children, we delineate the mobility patterns of a specific generation, thus providing a basis for future life-course research into the long-term consequences of housing and neighbourhood experiences early in life.

Our study focuses on the moves of young families in the 2000s, when large-scale evidence was available for Great Britain. There has also been a parallel study of a comparable cohort in the United States (Beck, Buttaro, & Lennon, 2016). The comparison with the United States was of interest partly because its housing system was substantially different at the time from the UK, with higher levels of private renting for young families and much less "housing welfare," although the contemporary British situation could be seen to be heading in a similar direction.

To assess how far moves by young families with a preschool child represent advances or retreats in their housing careers (or neither), this paper presents three sets of analysis. The first asks which families were more likely to move, particularly in relation to events in family formation and employment. Second, we describe movers' trajectories, in terms of the housing space and neighbourhood quality at origin and destination. Third, we investigate for which families moving home leads to gains or losses in housing and neighbourhood quality. The data source is the Millennium Cohort Study, a large-scale longitudinal study of children born in the UK at the beginning of the 2000s. To capture the quality of neighbourhoods between which families may move, we take an objective indicator of neighbourhood poverty and link it to each of the first three rounds of the cohort study, up to when children were age five. Using descriptive statistics, logistic, and multinomial regressions, we document the complexity and diversity of residential mobility in this crucial phase of the life course, at a particular historical juncture.

1.1 | Previous research

Residential mobility is generally seen as a process of adjustment: families move in order to fulfil their housing aspirations and to meet their changing needs (Clark et al., 2014). A number of studies have explored such adjustment processes by adopting a life-course perspective. They examine the interconnections between life-course developments in the realms of education, employment and family formation on the one hand and housing choices on the other in order to understand why people move and the outcomes of such moves.

These studies have shown that events in the family domain such as partnership formation, births, or separation, as well as developments in education and work careers trigger moves. Some studies focus on one or two specific events and subsequent mobility over a short period. For example, Mulder and Wagner (1993) show that marriage and short-distance moves are highly synchronised events. Likewise, there is a two-way relationship between childbearing decisions and housing choices (Kulu & Steele, 2013). In several countries, transitions into home ownership tend to occur in anticipation of childbearing (Mulder, 2006), although tighter housing market conditions make such sequencing increasingly difficult for young couples (Öst, 2012). While timing may differ across countries, people tend to move from smaller homes to bigger ones as family formation progresses (Dieleman, 2001).

There are also possible negative consequences for housing tenure and quality of "negative" life events. Using Dutch data, Feijten (2005) showed that unemployment and marital separation increase the probability of moving out of home ownership and into renting. This downward trajectory was especially marked among women experiencing union dissolution, as their lesser economic resources make it more difficult to sustain home ownership. In British data, Feijten and van Ham (2010) found that when either married or cohabiting couples separated housing quality dropped and particularly so in the case of divorce. While among couples with young children, men are more likely to move out than women (Mulder & Wagner, 2010), the costs of maintaining the joint home on one's own can become unsustainable in the longer run. There are also studies examining a set of events and their joint effect on mobility. For example, Clark (2013) drew on Australian longitudinal data to examine how childbirth, marriage, divorce, and job loss affect mobility decisions as well as the distance moved. His findings pointed to the greater importance of partnership break-up relative to other life events. More generally, unanticipated life events, in the family or employment domains, tend to cause an unexpected need to move (de Groot, Mulder, Das, & Manting, 2011) and, in turn, less advantageous residential changes (Clark, 2016).

There is an established literature concerned with the interconnection between neighbourhood and residential mobility. Some examines the aggregate outcome of residential choices and on how it contributes to the stratification of neighbourhoods (Bailey & Livingston, 2007; Robson, Lymperopoulou, & Rae, 2008). Other studies focus on individuals' and households' mobility decisions placing them within spatial context. This perspective reveals how neighbourhood of origin constrains or triggers mobility. For example, Clark and Huang (2003) found that dissatisfaction with the local area motivated long-distance moves.

There has recently been a shift of scholarly interest from the neighbourhoods people leave to those they enter. Rabe and Taylor (2010) used panel data to model the precursors of mobility and investigate change in neighbourhood quality upon moves in England. They examined several events, such as changes in employment status,

changes of job, arrival of a new baby, or partnership break-up, with the explicit aim of uncovering their differential effect on move outcomes. These life events were found to affect families' moving decisions and the ranking of their destinations on the English Index of Multiple Deprivation. For example, becoming unemployed led to moving to more deprived neighbourhoods, while a new birth was associated with positive neighbourhood change. Clark et al. (2014) traced moves between neighbourhoods in Great Britain. They also used the Indices of Multiple Deprivation (one for each Great Britain country) to measure the level of advantage of small areas and to assess whether residential moves result in area improvements, decline, or no change. There is also research focusing on the location choices of ethnic minority groups, which is connected to the broader theme of ethnic minorities' spatial concentration. For example, studies on the Dutch case revealed the tendency, particularly strong among asylum seekers but also some non-Western minority groups, to move towards or within ethnically segregated neighbourhoods (Schaake, Burgers, & Mulder, 2014; Zorlu, 2009; Zorlu & Mulder, 2008). In contrast to the majority of mobility studies, which tend to examine moves between 2 consecutive years, the finding of intergenerational continuity by van Ham et al. (2014) used Swedish register data over a span of 20 years. They showed that parental neighbourhood is highly predictive of the types of neighbourhood children move to during their adult years, even in a fairly inclusive housing market such as the Sweden's.

Given that larger and better quality homes tend to be located in more affluent areas, studies of residential mobility seldom investigate neighbourhood and housing outcomes together. Yet, research on neighbourhood change suggests that some deprived areas experience in-migration from less deprived areas—the classic pattern of "gentrification" (Robson et al., 2008). For some of these families a downward move in terms of area could entail gains in space. There is also evidence that the opposite may be occurring. Clark, Deurloo, and Dieleman (2006) examined to what extent gains in neighbourhood quality were the by-product of improvements in housing or had, instead, an independent role in families' relocation choices. Their results, based on Dutch data, suggest that neighbourhood improvements were mostly achieved in conjunction with moves to better homes. However, a significant proportion of families moved to better-off areas without any improvement in housing. While the authors focused on improvements only, their findings suggest a possible trade-off between gains in house and neighbourhood quality.

1.2 | The present study

In this paper, we apply a life-course perspective, framing residential mobility as embedded in co-occurring events in other life domains. Like Clark et al. (2006), we are interested in tracing both the housing and neighbourhood change resulting from individual residential mobility. Our analytical approach proceeds in two stages. First, we model the propensity to move in relation to families' resources and constrains, as well as life events. Second, we examine mobility outcomes in relation to the factors affecting mobility, notably events in the family domain, and, in less detail, events occurring in the labour market. We use a one-dimensional indicator of neighbourhood quality based on local poverty rates.

We bring to the literature evidence on families with young children in Great Britain in the early 2000s. We limit our analysis to moves over a relatively short time span, 5 years, and focus on one, large, cohort: children born at the beginning of the Millennium. Our results should form the foundation for future research into the moving trajectories of this cohort as they grow up. We also indirectly contribute to the literature on child development concerning the impact of mobility on children. Our study is similar to that of South, Crowder and Trent (1998), who focused on families with young children living in deprived neighbourhoods. They showed that children of divorcing parents not only moved more often than children in intact families but also moved to poorer neighbourhoods. Children whose co-resident divorced parent married again, however, tended to move to better-off neighbourhoods. While we leave child development outcomes beyond the scope of this paper, our analysis illuminates the diversity of mobility patterns across families. If residential outcomes of mobility vary markedly depending on families' events and circumstances, this has to be integrated in any subsequent analysis of the repercussions of moves on families and children (as is done by Gambaro & Joshi, 2016).

2 | DATA AND DEFINITION OF VARIABLES

We use data from the first three sweeps of the Millennium Cohort Study, a large-scale longitudinal study of children born in the UK between September 2000 and January 2002. Its clustered sample design oversamples areas (electoral wards) with high child poverty, high minority ethnicity (England), and the three smaller countries of the UK. The initial interviews (sweep 1) took place when the cohort members were aged 9 months, in 2001–2002. The second sweep was when the children were aged 3, mostly in 2004, and the third around age 5, mostly during 2006. There have been further follow-ups, not included in the present study. Altogether, 19,244 families have ever participated (including the "New Families" first interviewed at sweep 2). Around 15,000 responded at each of sweeps 2 and 3, not all the same people. For further information, see www.cls.ioe.ac.uk/mcs, Hansen (2014), and Joshi and Fitzsimons (2016).

Our analytical sample includes 13,695 families who participated in the third sweep and who lived in Great Britain at all three sweeps. We exclude Northern Ireland because our measure of area poverty is available for Great Britain only. In our analyses, we use weights taking into account both the complex sampling design and attrition up to the third interview (Ketende, 2008; Plewis, 2007).

For our multivariate analyses, all variables with missing values in the analytic sample were imputed. Item non-response was relatively infrequent: none of the imputed variables was missing for more than 5% of our sample. More importantly, imputation allowed us to retain families who were interviewed at the third sweep but had not participated at either one of sweep 1 or 2. The former are New Families (567 in the analytic sample). The latter come from a substantial group in the original survey who did not respond at sweep 2 but who returned at sweep 3 (1,229 cases in the analytic sample). In a study of residential mobility, this is crucial because both groups were more likely to have moved than families present at all three surveys (Mostafa, 2016; Plewis, Ketende, Joshi, & Hughes, 2008). We logically

deduced information on time-invariant characteristics from sweeps in which the families had participated. For all time-varying variables, imputations were done using a Markov-Chain-Monte-Carlo procedure with 20 imputations in Stata 13. There was a specific procedure for missing information on two key variables—mobility and area of origin—for New Families. These families had been sampled with all the other at sweep 1 but not interviewed until sweep 2, when they were asked when they had moved to their current home. Those whose last move was before the cohort child was 9 months old were classified as "stayers," and their area at sweep 1 was considered to be the same area as at sweep 2. Those who had moved more recently were classified as "movers" (252 cases). We took the area where they had been sampled as the one from which they had moved. By not discarding observations missing at either sweep 1 or 2, as well as using the attrition weights reflecting those absent from sweep 3, we have attempted to minimize the bias from survey loss.

2.1 | Mobility

At the second and third sweeps respondents, usually the cohort child's mother, were asked whether they had moved since the previous interview. We create a binary indicator of mobility, which captures whether or not the family reported any move between sweeps 1 and 3.[1] We do not take into account the nontrivial number of moves occurring in the 9 months between the cohort member's birth and the first sweep, for lack of details on their earlier addresses.

2.2 | Housing variables

The data contain information on various housing characteristics: tenure, type of dwelling, floor, living space, and damp problems. In our analysis we include housing tenure and living space, as they have been shown to matter greatly to housing choice. Additionally we look at damp problems, known to be associated with child health and thus relevant to our sample (Harker, 2006).

Respondents were asked about the arrangement under which they occupied their home. We group their answers as (a) social tenants, which includes both those renting from local authority and housing association; (b) private renters, whether or not they receive housing benefit, a government subsidy towards rent; (c) home owners, including outright owners, those with a mortgage or partly owning and partly renting; and (d) other arrangements, such as sharing with parents or living rent free.

For housing space, we use information on the number of rooms and of people living with respondents to create a binary indicator for overcrowding, defined as more than two people per room (Sabates & Dex, 2015). We also report the average number of rooms per person.[2] Finally, we use information on whether there is "any damp or condensation on the walls," as reported by respondents, creating a binary indicator where "great problems" or "some problems" score 1.

2.3 | Neighbourhood

We assess neighbourhood quality on a proxy measure of the level of income poverty of residents in small areas. In the UK, there is no direct measure of income poverty at a local level. There are local measures of multiple deprivations in all the four countries of the UK, which capture better than a monodimensional poverty measure some of the social-interactive, environmental, geographical, or institutional factors that may be relevant to mobility choices. However, these indices are less suitable for our purposes since their components vary across the four countries and change over time. They are only produced periodically and at different times in different countries. Most importantly, they are standardised and transformed to give additional granularity in the more deprived part of the distribution. This hinders comparability of indices over time and country, as changes of the indices do not represent absolute changes in the underlying numbers (for more detail, see Gambaro, Joshi, Lupton, Fenton, & Lennon, 2015).

We therefore use a measure—the Unadjusted Means-tested Benefit Rate (UMBR)—available for each year between 2001 and 2013 (Fenton, 2013). UMBR is the ratio of claimants of means-tested benefits to the number of households in a small area in Great Britain. Small area is defined on the statistical geography of the 2001 Census: Lower Super Output Area in England and Wales; Datazone in Scotland.[3] The numerator of UMBR is the sum of all claimants of Jobseeker's Allowance, Income Support, Employment and Support Allowance, and Pension Credit (Guarantee Element) in each Lower Super Output Area or Datazone, averaged over the four quarters of each calendar year. The denominator of this ratio is the estimated number of households in the area.[4]

As in any similar study, we confront the difficulty that official boundaries do not necessarily reflect subjective geographies and also that results would likely differ if different boundaries were drawn (the "Modifiable Areal Unit Problem"). UMBR is only available for Lower Super Output Areas and Datazones and depends on a specially constructed intercensal estimate of household numbers, not available at more aggregate level, so testing our findings at different geographies is beyond the scope of this paper. Since Super Output Areas and Datazones are small areas originally constructed in the 2001 Census partly on the basis of social homogeneity (including tenure and dwelling type), there may be less of a problem for this study than for others using larger and more heterogeneous administrative geographies bearing no relation to the topic under study.

We acknowledge the limitations of the UMBR measure as a measure of neighbourhood quality. Unlike multidimensional indices, UMBR concentrates on just one variable: income poverty as reflected in benefit receipts. Neither UMBR nor the indices of multiple deprivation capture subjective views of neighbourhood or aspects of the local community such as its cohesion or ethnic composition. They do not reveal all of the inevitable trade-offs that households face—for

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[1] In separate analysis, we have modelled the number of moves made by each family using a negative binomial model. The predictors of such model are not different from the predictors reported here.

[2] The room total excludes halls, bathrooms, toilets, kitchen, and one living room.

[3] Lower Super Output Areas in England and Wales had a mean population around 1,600 in 2001; Datazones in Scotland, 800.

[4] As explained by Fenton (2013a: pp. 61–62), the number of households is a proxy for benefit units. The use of households rather than individuals is more appropriate when comparing poverty rates across small areas, as they better account for differences in households' size across areas.

example, staying in an area, which feels unsafe or has poor facilities for children because it also has familiarity, kin support, and good transport links. What we term "better" or "worse," refers only to "less or more poverty on the UMBR measure," not to any broader assessment of quality. UMBR has the advantages of being produced annually in a consistent way for Great Britain countries and being a real number for which changes have the same effect on rank position in all parts of the distribution. Although UMBR only measures out-of-work benefits, it correlates well at an area level with receipt of in-work benefits and multiple deprivation (Fenton, 2013; Gambaro, Joshi, Lupton, & Lennon, 2014) and thus, is suitable for tracking micro-spatial changes in poverty occurring during the period examined here (2001–2006). Furthermore, subjective assessments of the quality of local neighbourhoods, reported by parents of the Millennium cohort, broadly corresponded to the hierarchy of neighbourhoods on UMBR (Gambaro et al., 2015).

We link yearly data with our measure of area poverty to the survey data, so that each small area where families are surveyed at sweeps 1 and 3 is linked to its contemporary poverty indicator.[5] We also divide areas into three groups: 30% least poor, 30% poorest, and 40% in the middle. We use cut-offs derived from the distribution of our measure of poverty in all Great Britain small areas, and import such cut-offs into the survey data. Our choice of the lower threshold, essentially an arbitrary round number, has also been used for area-based policies relevant to children, such as the creation of Children's Centres.[6] The first phase of their roll-out focused on establishing centres in the 30 percent most disadvantaged areas in England (National Audit Office, 2006). British academic research has also operationalised a definition of disadvantaged areas by using the indexes of multiple deprivation bottom 30% as threshold, for example, Clark et al. (2014). The sampling scheme for the Millennium Cohort Study took a cut-off for defining disadvantaged wards somewhere around 26% for Great Britain (Plewis, 2007). We take a number of steps to address this arbitrariness in the analysis. First, we classify moves with a change of area poverty just around the cut-off (for example, from an area with 29% poverty to an area with 31% poverty) as entailing no change. Second, we run our analyses using different cut-offs. We use the following three alternative classifications: (a) 35% least poor, 30% middle, and 35% poorest; (b) 25% least poor, 50% middle, and 25% poorest; (c) 10% least poor, 80% middle, and 10% poorest. The first two are used to check the sensitivity of the results to the threshold chosen, and the results remained almost identical. The third set can be thought as dividing areas in those with total absence of poverty, some presence of poverty, and majority prevalence, respectively, as the poorest 10% corresponds to a level of poverty, as measured by UMBR, and above 50%. Results changed as we would expect, with moves to the 10% poorest areas more closely associated with markers of disadvantage. However, given the reduction in number of observations in the extreme categories, coefficients were not always statistically significant. Results from these sensitivity checks are not shown here but available in the online appendix.

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[5]In order to do so, we used the secure access version of the first three waves of the Millennium Cohort Study, which contain the geographical identifiers.

[6]Multipurpose centres offering childcare, health, and employment services for preschool children and families initiated in 2003–2004.

2.4 | Partnership changes

We use information on respondents' partnership status from the birth of the cohort child until the third interview to capture both continuity and events such as break-ups and partnership formation. We distinguish the following six groups: (a) stably coupled, (b) stably single (no partner), (c) from mother with biological father to mother with non-biological father, (d) from single mother to mother with father (whether biological or not), (e) from mother with biological father to single mother, and (f) multiple transitions. Such detail of partnership changes and family structures allows us to explore their potentially different association with residential mobility and its outcomes.

2.5 | Parental employment transitions

We measure changes in employment status at family level. At each sweep, the family is deemed to be in employment if at least one parent is in work. If no parent has a job, be they a single parent or a couple, the family is classified as "workless." Their employment changes over the three surveys are summarized in the following variable: (a) stably employed, (b) stably workless, (c) workless to employed (one transition), (d) employed to workless (one transition), and (e) in and out of work (two or three transitions). We have not attempted to record any further detail of the work histories, such as job changes or types of work, but net family income and mother's highest educational qualification at the first sweep are taken into account separately.

2.6 | Family demographics, health, and economic resources

We also control for other facets of family circumstances. We include variables that distinguish families at different stages in their family building: maternal age, whether the cohort child is first born, and the arrival of a new child by the third sweep. We capture family vulnerabilities and capabilities by including the following: family income; household size; maternal health, depression, education, ethnicity, and whether born abroad. We do not include information on fathers because it is lacking for a large minority of our sample. We also account for geographical region by including 11 regional dummy variables—nine for each English government office region and one each for Scotland and Wales. In addition to housing tenure and the level of poverty of the area at sweep 1, the region indicators help control for the variations in the structure of mobility opportunities.

3 | RESULTS

3.1 | Who are the families that make at least one move?

Table 1 presents the mobility profile of our sample. Between the 9 months and age 5 surveys, 40% moved and 60% did not (in terms of weighted percentages). As expected, moving appears to be a fairly common experience among families with young children. Most—two thirds of the movers (27% of the cohort)—moved once. One in five movers moved twice and only one in eight moved three times or more.

TABLE 1 Home moves between the first 3 sweeps

	N	Weighted %
No move	8190	59.7
Any move	5505	40.3
'Any move' can be broken down into:		
1 Move		26.6
2 Moves		08.7
3+ Moves		05.1
All	13695	100.0

Source: Millennium Cohort Study.

Note. Percentages are weighted for sample design and attrition. The sample size coincides with the number of cases in the analytic sample. We replaced missing information on the number of moves (356) by attributing one move to those reporting moving and zero otherwise, thus, slightly underestimating the number of moves.

We examine the factors associated with mobility using a logistic regression of the probability of making at least one move during the observation period (Table 2). Our main model (Model 1) controls for partnership changes, parental employment transitions, housing tenure and family demographics, health, and economic resources. In a second model, we add three objective indicators related to neighbourhood and housing at sweep 1—whether in the poorest 30% areas, whether overcrowded, and whether had damp problems. The third model, instead, uses subjective indicators—whether the family was satisfied with their neighbourhood and home. The final model (Model 4) included both subjective and objective indicators.

All models find that families experiencing any sort of partnership change, or having a single parent throughout, were significantly more likely to move than intact couples, even when other factors are taken into account. Families with at least one parent employed throughout were not significantly less likely to move than others, once other circumstances are factored in.

Those family characteristics signalling that the family formation process was still ongoing—new births, the cohort child being the first born, and younger age of mother—each showed an independent association with the propensity to move. Few of the features of mother's health made a significant contribution to explanation. The exception is the higher propensity of depressed mothers to move, but these mothers appeared also to be more likely to be dissatisfied with their home and neighbourhood: When these subjective indicators are introduced, the coefficient on depression becomes insignificant. Some markers of socio-economic advantage are also found to be positively associated with moving—families with higher income and better educated mothers had a higher propensity to move.

Among housing and area variables, we find that owner occupiers were the least likely to move, whereas private renters and those sharing accommodation had relatively high mobility, as expected. Social tenants can only move within the tenure if they are allocated another home, which will depend partly on their need (of which overcrowding or being made homeless as a result of a relationships breakdown will be factors) and partly on the availability of suitable homes locally. Thus, not all social housing tenants who need to move would be able to do so, but there is nevertheless a formalised system for registering that current circumstances are not suitable and for moving accordingly.

Families in poor areas were not more likely to move, but those who were dissatisfied with either their area or home tended to move, as one would expect.

In summary, moving appeared to be a feature of families who were growing and had the resources to find a new place. But it was also an event associated with partnership break-ups as well as poor initial housing conditions. Moves occurred under various circumstances. This variety is likely to be reflected in qualities of move, as the next section explores.

3.2 | Are moves associated with better homes and less poor neighbourhoods?

Table 3 shows that among movers, housing conditions were generally better and neighbourhoods averaged less poverty after than before the move. Space standards for moving families improved—from more than 1 out of 10 overcrowded at sweep 1, to less than 1 in 20 at sweep 3. The proportion living in the poorest 30% of areas fell from 34% to 30%. Table 4 reports that almost 60% of movers reached a home, which had at least one more room than before, while 18% moved to fewer rooms. Improvements in area were less common, at least as measured, not counting changes within bands. We consider movers within the top band (30% least poor areas) as maintaining their broad position, while movers within the poorest 30% as "failing" to move to an area with a sufficiently lower level of poverty. We do not of course know whether some of the areas involved may have had unmeasured features making families pleased to move into them. On the basis of area poverty alone, we count 41% of area moves as favourable (Table 5). There were almost as many (39%) whose move was unfavourable, going into a poorer band or failing to get out of the bottom one. Those who remained in the middle band accounted for 21% of the movers. Among those making favourable moves the starting points were fairly evenly spread, whereas among those whose moves were not favourable, almost half were already in the poorest 30%.

Table 6 investigates the proportion of movers achieving a higher number of rooms and lower local poverty. Overall 27% of movers had, by the third sweep, a larger home in a less poor neighbourhood (or stayed in a top-band neighbourhood). Adding to this group those who improved along one dimension without worsening on the other, we get 46%. By contrast, if we look at the bottom right corner of the table, we see that 8% of families moved to homes, which were smaller and in poorer areas. Again, we can add to this group those families who did not manage to improve on either dimension while declining on one of the two. On this basis, moving was unfavourable for 22% of families. Finally, there are families whose moves were favourable on one count but unfavourable on the other. These were mainly families who moved to a larger home located in a poorer area (21%), while fewer (6%) reached a less poor neighbourhood but in a home with fewer rooms. In sum, while gaining upon moving was the most common, there remains a substantial fraction of families for whom moving was unfavourable in these terms—a worsening of housing space, of area, or failing to leave the poorest areas. Note that moves deemed unfavourable when considering area poverty and number of rooms may have nonetheless been favourable in other respects, such as proximity to kin, which are important to respondents but not recorded in the survey.

TABLE 2 Whether the cohort family moved in the first three sweeps: logistic regression estimates

	Model 1	Model 2	Model 3	Model 4
Partnership changes (ref: stably coupled)				
Stably single	1.31* (2.20)	1.39** (2.68)	1.31* (2.16)	1.38* (2.54)
From both natural to other coupled	2.90*** (5.97)	2.97*** (6.01)	2.89*** (5.98)	2.94*** (5.97)
From single to coupled (one transition)	1.50** (3.13)	1.51** (3.13)	1.51** (3.14)	1.52** (3.15)
From both natural to single (one transition)	1.96*** (7.04)	1.96*** (7.09)	1.90*** (6.71)	1.92*** (6.82)
Multiple transitions	1.63*** (4.67)	1.62*** (4.55)	1.56*** (4.12)	1.56*** (4.06)
Parental employment transitions (ref: stable in work)				
Stably workless	1.07 (0.49)	1.04 (0.26)	1.08 (0.52)	1.06 (0.37)
Workless to employed	1.08 (0.66)	1.09 (0.78)	1.08 (0.71)	1.10 (0.87)
Employed to workless	1.03 (0.27)	1.01 (0.07)	1.02 (0.21)	1.01 (0.11)
In and out of work	1.05 (0.51)	1.06 (0.53)	1.08 (0.72)	1.09 (0.75)
Housing and area conditions at MCS1				
Tenure (ref: owners)				
Social housing	1.23* (2.53)	1.07 (0.78)	1.02 (0.24)	0.94 (−0.76)
Private renting	3.63*** (13.77)	3.36*** (12.41)	3.38*** (12.45)	3.23*** (11.65)
Sharers/other	2.71*** (9.27)	2.73*** (9.15)	2.65*** (8.98)	2.66*** (8.87)
Area in poorest 30% (UMBR)		1.15** (2.77)		1.04 (0.76)
Overcrowded		2.00*** (7.73)		1.86*** (6.67)
With damp problems		1.20** (2.79)		1.09 (1.36)
Dissatisfied with area			1.66*** (8.54)	1.66*** (8.49)
Dissatisfied with home			1.69*** (8.22)	1.58*** (7.02)
Family initial vulnerabilities and capabilities				
Family income (MCS1) (log£/week)	1.05 (0.99)	1.10 (1.84)	1.09 (1.54)	1.12* (2.01)
Household size (MCS1)	1.04 (1.84)	1.00 (−0.03)	1.05 (1.87)	1.01 (0.27)
Child has younger sibling (MCS3)	1.34*** (5.35)	1.34*** (5.35)	1.34*** (5.27)	1.34*** (5.32)
Child is oldest sibling (MCS1)	1.39*** (5.60)	1.32*** (4.64)	1.41*** (5.82)	1.34*** (4.94)
Mother's age when child was born (years)	0.95*** (−10.81)	0.95*** (−10.46)	0.95*** (−10.30)	0.95*** (−10.15)
Mothers' highest qualification level (MCS1)	1.08*** (4.37)	1.09*** (4.78)	1.09*** (4.53)	1.09*** (4.77)
Mother depressed (MCS1)	1.15** (2.65)	1.16** (2.74)	1.10 (1.80)	1.11 (1.94)
Mother's general health (MCS1, score 1–3)	0.96 (−1.11)	0.96 (−0.96)	1.00 (0.06)	1.00 (0.02)
Mother's ethnic group (ref: White)				
Indian	0.61* (−2.50)	0.60** (−2.62)	0.62* (−2.39)	0.61* (−2.46)
Pakistani or Bangladeshi	0.59*** (−3.91)	0.55*** (−4.27)	0.59*** (−3.92)	0.57*** (−4.07)
Black	0.72 (−1.77)	0.65* (−2.26)	0.71 (−1.79)	0.66* (−2.10)
Other	0.79 (−1.29)	0.74 (−1.58)	0.77 (−1.35)	0.75 (−1.57)
Mother not born in UK	0.99 (−0.11)	0.98 (−0.18)	0.98 (−0.21)	0.98 (−0.24)
Constant	0.69 (−1.01)	0.58 (−1.46)	0.44* (−2.10)	0.44* (−2.13)
N	13,128	13,128	13,128	13,128
Pseudo R^2	.086	.090	.097	.100

Source: Millennium Cohort Study.

Note. Logistic regression carried out after imputation (mi estimate command). UMBR = Unadjusted Means-tested Benefit Rate.

Figures reported are odds ratio (OR) with t statistics in parentheses, significance levels of OR:

*p < .05,

**p < .01,

***p < .001.

MCS1 and MCS3 indicate the variable was collected at sweeps 1 or 3, respectively. The regression also controls for region at MCS1.

Before investigating which groups of families were more likely to move to larger homes and less poor areas, we look at another aspect of housing, which is central in the literature on housing careers—tenure. Table 7 shows housing tenure at sweeps 1 and 3 among movers. The prevailing pattern was continuity, with 67% of movers maintaining the same tenure. Even within the subgroup of movers home ownership was very common: already at the first sweep, 55% of moving families owned their home, thus confirming previous studies showing that British families aspire to home ownership before having children (Mulder, 2006). Ownership was also the most popular destination

TABLE 3 Housing conditions and area poverty among movers, by sweep

	MCS1	MCS3
Housing conditions		
Home ownership†	55.0	57.4
Overcrowding	11.5	4.5
Average number of rooms	5.1	6.0
Damp problems	15.6	12.0
Area conditions		
In poorest 30% (UMBR)	34.4	30.7
Average level of poverty (UMBR)	22.2	20.9

Source: Millennium Cohort Study.

Note. MCS1 and MCS3 indicate sweeps 1 and 3 of the Millennium Cohort Study, respectively.

Figures reported are percentages unless otherwise stated and are weighted for sample design and attrition.

Percentages and means are significantly different at 1% level, unless marked † which indicates 5% significance.

The sample size is 5,505 and includes imputed values.

TABLE 4 Improvement in living space among movers between the first and third sweeps

	% (weighted)
Larger home	59
Similar size home	23.2
Smaller home	17.8

Source: Millennium Cohort Study.

Note. Figures reported are percentages and are weighted for sample design and attrition.

Improvement in living space is defined on the basis of the comparison of the number of rooms at sweeps 1 and 3. Larger home, if the family has at least one additional room. Similar size home, if the family has the same number of rooms. Smaller home if the family has at least one fewer room. Kitchens, hallways, garage, bathrooms, and living rooms are excluded from the count. The sample size is 5,505 and includes imputed values.

TABLE 5 Improvement in area among movers

	% (weighted)
Better area or top 30%	40.8
Remains in middle 40%	20.5
Worse than before or bottom 30%	38.7

Source: Millennium Cohort Study.

Note. Figures reported are percentages and are weighted for sample design and attrition.

Improvement in area is defined on the basis of the level of poverty of the area at sweep 1 and of poverty at sweep 3. We construct a two identical three fold variable to classify areas at sweeps 1 and 3: top 30% (least poor), mid 40%, and bottom 30% (poorest). The sample size is 5,550 and includes imputed values.

tenure, although families who were already in social housing at the first interview mostly moved within that sector. By contrast, renting and sharing were "transition" tenures: Families moved out of such arrangements to live in either social housing or in their own home, in fairly equal proportion. Finally, it is important to note that 9% of families ceased being home owners, while 11% become owners.

TABLE 6 Improvement in living space and in area among movers

Improvement in area	Better area or top 30%	Remains in middle 40%	Worse than before or bottom 30%	Total
Improvement in living space				
Larger home	26.9	11.6	20.6	59.01
Similar size home	7.8	5.0	10.3	23.15
Smaller home	6.1	3.9	7.9	17.84
Total	40.8	20.5	38.7	100

Source: Millennium Cohort Study.

Note. Figures reported are percentages and are weighted for sample design and attrition.

Improvement in living space is defined on the basis of the comparison of the number of rooms at sweeps 1 and 3. Larger home, if the family has at least one additional room. Similar size home, if the family has the same number of rooms. Smaller home if the family has at least one fewer room. Kitchens, hallways, garage, bathrooms, and living rooms are excluded from the count. Improvement in area is defined on the basis of the level of poverty of the area at sweep 1 and of poverty at sweep 3. We construct a two identical three-fold variable to classify areas at sweeps 1 and 3: top 30% (least poor), mid 40%, and bottom 30% (poorest). The sample size is 5,505 and includes imputed values.

TABLE 7 Housing tenure: transitions among movers

Sweep 3 → Sweep 1 ↓	Social housing	Private renting	Home ownership	Sharing/ other	Total
Social housing	15.4	2.7	3.7	a	a
Private renting	5.0	4.7	4.4	a	a
Home ownership	2.9	4.6	46.3	1.2	a
Sharing/ other	2.9	a	3.1	a	a
Total	a	a	a	a	100

Source: Millennium Cohort Study.

Note. Figures reported are cell percentages and are weighted for sample design and attrition.

[a]Figures cannot be reported when a cell contains too few observations as they could be disclosive.

The sample size is 5,505 and includes imputed values.

3.3 | Which families improve their housing and neighbourhood circumstances by moving?

A series of multivariate logistic regressions was run to understand which family characteristics and events are associated with a battery of outcomes of moves. These include whether, at the destination address, the family was overcrowded, had damp problems, or lived in an area among the poorest 30%. We also look specifically at those families who were not home owners at sweep 1 and explore the factors correlated with achieving ownership. For those who occupied their own home at sweep 1, we investigate the correlates of the opposite transition, losing homeownership. The results are presented in Tables 8 and 9.

TABLE 8 Whether movers were overcrowded, had damp problems, or were in poorest 30% areas at sweep 3: regression estimates

	Overcrowding	Damp problems	In poorest 30% areas
Partnership changes (ref: stably coupled)			
Stably single	0.96 (−0.11)	1.25 (0.92)	1.23 (1.09)
From both natural to other coupled	3.37** (3.30)	1.15 (0.45)	1.54 (1.64)
From single to coupled (one transition)	1.64 (1.52)	1.13 (0.50)	1.65** (3.04)
From both natural to single (one transition)	0.67 (−1.25)	0.92 (−0.42)	1.47* (2.55)
Multiple transitions	1.51 (1.32)	1.21 (1.04)	1.11 (0.69)
Parental employment transitions (ref: stable in work)			
Stably workless	1.51 (1.17)	2.10** (3.09)	2.02** (3.24)
Workless to employed	1.53 (1.30)	1.31 (1.09)	0.90 (−0.61)
Employed to workless	1.96* (2.21)	2.20*** (4.12)	1.24 (1.31)
In and out of work	1.16 (0.46)	1.77** (2.71)	1.25 (1.42)
Housing and area conditions at MCS1			
Tenure (ref: owners)			
Social housing	1.29 (0.99)	0.98 (−0.13)	2.06*** (5.76)
Private renting	1.56 (1.51)	1.21 (1.23)	2.36*** (6.09)
Sharers/other	0.87 (−0.39)	1.09 (0.40)	1.35 (1.60)
Area in poorest 30% (UMBR)	1.30 (1.72)	1.14 (1.02)	3.32*** (10.28)
Overcrowded	1.49* (2.09)	1.01 (0.08)	1.44** (2.89)
With damp problems	1.34 (1.65)	1.74*** (4.93)	1.33* (2.51)
Dissatisfied with area	1.15 (0.80)	1.14 (1.17)	0.98 (−0.19)
Dissatisfied with home	1.17 (0.89)	1.00 (0.04)	1.04 (0.42)
Family initial vulnerabilities and capabilities			
Family income, MCS1 (log£/week)	0.79 (−1.52)	0.78* (−2.38)	0.72*** (−3.88)
Household size (MCS1)	1.22** (3.08)	1.05 (0.94)	1.07 (1.59)
Child has younger sibling (MCS3)	2.50*** (5.99)	1.35** (2.71)	0.98 (−0.27)
Child is oldest sibling (MCS1)	0.86 (−0.80)	0.99 (−0.07)	0.99 (−0.08)
Mother's age when child was born (years)	0.97 (−1.93)	1.00 (−0.20)	0.98** (−2.73)
Mothers' highest qualification level (MCS1)	0.87** (−2.75)	1.10** (2.80)	0.88*** (−4.34)
Mother depressed (MCS1)	1.00 (−0.02)	0.84 (−1.55)	0.99 (−0.11)
Mother's general health (MCS1, score 1–3)	0.98 (−0.18)	0.80** (−2.87)	0.82*** (−3.53)
Mother's ethnic group (ref: White)			
Indian	1.02 (0.04)	0.67 (−1.03)	1.34 (1.03)
Pakistani or Bangladeshi	1.62 (1.32)	1.05 (0.17)	2.87*** (3.57)
Black	2.58** (3.04)	0.73 (−1.40)	3.64*** (4.97)
Other	3.36*** (3.64)	0.82 (−0.64)	1.96* (2.58)
Mother not born in UK	1.22 (0.77)	1.14 (0.74)	0.83 (−0.98)
Constant	0.04** (−2.81)	0.42 (−1.21)	2.51 (1.52)
N	5,505	5,505	5,505
Pseudo R^2	.190	.065	.307

Source: Millennium Cohort Study.

Note. Logistic regression carried out after imputation (mi estimate command). Figures reported are odds ratio (OR) with t statistics in parentheses; significance levels of OR:

*p < .05,

**p < .01,

***p < .001.

Pseudo R^2 is the average of the 10 pseudo R^2 reported in the individual imputed data sets. MCS1 and MCS3 indicate sweeps 1 and 3, respectively. The regression also controls for region at MCS1. Sample includes the families who reported moving address between MCS1 and MCS3.

We start by asking which families were overcrowded after having moved. This was particularly likely where the biological parents had separated and a new partner had arrived. Such a sequence was also strongly associated with moving itself (Table 2). Loss of employment also went with increased chances of being overcrowded upon moving, as were large and growing families. Families who were overcrowded before were more likely to remain so, despite moving.

The second outcome reported in Table 8 is damp. Such problems were more clearly correlated with negative employment events or

TABLE 9 Whether movers became or ceased to be home owners: logistic regression estimates

	Became home owner	Ceased to be home owner
	(1)	(2)
Partnership changes (ref: stably coupled)		
Stably single	0.13*** (−5.38)	5.26*** (3.65)
From both natural to other coupled	0.28* (−1.99)	3.91*** (3.72)
From single to coupled (one transition)	1.14 (0.59)	3.71** (2.64)
From both natural to single (one transition)	0.34*** (−4.26)	7.89*** (9.77)
Multiple transitions	0.49** (−3.34)	2.98*** (3.86)
Parental employment transitions (ref: stable in work)		
Stably workless	0.08*** (−4.25)	3.13 (0.88)
Workless to employed	0.61* (−2.26)	0.66 (−0.55)
Employed to workless	0.16*** (−5.42)	7.78*** (6.57)
In and out of work	0.50*** (−3.40)	4.32*** (4.69)
Housing and area conditions at MCS1		
Tenure (ref: social housing)		
Private renting	1.38* (2.26)	
Sharers/other	2.99*** (5.26)	
Area in bottom 30% UMBR	0.99 (−0.10)	1.04 (0.24)
Overcrowded	0.94 (−0.41)	1.84* (2.01)
With damp problems	0.64* (−2.09)	1.03 (0.10)
Dissatisfied with area	0.98 (−0.14)	1.28 (1.20)
Dissatisfied with home	1.05 (0.38)	0.97 (−0.14)
Family initial vulnerabilities and capabilities		
Family income (MCS1, log£/week)	1.78*** (4.08)	0.62** (−3.02)
Household size (MCS1)	0.93 (−1.28)	1.17 (1.46)
Child has younger sibling (MCS3)	1.19 (1.29)	1.26 (1.51)
Child is oldest sibling (MCS1)	1.07 (0.35)	0.85 (−0.71)
Mother's age when child was born (years)	1.07*** (5.41)	0.95** (−3.16)
Mothers' highest qualification level (MCS1)	1.09 (1.91)	0.96 (−0.60)
Mother depressed (MCS1)	1.00 (−0.02)	0.96 (−0.24)
Mother's general health (MCS1, score 1–3)	1.32** (2.62)	0.93 (−0.57)
Mother's ethnic group (ref: White)		
Indian	3.00 (1.93)	0.24 (−1.46)
Pakistani or Bangladeshi	5.41*** (4.91)	0.34 (−1.75)
Black	2.22* (2.25)	0.74 (−0.53)
Other	1.47 (1.09)	0.69 (−0.79)
Mother not born in UK	0.64 (−1.86)	1.29 (0.88)
Constant	0.01*** (−5.38)	6.09 (1.61)
N	2,781	2,724
Pseudo R^2	.288	.267

Source: Millennium Cohort Study.

Note. Logistic regression carried out after imputation (mi estimate command). UMBR = Unadjusted Means-tested Benefit Rate.

Figures reported are odds ratio (OR) with t statistics in parentheses; significance levels of OR:

*$p < .05$,

**$p < .01$,

***$p < .001$.

Pseudo R^2 is the average of the 10 pseudo R^2 reported in the individual imputed data sets. MCS1 and MCS3 indicate sweeps 1 and 3, respectively. The regressions also control for region at MCS1. Samples in column 1 are movers who were not home owners at MCS1; samples in column 2 are movers who were home owners at MCS1.

markers of social disadvantage, such as low income. Surprisingly, more educated mothers were more likely, after moving, to be in damp homes, all else equal. Again, having damp problems at the first sweep was highly correlated with damp at the new address.

The third column of Table 8 examines the correlates of moving to or within one of the 30% poorest areas. Change in partnerships involving lone parents and repeated worklessness were positively associated with moving to or within areas in the bottom 30%.

Likewise, those who were either in social housing or were renting at the first interview were more likely than home owners to move to the poorest areas. Part of this association is likely to be mediated by housing tenure, particularly social housing, at sweep 3. Income is negatively associated with moving to an area in the bottom 30%. Overall then "unfavourable moves"—those resulting in overcrowding, damp problems, or poor areas—were often associated with stressful partnership changes and/or unfavourable employment events.

Table 9 analyses which families were more likely to become homeowners or cease to own. Lone parents and families with multiple partnership changes were less likely than intact couples to become home owners. But, perhaps more strikingly, all nonintact situations were highly associated with loss of home ownership. Employment transitions were all negatively associated with moving into home ownership. On the other hand, only those employment changes involving loss of employment were associated with loss of ownership. Social tenants were less likely than private renters and sharers to become home owners. This is in part due to the fact that, as evident in the bivariate analysis, social housing as a tenure had more inward than outward moves. Social tenants' moves tended to be within the social housing sector. Note that social tenants may become owners, through schemes such as "right to buy" but this change by definition would not involve a move. Lastly, it is noticeable that movers in all ethnic minorities were more likely to become home owners than White families.

The last step of our analysis returns to the classification of moves presented in Table 6. We are interested in exploring which families were more likely to gain on home space but lose in relation to area poverty and vice versa and which families were more likely to experience either an unfavourable outcome on both dimensions or one without any favourable change on either dimension. To do so, we run a multinomial logistic regression. Our reference group experienced, at worst, no deterioration. It combines those who experienced improvements in either space or neighbourhood without any deterioration in the other, as well as movers who experienced no change. Our set of alternatives represents all the possible outcomes of a move, rather than a subset and as such the assumption of independence from irrelevant alternatives is more likely to hold.[7] Results are presented in Table 10. We consider first the families who were more likely to "trade-off" rather than making a clearly favourable move (shown in light shaded cells on Table 6). These were mostly those who gained housing space but moved into or within poorer areas. They also include those who lost housing space while improving area band or staying within the least poor areas. Lone parents experiencing partnership changes and workless households were more likely than stable couples in employment to trade off. Likewise, renters and sharers were more likely than home owners to experience both partially favourable and unfavourable changes rather than

unambiguously favourable change. Finally, larger families, with lower income, less educated mothers, or of Pakistani and Bangladeshi ethnicity were relatively more likely to benefit only on one dimension, while losing on the other. Results for moves to poorer areas and smaller homes are even starker. All types of partnership change were associated with a higher risk of making such moves; so were private renters relative to home owners. It is noticeable that social tenants were not more likely than home owners to make this type of doubly unfavourable move. This is mainly because moving within the social sector is not so much a matter of choice and is often granted to families who are overcrowded, who then achieve better space standards upon moving. Finally, large and growing families appeared to be more at risk of making an unfavourable move, although for this outcome income does not appear to be independently significant, alongside related variables like employment, housing tenure and education.

4 | DISCUSSION

Our results show that moves among families with young children in the early years of the 21st century were not necessarily on the path of upward progress. There were "good moves" as well as "bad moves." On our criteria, 59% of movers gained space; 18% lost space. Just over 4 in 10 movers were favourable in terms of neighbourhood, while just under 4 in 10 were unfavourable. While the typical family moved to a large home or a less poor neighbourhood, a fairly large proportion of families did neither. Moves, which were unfavourable in both area and housing space, did occur to a disadvantaged minority, around eight percent. But there were also a considerable minority of moves where a loss of housing space was compensated by a move to a less poor area or where a less poor area was achieved at the expense of fewer rooms. Evidence that families in need of space move to less advantaged neighbourhood is not new. Gentrification processes as described already in the 1960s involved (in the case of the UK) large downgraded Victorian houses lodging multiple families being becoming single occupancy homes for the middle classes. Another recent trend documented by Fenton, Lupton, Arrundale, and Tunstall (2013) is the migration of poor households with children from Inner to Outer London and the concomitant increase in deprivation rates in the latter areas.

Our results also indicate that families experiencing partnership changes or employment loss were far less likely to experience what we deem favourable moves than stable families in employment. This finding reinforces the existing evidence on downwards moving trajectories following separations or job losses. Also, in line with previous literature is the finding that private renters were more likely to move and to experience unfavourable moves. It is especially notable that while the majority of movers in our sample were homeowners, in recent years the proportion of families with children in the private rented sector has doubled (Social Mobility and Child Poverty Commission, 2013: 88). As partnerships and employment become less stable, and as the position of young families on the housing market has weakened in the years after those studied here (Lupton, 2016), we should expect more downward residential mobility.

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[7]On our dataset, which was set up to account for the survey design (stata command: `svy`) and multiple imputed data (stata command: `mi estimate`), it was not possible to compute a Small-Hsiao test to check whether the model violates the independence of irrelevant assumptions. Instead, we ran separate logistic regressions for each pair of outcomes, and checked that the thrust of the results did not change.

TABLE 10 Improvement in living space and in area among movers: multilogit regression, relative to those who improved on both area and living space or remained constant on both

	Gaining on living space but declining on area or vice versa	Declining on living space or on area or on both
Partnership change (ref: stably coupled)		
Stably single	0.85 (−0.82)	2.38*** (4.05)
From both natural to other coupled	1.66 (1.84)	2.84*** (4.07)
From single to coupled	1.27 (1.42)	2.24*** (4.75)
From both natural to single	1.44* (2.16)	3.41*** (7.29)
Multiple transitions	1.03 (0.20)	1.71** (3.22)
Parental employment transitions (ref: stable in work)		
Stably workless	2.86*** (4.51)	1.72* (2.18)
Workless to employed	1.36 (1.48)	1.36 (1.49)
Employed to workless	1.27 (1.36)	1.46* (2.11)
In and out of work (2 or 3 trn)	1.35 (1.71)	1.35 (1.78)
Housing and area conditions at MCS1		
Tenure (ref: owners)		
Social housing	1.42** (2.68)	1.30 (1.59)
Renting	1.73*** (4.08)	2.29*** (5.06)
Sharers/other	1.78** (3.07)	3.08*** (5.27)
Damp/condensation	1.08 (0.72)	1.23 (1.63)
Dissatisfied with area	1.03 (0.30)	1.00 (0.04)
Dissatisfied with home	1.12 (1.14)	0.78* (−2.04)
Family individual vulnerabilities and capabilities		
Family income (MCS1, log£/week)	0.92 (−0.91)	0.89 (−1.20)
Household size (MCS1)	1.08 (1.55)	1.32*** (5.47)
Child has younger sibling (MCS3)	1.07 (0.79)	0.74** (−2.89)
Child is the oldest sibling (MCS1)	0.93 (−0.68)	1.30* (2.13)
Mother's age when the child was born (years)	0.99 (−1.18)	0.98 (−1.97)
Mother's highest qualification level (MCS1)	0.90*** (−3.47)	0.90** (−3.06)
Mother depressed (MCS1)	1.05 (0.49)	1.07 (0.59)
Mother's general health (MCS1, score 1–3)	0.93 (−1.31)	0.80** (−3.04)
Mother's ethnic group (ref: White)		
Indian	0.83 (−0.58)	0.78 (−0.70)
Pakistani or Bangladeshi	2.53*** (3.46)	3.57*** (3.88)
Black	2.60** (3.30)	2.95*** (3.58)
Other	1.48 (1.69)	1.98* (2.50)
Mother not born in UK	0.97 (−0.15)	0.82 (−1.07)
Constant	1.01 (0.01)	0.51 (−1.04)
N	5,505	
Pseudo R^2	.118	

Source: Millennium Cohort Study.

Note. Multilogit regression carried out after imputation (mi estimate command).

Figures reported are relative risk ratios (RRR) with t statistics in parentheses; significance level of RRR:

*p < .05,

**p < .01,

***p < .001.

Pseudo R^2 is the average of the 10 pseudo R^2 reported in the individual imputed data sets. MCS1 and MCS3 indicate sweeps 1 and 3, respectively. The regression also controls for region at MCS1. Sample includes the families who reported moving address between MCS1 and MCS3.

The distinction between types of moves helps uncover divergent mobility patterns. It has however some limitations. In order to explore changes in housing and neighbourhood simultaneously, we grouped neighbourhoods into three broadbands according to their level of poverty. While this categorisation is well-suited to be combined with a similar variable on changes in number of rooms, it clearly entails some loss of information on the neighbourhood itself. More importantly, our measure of neighbourhood quality reflects the level of poverty of small

statistical areas in Great Britain. As such, it may not capture the neighbourhood characteristics relevant and attractive to the families under study, for example, the familiarity of the home area or the availability of services for children in the locality (Kearns & Parkinson, 2001). Future research could seek to construct a more elaborate measure of neighbourhood quality, which can be combined with indicators of housing quality. Indeed, as this paper shows, the two dimensions do not necessarily overlap and may be in fact mutually exclusive for some families. There is therefore a research need for the simultaneous analysis of families' destinations in relation to both housing and neighbourhood to investigate important trade-offs families face when they move.

A second limitation of our approach is that it focuses exclusively on actual moves. It does not consider those families who would like to move but lack the opportunities and resources to do so. Our data did not cover the decision-making process preceding moves, so we could not address this concern. Yet, as Coulter, van Ham and Findlay (2016) argue, immobility needs to be included in any analysis of mobility patterns, as immobility too can be a response to constraints. Even when they do not want to move, some families may be able to maintain their location only by giving up on other essential spending (Lupton, 2016), thus facing unfavourable trade-offs similar to the ones experienced by the families moving under duress.

5 | CONCLUSIONS

This paper has sought to enrich understanding of residential mobility, focusing on a specific demographic group, families with young children. It has explored the drivers and outcomes of their home moves, adopting a life-course perspective. In line with much of the residential mobility literature, we have conceptualised moves as embedded into a complex set of co-occurring life events. While our analysis cannot establish the reasons behind the moves, nor the exact time ordering of events, it shows that it is important to account for the circumstances under which moves occur, as they influence the type of moves achieved.

Our first contribution to the residential mobility literature is to differentiate types of moves, distinguishing destinations of moves in relation to both the housing and neighbourhood gains or losses achieved. We analyse mobility and its type taking simultaneously into account events occurring in both employment and family domains, as well as families' resources and capabilities. This gives a rich picture of a varied pattern of mobility among young families. Arguably, this framework is able to address the reality of families whose moves are very constrained or precipitated by events and factors outside their control (Clark, 2016; Kleit, Kang, & Scally, 2015).

Our second contribution lies in our focus on a specific life stage—early childhood. Although we consider moves over a relatively short time span (5 years), our analysis provides the foundation for constructing individual mobility biographies over longer period of time, as called for by van Ham et al. (2014). Moreover, the focus on early childhood is helpful insofar as we are interested in the far reaching consequences that the type of housing and neighbourhood experienced by children has on their housing and neighbourhood career as adults and more generally their possible role in the intergenerational transmission of (dis)advantage.

Combining rich longitudinal data with area-based data, as we do here, helps understand the complex linkage between the mobility process, co-occurring events and the geography of mobility. Such contextualised understanding of the mobility process is especially needed when attention is turned to the impact of moves on the people who make them. This, however, is another chapter of the story. Both future research and policy involving young families should be aware that moves may signal both improvements and setbacks in the family life-course.

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