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Right to buy... time to move? Investigating the effect of the right to buy on moving behaviour in the UK

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August 2010

Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor

ΙΖΑ

## Right to Buy... Time to Move? Investigating the Effect of the Right to Buy on Moving Behaviour in the UK

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## ABSTRACT

## Right to Buy... Time to Move? Investigating the Effect of the Right to Buy on Moving Behaviour in the UK

One of the goals of the Right to Buy (RTB) was to stimulate labour migration by removing the debilitating effect of social housing on geographical mobility. This is the first study to examine rigorously whether the Right to Buy legislation did indeed 'free-up' those in social housing who bought their homes. Using longitudinal data from the British Household Panel Survey (BHPS) and panel regression models we show that the probability of a RTB-owner making a long distance move falls between that of social renters and owner occupiers. However, the difference between RTB-owners and neither homeowners nor social renters is significant. Social renters are significantly less likely to move over long distances than traditional owners. The results also suggest that RTB-owners are less likely than traditional owners to move for job related reasons, but more likely than social renters.

JEL Classification: J60, J61, R23

Keywords: Right to Buy, residential mobility, migration, moving reasons, longitudinal data, United Kingdom

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#### **INTRODUCTION**

The Right to Buy (RTB) legislation was introduced in the 1980 Housing Act by Thatcher's Conservative Government elected in 1979. The legal RTB is one of the most significant transformations of the British social housing market. Since it was introduced, over 2.7 million public sector dwellings have been sold to sitting tenants at prices well below market value, transferring wealth from the state to private households (Jones and Murie, 2006). The primary reason for these sales was to stimulate homeownership and to respond to the desire of some tenants to own their properties. A second – and less frequently mentioned – objective of the RTB policy was to stimulate the economy by encouraging the inter-regional mobility of those in the public sector (Boyle, 1997). Tony Durant, MP for the Conservatives said in 1980 "*The exercise of this right will bring about greater mobility. One of the fundamental troubles of our economy in this country is that people find it very difficult to move*" (Hansard, 1980).

Various studies in Europe and the US show that homeowners are less mobile than renters (e.g. Rossi, 1955; Boyle, 1993; Boheim and Taylor, 2002; Helderman et al., 2004; 2006), but these studies often conflate private and public renting. Hughes and McCormick (1981, 1985, 1987) found for the UK that living in public housing, rather than homeownership, is the major tenure-related barrier to inter-regional mobility. Those resident in public housing were more likely to move residence over short distances than those in owneroccupied housing, but much less likely to migrate over long distances and these results were confirmed in a number of later studies (Coleman and Salt, 1992; Boyle, 1995; 1997; 1998; Boyle et al., 1998). This lack of long distance mobility among social renters likely reflects a range of factors. First, social renters may be more likely to work in jobs that are only advertised locally, rather than nationally (Saunders 1985). Second, they have fewer resources to allow a move into private renting or owner occupied housing elsewhere. Third, the administrative controls imposed upon the distribution of public housing make it difficult for tenants to move between local authorities. Public housing policies were designed to house those most in need of public housing, but they prioritised the needs of those from within their own jurisdictions above the needs of those from other local authority areas. These policies therefore enabled high levels of short distance migration between council houses within their areas, as people's circumstances altered, but tended to restrict (long distance) migration between areas (Boyle, 1995).

Thatcher's government was particularly concerned about the lack of job related migration among those in public housing. Neoclassical labour market theory identifies migration as an important instrument for individual career advancement (see Blau & Duncan, 1967; van Ham, 2002; Mulder and van Ham, 2005), and this should have the effect of diminishing regional differences in wages and unemployment (Sjaastad, 1962). Any barriers to people's ability to migrate can therefore harm both the economy and individual careers, making this issue a major policy concern (Boheim and Taylor, 2002; van Ham, 2002). Thus, Thatcher linked the inability to move to national economic performance: *"Frequently investment goes where there are skilled people wanting work. But there must be some mobility. If today people aren't willing to move as their fathers did, the economy can't thrive"* (Thatcher, 1980).

It was imagined that freeing up the housing market by removing the debilitating effect of public housing policies would help to reduce constraints on mobility (Black and Stafford, 1988). Despite this clearly stated goal of the RTB policy, there has been no research investigating whether social renters became more mobile after buying their house. This is the first study to examine rigorously whether the RTB legislation did indeed 'free-up' those in public housing who bought their homes. We examine whether there are differences in the mobility rates, distances moved, and reasons for moving between RTB-owners, social renters, private renters and 'traditional' homeowners.

#### LITERATURE REVIEW

The large volume of houses sold under the RTB since 1980 has dramatically altered the UK housing market (Jones and Murie, 2006). The RTB initially gave only those living in council housing the right to buy their dwelling and was later extended to tenants of other social landlords, such as housing associations. Over the years, changes in policies and regional variations in the policies have incrementally introduced a high level of complexity into the RTB legislation (see Jones and Murie, 2006 for an excellent overview). Over the past 25 years, there have been large fluctuations and regional differences in the number of sales, with peaks in 1982 and 1989. The RTB caused the distribution of dwellings by tenure to change radically: in 1981 57.6% of all dwellings were owner-occupied and by 2003 this had risen to 72.3%. As a result of the RTB and changes in the provision of social housing in the UK, the share of local authority rented dwellings decreased from 29.2% to 13.0% and the share of housing association dwellings increased from 2.2% to 7.4%.

The consequences of the RTB legislation have been studied intensively in the late 1980s and the early 1990s, particularly in relation to the selective nature of sales. The RTB has tended to involve better-off tenants, the more desirable properties, in the more desirable areas. More specifically, during the early years of the RTB, the majority of tenant purchasers were middle- to old-aged married couples with non-dependent children (Forrest and Murie, 1988). They also tended to be from higher social classes with white collar, skilled or semiskilled occupations (Williams et al., 1987), with at least one and often two earners in the household (Kerr, 1988; Lynn, 1991; Forrest and Murie, 1984a, 1984b; Jones and Murie, 2006). Almost half of the buyers had been tenants for 20 years or more. Few of these initial RTB purchasers stated that they wished to move on in the near future and many expected to stay in their house for the rest of their lives (Forrest and Murie, 1984a; 1984b; Foulis, 1985). A survey by James et al. (1991) suggested that the RTB option was used by many tenants to secure their future in an area, rather than as a means of escape from 'welfare' housing or, indeed, as a means of enabling future mobility. It is now well recognized that a combination of factors has created an increased residualisation and stigmatization of the remaining council sector, has led to a shortage of social housing for relets in some regions, and has left a concentration of social housing in poor quality unpopular estates (Burrows, 1999; Forrest and Murie, 1988, 1990; Pawson and Bramley, 2000; Jones and Murie, 1999).

Those suggesting that tenants who bought their dwelling under the RTB might be among the least mobile council tenants cast doubts over the supposition that the sale of council housing to existing tenants would increase working class mobility (Boyle, 1995; Diets and Haurin, 2003). Thus, it was entirely possible that the barriers to mobility caused by mechanisms to allocate social housing might simply be replaced by the barriers to mobility which arise from homeownership (see Forrest, 1987; Oswald, 1999; Nickell, 1998; Van Ommeren et al., 2000 on homeownership). Mobility of homeowners is strongly dependent on booms and busts in the housing market (Forrest and Murie, 1992) and regional house price differentials. Hamnett (1992) suggested that high prices in the South East were likely to be a more important factor overall in restricting labour mobility than council policies. Besides these general barriers to mobility, those who bought their house under the RTB might in addition find it difficult to find a buyer for their property. Although the dwellings sold under the RTB were among the best in the social sector, the quality of these dwellings and the neighbourhoods they are in is often poor compared to owner-occupied housing.

Perhaps surprisingly, then, there has been no detailed research on the effect of the RTB on migration in the UK. Given that the legislation was first implemented around 30 years ago and continues to today, although admittedly at a much reduced rate, it is an appropriate time to examine how migration rates have been influenced over the period and whether the policy did indeed encourage mobility as was anticipated. If the RTB indeed stimulated inter-regional mobility, we would expect those who bought their house as sitting tenants to be more mobile over long distances than those who remained in social housing. On the other hand, selective sorting into the RTB programme of tenants with the strongest desire to stay put, might cause those who bought their house to be the least mobile. In any case, we should expect low mobility in the first years after sitting tenants bought their house because anti-speculation penalties applied if households moved in the first 3 to 5 years. It is somewhat ironic that a policy partly designed to encourage mobility included a clause to discourage moves at the same time. We should also expect a drop in short distance mobility of those who bought under the RTB, compared to council tenants, because they now face the same barriers to mobility as traditional homeowners. We might also find regional differences in the effect of the RTB on migration as regional differences in the supply and cost of housing are known to have an effect on interregional migration (Dieleman, 2001).

#### **DATA AND METHODS**

We used data from the British Household Panel Survey (BHPS) which is a nationally representative sample of 5,500 households (10,300 interviewed individuals) drawn in 1991 from 250 areas in Great Britain. Additional booster samples of 1,500 households for Scotland and Wales and 2,000 households for Northern Ireland were added to the main sample in 1999 and 2001 respectively, resulting in a total sample size of around 10,000 households. In the BHPS the same individuals are re-interviewed each successive year on many topics. For each wave, information was available on actual moving behaviour, reasons for moving, the region in which people live, and individual and household characteristics. A potential problem when studying migration with panel data is that those who move are more likely to leave the panel compared to those who stay. Buck (2000) has shown that although this problem is present in the BHPS, its effect on the study of migration is limited because migrant attrition is relatively small.

We created a household-year file, rather than a person-year file, as we were interested in the movement of households, rather than the movement of single individuals. Households including one person were given the characteristics of the individual making up the household. For couple households the situation was more complicated. Because the household reference person in the BHPS is not constant over time (even if household composition does not change), and is biased towards males, a random person was selected from couples for the first year that they were in the BHPS, resulting in 101,206 household year records. We identified RTB-owners in two different ways. For the first wave (Wave A, 1991) we used the question "At the time you bought this house/flat were you already living here as a tenant?" If yes and the vendor was a social landlord, such as a local authority or a housing association, we assumed that respondents had bought their house/flat under the RTB. For subsequent waves (Wave B to O, 1992 onwards) we identified RTB-owners by observing tenure change for non-movers. If tenure changed from social renter to homeowner without a move respondents were identified as sitting tenants who became RTB-owners. This exercise resulted in a total of 4,430 RTB-owner years, or 4.45 percent of all household years.

The main dependent variable indicates whether a household has not moved, moved over short distance, or moved over long distance between two interview years. We defined long distance moves as moves over 35 kilometres. We also tried alternative specifications such as 40 and 50 kilometres, with little change to our modelling results. 35 Kilometres can be regarded as long distance because for most people this moves them out of their daily activity space (van Ham, 2002). We had a concern that moves caused by union dissolution would bias the outcomes of our models if the rate of union dissolution varied between tenures. This appeared to be the case in our data: RTB-owners were much less likely to split up than traditional owners or social renters. When separation/divorce occurred the household was removed from the sample so that moves resulting from separations were not counted. In the BHPS moves were recorded in 6.6% of the household-years (this is lower than average population mobility due to the removal of moves associated with separation/divorce).

As expected, of all household years in the data, private renters (23.9% of household years with a recorded move) and 'other' renters (16.8%) moved most often, followed by social renters (7.2%). Traditional owners (5.1% of household-years) and RTB-owners (3.6%) moved the least. Only 14.6% of moves in the BHPS are over long distances. Social renters moved the least over long distance (6.4% of moves), followed by private renters (11.8%), RTB-owners (11.9%), traditional owners (18.7%) and 'other' renters (25.6%). We identified only 137 moves by RTB-owners in the BHPS data.

We used panel logistic regression to model the probability of moving. We estimated two sets of models. In the first set the dependent variable indicated whether the household moved over short distance (1) versus did not move (0). In the second set of models the dependent variable indicated whether the household moved over long distance (1) versus did not move (0). We decided not to use a multinomial logistic regression model because theoretically the risks of moving over short or long distance are not competing risks.

The independent variables in our mobility models were lagged by one year (i.e., we took the characteristics of the household in the year prior to the move because conceptually, pre-move characteristics should be better predictors of moving than post-move characteristics). The independent variables used were: age of oldest partner in the household; tenure; economic activity in five categories (single employed, single non-employed, couple both employed, couple non-employed, couple employed/non-employed); highest educational qualification in household; log of household income (corrected for inflation using ONS inflators); self-reported health based on daily activities among those in the household; room stress based on the number of rooms and the size of the household; age of the youngest child in the household. We also added three SAR-area level ecological variables to the BHPS dataset: median and mean house prices; percentage social renting; and working age unemployment rates. See Table 1 for summary statistics of the main variables.

#### <<<TABLE 1 about here>>>

There are a range of selection issues which might bias the outcomes of our models. We set out to use formal statistics to control for selection bias, but the number of RTB-owners in our data was very low, and there were too many selection mechanisms potentially relevant simultaneously (selection into social housing, into the RTB, out of the RTB), which were impossible to disentangle. We therefore focused on the most important selection issue, which is structural to the BHPS data: differences between respondents who were already RTBowners at the start of the panel (1991) and those who became RTB-owners during the panel.

As indicated above, we used two ways to indentify RTB-owners in the BHPS. The problem with those identified in 1991 as RTB-owners (referred to as 'pre 1991 RTB-owners' in the rest of this paper) is that they are a selective sample of stayers: households who bought their house under the RTB and can still be observed in that dwelling in 1991. All those RTB-purchasers who had since moved on to another dwelling before 1991 could no longer be

identified as (former) RTB-owners (most are likely to have moved on to other owneroccupied dwellings and will be counted among the traditional owners). Thus, 'stayers' are over represented among 'pre 1991 RTB-owners' compared to those who became RTBowners during the panel (whom we could follow up, whether they moved or stayed). Including this relatively immobile group may have caused an underestimation of the mobility of RTB-owners. However, because we are dealing with a relatively low number of RTBowners in our sample, we were keen to retain them in the analysis and we therefore ran all our models for four different research populations: 1) all cases (66,622 household years); 2) all cases except pre-1989 RTB-owners (these are more likely to be a selection of stayers than 1989-1991 RTB-owners who bought more recently before the panel started) (64,393 household years); 3) all cases except 'pre 1991 RTB-owners' (for those who became RTBowners during the panel purchase year is known) (63,574 household years); 4) only households in social renting in 1991 some of whom became RTB-owners during the panel (purchase year is known) (15,178 household years). These different samples allow us to provide a more comprehensive assessment of the likely effects of the RTB on migration. In the models using research populations 1 and 2 we also included a dummy variable identifying 'pre-1991 RTB-owners'. We used this dummy variable to assess whether the 'pre-1991 RTBowners' behaved in a different way than those who became RTB-owners during the panel study period.

#### RESULTS

To gain more insight into possible selection bias originating from selective entry into the RTB we first modelled the probability of becoming a RTB-owner. We found that higher income social renters were the most likely to become a RTB-owner (results not shown). Economic activity status also contributed to the probability of becoming a RTB-owner: dual earner couples were the most likely to become RTB-owners, followed by couples with one earner and employed singles, then followed by non-employed couples and non-employed singles. Those with a medium to higher level of education were more likely than those with a low level of education to become RTB-owner. The results show that financially stable and healthy social renters were the most likely to buy their house under the Right to Buy. These findings are consistent with the existing literature. Because the selection mechanism into the RTB is likely not to be independent from the selection mechanism into long distance migration (income, economic activity, education and health all influence long distance migration as well) this might lead us to overestimate the effect of the RTB on long distance mobility.

Table 2 presents the results from a series of panel logistic regression models of the probability to move over short distance (reference category are non-movers). As discussed above, we used four different research populations to gain insight into the extent to which the 'pre 1991 RTB-owners' are a selected group of stayers. We also included a dummy variable identifying 'pre 1991 RTB-owners' in Models 1 and 2, but this variable was not significant. We also ran Models 1 and 2 without the 'pre 1991 RTB dummy' and although the parameter estimates of the main RTB dummy variable changed somewhat, the overall conclusions and significance levels stayed the same.

The main variable of interest in Table 2 is tenure, with traditional owners as the reference category. In Models 1 to 3, social renters, private renters and other renters were significantly more likely to move over short distances than traditional owners. RTB-owners did not differ significantly from traditional owners. Further testing showed that RTB-owners

were significantly different from social renters (p<0.01), providing some indication that once social renters become RTB-owners they behave more like traditional owners. In Model 4, we compared only RTB-owners and social renters; once again RTB-owners were significantly less likely to move over short distances than social renters. The results show that the tenure results were robust over Models 1 to 4, each based on a different sample.

#### <<<TABLE 2 about here>>>

Table 2 also contains a set of control variables and all the results are in line with what we expected based on the residential mobility literature. The probability of moving decreased with increasing age of the oldest household member (Models 1 to 4). With increasing household income the probability of moving decreased (Models 1 to 3). However, for social renters the probability of moving increased with income (Model 4), presumably because higher incomes provide social renters with more opportunities to improve their situation. Singles were more likely to move over short distances than couples, and couples consisting of two non-employed people were the least likely to move (Models 1 to 3). The probability of moving over short distances increased with level of education in all four models while the presence of children over the age of 5 had a negative effect on short distance moves (Models 1 to 4). Room stress – defined as the number of rooms per person – had a negative effect on mobility. The more rooms per person, the less likely the household was to move. Having health problems had a positive effect on the probability of moving over short distance. Most of these moves will be associated with finding a dwelling that better fits the health situation of the household. Finally, households with one or more members from non-white ethnic minority groups were less likely to move than all white households, consistent with findings elsewhere (van Ham & Feijten, 2008; van Ham and Clark, 2009).

Table 3 presents a set of four panel logistic regression models of the probability to move over long distance (reference category are non-movers). Again, results are presented for the four different research populations. Also in Table 3 the dummy variable identifying 'pre 1991 RTB-owners' was not significant. The tenure variable shows that social renters were significantly less likely to move over long distances than traditional owners. The signs for the RTB-owner parameters were negative, but insignificant (Models 5 to 7). The findings indicate that also over long distance, RTB-owners behaved more similar to traditional owners than to social renters, although a more detailed test showed that the parameters of RTBowners and social renters were not significantly different. This indicates that over long distances, the moving behaviour of RTB-owners was in between the behaviours of traditional owners and social renters. In Model 8, only including social renters and during-panel-RTBowners, RTB-owners were also not found to be different from social renters in their long distance moving behaviour. The effects of the control variables in the models of long distance were similar in direction to those in the models of short distance mobility. The main differences were that non-employed singles were the least likely to move over long distance, and households with children under the age of 5 were less likely to move than other households (with and without children). In the long distance models, the effects of ethnicity and health were not significant.

#### <<<TABLE 3 about here>>>

We also ran models (results not shown) which took into account the fact that RTB-owners – who bought their dwellings with considerable discounts (up to 70%) – faced a penalty if they moved within 3-5 years (penalty periods differed over time and geographically) after buying their house as sitting tenants. We excluded all moves within the first few years after

becoming a RTB-owner or after the last move (for other tenures) to make RTB-owners and others tenures more comparable. These models showed similar outcomes to those presented in Tables 2 and 3.

We also looked at the regional differences in short and long distance mobility rates (results not shown). We followed two routes to investigate potential regional differences in mobility. First, we included interaction terms between region dummies (10 regions based on government office regions) and tenure dummies in the models. Second, we added regional characteristics to the household-year file using special licence Local Authority District (LAD) data. We hypothesised that in regions with high house prices, RTB-owners would be more likely to move over longer distances (to other regions where houses were relatively cheaper). We also hypothesised that in regions with high levels of unemployment RTBowners would be more likely to move over longer distances (to regions with better employment prospects). The models including interaction effects between region and tenure did not change the effects of tenure on short and long distance moves. Most of the region dummies were not significant and we found no specific effects for RTB-owners. Londoners were significantly less likely to move short distances than people resident in the reference category of 'rest of South East'. Those from Wales, Scotland and Northern Ireland were the least likely to move over short distances. The least likely to move over long distances were those from the West Midlands, the North West and Tyne and Wear and the rest of the North East. To model the effects of regional characteristics on mobility behaviour we used multilevel models. House prices and unemployment levels had almost no effect on the tenure parameters. As expected, the higher house prices were in a region, the more likely people were to move out over a long distance (small effect). We found no specific effects for RTBowners.

Finally, we explored moving reasons by tenure. Table 4 shows that among movers, other renters were the most likely to move for employment reasons (35.2%), followed by private renters (12.3%), traditional owners (10.0%), RTB-owners (7.5%) and social renters (4.8%). RTB-owners once again fell between traditional owners and social renters. A Chi square test showed that the differences between the tenure groups are significant (p=0.000). Table 5 gives an overview of moving reasons based on another BHPS question with more categories. We recoded the original 35 moving reasons in the BHPS into fewer categories using the criteria of Boheim & Taylor (2002). Overall, 'housing related issues' were the most important reason for moving (almost 40% of moves) for all tenures, followed by 'neighbourhood related issues' (13.7%). RTB-owners were more likely to move for neighbourhood related reasons (23.3%) than those in any other tenure, including social renters (18.7%). This is surprising, as we know that the uptake of the RTB was more common among those living in better properties in more popular neighbourhoods. RTBowners also gave health related reasons as an important reason for moves (12.8%), second only to social renters (16.4%). This could reflect the health status of those in social housing and/or the fact that RTB-owners were relatively old compared to those in other tenures. RTBowners were the least likely to move for housing-related issues (30.2%), probably reflecting that most of them bought their dwelling while they were reasonably satisfied with it.

<<<TABLE 4 about here>>>

<<<TABLE 5 about here>>>

#### CONCLUSION

This is the first study to use complex longitudinal data to examine rigorously whether the RTB legislation did indeed 'free-up' those in public housing who bought their homes. We used the BHPS in an innovative way to identify those who became RTB-owners during the panel. The number of RTB-owners found in the data was relatively small, thereby pushing the limits of what can be done with the data. The BHPS was nevertheless the best data available for this study as it uniquely allowed us to follow RTB-owners over time.

Our results demonstrated that RTB-owners were about as likely to move over short distances as were traditional homeowners, but less likely than social renters. So after buying their house, RTB-owners showed more resemblance with the group they joined (homeowners) than the group they had departed (social renters). There are two opposing explanations for this finding: either RTB-owners are relatively satisfied with their dwelling, so there is no need for moving, or they are even more 'trapped' in their dwelling than they were before they bought it, because now they face the same moving restrictions as traditional homeowners. Homeowners are known to be less mobile than (social) renters over short distances because they live in better dwellings and because the costs associated with moving are much higher for owners than for renters.

Our results also demonstrate that RTB-owners are slightly more likely to move over long distances than social renters, and slightly less likely than traditional homeowners, although the differences were not significant. We have also shown that the uptake of the RTB was very selective, with mainly employed tenants with relatively high incomes and no health problems using the RTB. This suggests that RTB-owners have certain measured and unmeasured characteristics which would have made them more likely to move over long distance anyway. The combination of possible selection bias, and the lack of statistically significant differences, lead us to conclude that it is questionable whether the RTB had a causal effect on the mobility behaviour of RTB-owners.

Despite large differences between regional housing markets in the UK, our study did not find any regional differences in the moving behaviour of RTB-owners. A possible cause is the relatively low number of RTB-owners and moves by RTB-owners in our dataset.

Finally, our analyses of moving reasons showed that RTB-owners are less likely than traditional owners to move for job related reasons, but they are more likely to move for job related reasons than social renters. Again, they take a middle position between traditional owners and social renters. RTB-owners were found to be more likely to move for neighbourhood related reasons than those in any other tenure, including social renters. This is surprising since previous research has shown that RTB purchases tended to involve the best properties in the most favoured neighbourhoods. It might be the case that RTB-owners move to nicer neighbourhoods, possibly neighbourhoods with a higher share of owner-occupied dwellings, in order to confirm their new status as homeowners (compare Michelson, 1977). To gain more insight into the role of the neighbourhood in the moving behaviour of RTB-owners, future research should look in more detail at housing satisfaction, moving desires and housing ambitions of RTB-owners.

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		Mean (standard	Minimum /
	Frequency (%)	deviation)	maximum
No move	94.9		
Short distance moves (< 35km)	4.4		
Long distance moves (>= 35km)	0.7		
Pre 1991 RTB dummy	3.6		
Tenure			
Traditional Owner	66.8		
Social Renter	22.0		
RTB-owner	5.1		
Private Renter	5.1		
Renter 'other'	0.9		
Age (in years)		54.40 (16.33)	16 to 99
HH income (log of income in pounds)		4.30 (0.36)	-0.20 to 5.91
Household			
Single-Employed	11.8		
Single - Non-employed	24.3		
Couple - Both Employed	32.2		
Couple - Both Non-employed	15.9		
Couple - Mixed	15.7		
Education			
No & Low Qualification	50.3		
Med Qualification (A Levels)	36.3		
High Qualification (degree)	13.4		
Children			
No children	70.3		
Youngest aged 0-4	9.5		
Youngest aged 5+	20.2		
Room stress (rooms/person) cut at 8		2.22 (1.22)	0.20 to 8
Health			
No limitations	72.9		
Health limits daily activities	27.1		
Ethnicity			
All HH members white ethnic	96.8		
HH member of non-white origin	3.2		
Regional characteristics for Local Author	orities		
% Social Renting		22.30 (8.90)	5.12 to 69.17
% Unemployed (working age)		7.29 (3.09)	1.00 to 28.01
Mean House Prices		83k (40,457.09)	33k to 411k

## **Table 1**Variable summary statistics (unit of analysis: household years)

*Source:* Author's calculations using BHPS data for both short and long distance moves combined (n=67,123), with the exception of the last 3 variables which were based on n=66,876.

Madala Madala Madala Madala Madala Madala										
			Model 2		Model 3		Model 4			
	Everyon	e	Everyone		Everyone		Social			
			less pre-1989		less pre 1991		Renters &			
			RTB-ow	ners	RTB-ow	/ners	RIB-owners			
	n=66,62	2	n=64,393		n=63,5/4		n=15,17	8		
	HHs=10	,260	HHs=10	,028	HHs=9,937		HHs=2,963			
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.		
Fixed part										
Pre 1991 RTB dummy	0.276		0.369							
Tenure										
Traditional owner (ref, models 1-3)										
Social Renter (ref model 4)	0.406	***	0.402	***	0.400	***				
RTB-owner	-0.174		-0.171		-0.171		-0.515	***		
Private Renter	1.557	***	1.556	***	1.556	***				
Renter 'other'	1.157	***	1.172	***	1.174	***				
Age	-0.114	***	-0.115	***	-0.116	***	-0.094	***		
Age square	0.001	***	0.001	***	0.001	***	0.001	***		
Household income	0.053		0.076		0.076		-0.372	***		
Household										
Single-Employed (ref)										
Single - Non-employed	0.032		0.066		0.069		0.251	*		
Couple - Both Employed	-0.222	***	-0.203	***	-0.200	***	0.038			
Couple - Both Non-employed	-0.345	***	-0.345	***	-0.358	***	0.066			
Couple - Mixed	-0.275	***	-0.259	***	-0.250	***	-0.204			
Education										
No & Low (ref)										
Med Qualification (A Levels)	0.161	***	0.161	***	0.161	***	0.265	***		
High Qualification (degree)	0.299	***	0.297	***	0.296	***	0.271			
Children										
No children (ref)										
Youngest aged 0-4	0.008		0.003		0.006		0.000			
Youngest aged 5+	-0.353	***	-0.357	***	-0.353	***	-0.265	**		
Room stress	-0.132	***	-0.138	***	-0.140	***	-0.219	***		
Health										
No limitations (ref)										
Health limits daily activities	0.196	***	0.192	***	0.196	***	0.095			
Ethnicity										
All white ethnic (ref)										
One or more non-white HH members	-0.167		-0.152		-0.148		-0.356			
Constant	0.234		0.161		0.183		1.750	***		
Random part										
variance	0.35		0.35		0.36		0.31			
Intraclass correlation	9.6%		9.6%		9.8%		8.6%			
Log likelihood	-10890.1	l	-10623.1	-10623.1		-10497.3		-2751.73		
*=p<0.10; **=p<0.05; ***=p<0.01										

# **Table 2**Probability of short distance move (reference no move) using panel logisticregression for 4 different research populations

Source: Author's calculations using data from the BHPS.

Model 5 Model 7 Model 7 Model 7										
	Model 5		Model 6		Model /		Model 8			
	Everyone		Everyone		Everyone		Social	0		
			less pre-1989		less pre 1991		Renters &			
	<i>c</i> 1 1 0	0	RTB-owners		RTB-owners		RTB-owners			
	n=64,19	9	n=62,023		n=61,229		n=14,512			
	HHs=10	,221	HHs=9,990		HHs=9,899		HHs=2,896			
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.		
Fixed part										
Pre 1991 RTB dummy	-0.145		0.528							
Tenure										
Traditional owner (ref, models 1-3)										
Social Renter (ref model 4)	-0.658	***	-0.645	***	-0.646	***				
RTB-owner	-0.161		-0.146		-0.148		0.618			
Private Renter	0.985	***	0.994	***	0.994	***				
Renter 'other'	1.268	***	1.283	***	1.279	***				
Age	-0.120	***	-0.120	***	-0.122	***	-0.155	**		
Age square	0.001	***	0.001	***	0.001	***	0.001			
Household income	0.301		0.336	*	0.325		0.786			
Household										
Single-Employed (ref)										
Single - Non-employed	0.385	*	0.371	*	0.359	*	-0.323			
Couple - Both Employed	-0.703	***	-0.724	***	-0.732	***	-1.009			
Couple - Both Non-employed	0.150		0.154		0.141		-0.704			
Couple - Mixed	0.092		0.085		0.088		-0.134			
Education										
No & Low (ref)										
Med Qualification (A Levels)	0.602	***	0.611	***	0.601	***	0.197			
High Qualification (degree)	1.283	***	1.287	***	1.289	***	2.740	***		
Children										
No children (ref)										
Youngest aged 0-4	-0.394	**	-0.409	***	-0.412	***	0.356			
Youngest aged 5+	-0.620	***	-0.682	***	-0.674	***	-0.014			
Room stress	-0.129	***	-0.134	***	-0.133	***	-0.117			
Health										
No limitations (ref)										
Health limits daily activities	-0.181		-0.174		-0.183		0.316			
Ethnicity										
All white ethnic (ref)										
HH member of non-white origin	-0.044		-0.033		-0.030		0.109			
Constant	-3.128	***	-3.252	***	-3.161	***	-6.865	*		
Random part										
variance	1.56		1.53		1.54		5.43			
Intraclass correlation	32.1%		31.7%		31.9%		62.3%			
Log likelihood	-2656.06		-2613.62	2	-2583.14		-307.882			
*-n <0.10; **-n <0.05; ***-n <0.01		-	_010.02	-		-	50			

Table 3	Probability of long distance move (reference no move) using panel logistic
	regression for 4 different research populations

\*=p<0.10; \*\*=p<0.05; \*\*\*=p<0.01 Source: Author's calculations using data from the BHPS.

percentuges)			
Tenure type	Yes	No	Count
Traditional owner	10.01%	89.99%	1,948
Social Renting	4.75%	95.25%	821
Private Renting	12.25%	87.75%	751
RTB-owner	7.45%	92.55%	94
Renting 'other'	35.23%	64.77%	88
Total	9.83%	90.17%	3,702

# **Table 4**Percentages of moves for employment reasons by tenure type at t-1 (rowpercentages)

Pearson Chi-Square: value=93.554, df=4, p=0.000

Source: Author's calculations using data from the BHPS

#### **Table 5**Moving reasons by tenure type at t-1 (row percentages)

The second secon	<u> </u>	<b>F</b> 1	36 4.6	- T 1	<b>T</b> 1 1		11 1.1		0.1	3.7	<b>C</b>
Tenure type	Move in	Family	Move/left	Job	Evicted	Housing	Health	Area	Other	No	Count
	with/split		college							reason	
	from partner									stated	
Traditional owner	6.20	10.48	0.53	6.90	1.93	42.51	4.92	13.26	11.71	1.55	1,870
Social Renting	5.26	9.55	0.00	2.33	7.34	34.15	16.40	18.73	5.75	0.49	817
Private Renting	6.33	7.57	2.06	3.85	14.17	41.95	3.71	8.94	9.22	2.20	727
RTB-owner	4.65	12.79	0.00	3.49	2.33	30.23	12.79	23.26	10.47	0.00	86
Renting 'other'	3.90	7.79	0.00	28.5	12.99	31.17	2.60	3.90	3.90	5.19	77
Total	5.93	9.67	0.70	5.62	5.90	39.95	7.44	13.67	9.64	1.48	3,577

Source: Authors' calculations using data from the BHPS