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The Changing Effect of Home Ownership on Residential Mobility in the Netherlands, 1980-98

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Abstract In most western countries, homeowners are much less likely to change residence than renters are. In the last few decades, the rise in home ownership in the Netherlands has been spectacular. This would imply that the population has become less mobile, which has consequences for the functioning of the housing market – at least, if the relationship between home ownership and residential mobility has not changed. This research addresses the question whether the effect of home ownership on the probability of residential mobility has changed over the last few decades and if so, how. Using data from the 1981-1998 Netherlands Housing Demand surveys and logistic regression models, we find that the difference between homeowners and renters in residential mobility has changed over time. The results indicate a decrease in the effect of home ownership with an interruption in 1984-85. This finding might indicate stability in the effect of home ownership, except for periods of booms or busts on the housing market.

Key Words: home ownership, residential mobility, housing market, The Netherlands

Introduction

According to Rossi (1955), housing tenure is the single most important predictor of residential mobility (see also Mulder, 1993). Indeed, in almost every study that has included tenure as an explanatory factor of residential mobility, homeowners are found to be much less likely to move than renters (Clark & Dieleman, 1996; Dieleman, 2001; Speare et al, 1975; Van Leuvensteijn & Koning, 2000).

In the last few decades, there have been important changes in housing careers in the Netherlands. The rise in home ownership has been spectacular and the moment that people become first time homeowners has shifted within the life course, occurring increasingly at an earlier age (Feijten & Mulder, 2002; Mulder & Wagner, 1998). A constant reluctance by homeowners to move while the share of homeowners in the Netherlands keeps growing can have major implications for the functioning of the housing market, because it might become inert. This inertia might lead to a decrease in access to appropriate housing, particularly for starters on the housing market. The growing share of homeowners, therefore, gives rise to an investigation into changes in the impact of home ownership on residential mobility.

There are reasons for thinking that homeowners' reluctance to move might have diminished as the share of homeowners increased. People might be expected to move more readily between owner-occupied homes as home ownership becomes less exclusive. Furthermore, first time buyers are increasingly younger and without children (Feijten & Mulder, 2002; Mulder & Wagner, 1998). Both the younger age and the longer childfree period imply that a home is bought more often in a stage in the life course with a higher level of residential mobility. While buying a home used to be the start of an immobile period in the housing career, becoming a first-time homeowner might now be the start of a career on the owner-occupied market, after which more residential moves might follow. Since there are more young homeowners, it can therefore be expected that homeowners will be more likely to move and the residential mobility of homeowners and renters will become more similar. This hypothesis, to our knowledge, has not been tested before.

This study addresses the question whether the effect of home ownership on residential mobility changed in the Netherlands in the 1980s and 1990s, and if so, how. We have used individual level data from five Netherlands Housing Demand Surveys (WoningBehoefteOnderzoeken), carried out between 1981 and 1998 by Statistics Netherlands. The combined dataset includes detailed information on individual and household characteristics for almost 200,000 respondents. The effects of home ownership, period, and various control variables on residential mobility were estimated using logistic regression.

Theoretical and contextual background

In order to address this paper's research question, we need to draw a theoretical and contextual background involving three issues. First we need a general theoretical background of residential mobility. From this we can derive expectations of the influence on residential mobility not only of home ownership, but also of other factors. Residential mobility is defined as *residential moves over a short distance: that is, within the daily activity space*. Labour migration and other long-distance moves are disregarded.

Second, we need to zoom in on the difference between homeowners and renters in the probability of making a residential move. And third, we need to discuss the possible changes in this difference over time associated with the growth in home ownership and other changes in the Netherlands housing market. For this third discussion we also need background information about the changing context of home ownership in the Netherlands.

A theoretical background of residential mobility

The classical view of residential mobility is that the decision to change residence can be seen as a function of the household's dissatisfaction with the present housing situation (Browne & Moore, 1970; Speare et al, 1975). According to this literature, people do not in general change residence unless they have a compelling reason to do so.

Later contributions have stressed that reasons for moving need not always relate to dissatisfaction. The life course approach to residential mobility offers a more complete framework within which the reasons for residential mobility can be understood. According to the life course approach, life consists of several domains (household, employment, education, residence) and each domain is associated with a career. An individual's various careers interact; at the household level the careers of the household members are intertwined (Willekens, 1999). Life events such as marriage and childbirth are critical transitions that challenge people to reorganize their lives and their housing situations. When experiencing the life event of family expansion, for example, people might want to move to a larger home, or a home in a safer neighbourhood. Furthermore, life-course careers also provide the resources enhancing the realization of a wish to move and the restrictions hampering residential mobility (Mulder & Hooimeijer, 1999).

Life events do not occur randomly in people's life courses, but are to a large extent structured in life-course stages. There is, therefore, a strong relationship between a person's probability of moving and the stage in the life course (Dieleman, 2001; Dieleman & Mulder, 2002). Age and household composition are of crucial importance in this relationship.

Age is a strong indicator of stage in the life course. The young adult years are especially years of change, accompanied by uncertainty and demands for flexibility (Mulder, 1993). Young people are busy shaping their occupational, household, and housing careers. People are likely, therefore, to make several adjustment moves before settling down in more permanent accommodation.

Household composition is another important indicator of stage in the life course. People with children will be more reluctant to move than people without children, even over short distances; parents are reluctant to make their children change schools (Mulder, 1993). Singles find it far easier to move, because they are not tied to the wishes and daily activity spaces of other household members. Furthermore, singles are likely to move for reasons of marriage or cohabitation, mostly over short distances (Grundy & Fox, 1985).

Financial resources are likely to influence residential mobility, because they are needed to be able to move, and they pay for the new rent or mortgage (Mulder & Hooimeijer, 1999). Financial resources are closely related to the household income and to the level of education of the adult members of the household. A higher level of education means a higher earning potential and a more readily obtained mortgage. Financial resources make a wish to move easier to realize; at the same time, people with more resources are more likely to have already secured satisfactory accommodation and therefore be more likely to be content with their current housing. The relationship between resources and residential mobility may not therefore be straightforward.

Dissatisfaction with the housing quality may arise from a lack of dwelling space (a high *crowding ratio*: the ratio of the number of people to the number of rooms).

Crowding has been shown to be associated with a greater probability of residential mobility (Clark, et al, 2000).

The effect of home ownership on residential mobility

Homeowners are much less likely to move than renters are (Clark & Dieleman, 1996; Dieleman, 2001; Speare et al, 1975; Van Leuvensteijn & Koning, 2000). One of the causes of this difference in residential mobility may be found in the fact that buying a home involves long-term financial and non-financial commitments.

Becoming a homeowner requires a substantial long-term financial commitment, because most people need a mortgage to be able to buy a home. Borrowing such a considerable amount of money ties people down in the sense that they will have to repay the mortgage as well as pay the interest over a long period. The long-term financial commitment and the willingness to carry the risks home ownership involves (the risk of a collapse in the housing market, or of losing income, for example) is not usually embarked on before a stable household has been formed (Feijten & Mulder, 2002; Speare et al, 1975). The transaction costs involved with moving into and from owner-occupied homes form an important aspect of the financial commitment. For the Netherlands, these costs are estimated at 10 percent of the value of the home (including 6 percent for transfer tax). Moving between rental homes does not involve these costs; there are fewer financial barriers to residential mobility for renters than for owners.

The financial commitment that comes with buying a home can be attractive to many people for investment reasons. For most homeowners, their home is their major form of savings (Kendig, 1984) and in most cases the value of an owner-occupied dwelling increases over the years. In the Netherlands, moreover, homeowners enjoy a major fiscal advantage that renters do not have: mortgage interest is tax deductible (Haffner, 2002). Considerations of financial planning and investment might play a role in decisions on residential mobility particularly for people with high incomes. Some might move with the explicit aim of investing in home ownership or releasing equity from an owner-occupied home.

Home ownership also involves non-financial commitments. Owners often make changes to their homes, such as a new kitchen or bathroom, to adjust the home to personal preferences (Rossi, 1955). Such changes will probably make people feel less inclined to move out of that home, even if the costs of the changes could be recouped. Renters make fewer adjustments to their homes, which is why rented homes are often not very distinctive and the number of alternatives for the current dwelling is higher. Other reasons can be put forward for homeowners being more attached to their homes than renters are (Saunders, 1990), and therefore less likely to move. Saunders even goes so far as to argue that the desire for home ownership has to do with cherished and widespread values emphasizing independence, security, and a personal identity: home as a base from which to venture out into the world.

Another non-financial factor that might play a part in explaining the difference between owners and renters with regard to residential mobility is non-financial transaction costs. In contrast with renters, owners not only have to put an effort into finding a suitable alternative to the present home; they also have to sell it. Not everyone accomplishes that in a short time, so there may be a period between buying and selling a home that leaves the unfortunate mover with either two homes or none. In the first case

it means higher costs; in the latter case an extra move is necessary, which incurs extra effort.

Homeowners are also thought to move less than renters because owner-occupied homes are often of higher quality than homes in the rental sector (Speare et al, 1975). This better quality refers not only to the physical characteristics of owner-occupied homes, but also to the attractiveness of the neighbourhood. They are often larger, so that there is more room for family expansion, for instance. The higher quality of their homes decreases the likelihood of owners' dissatisfaction with the housing situation compared with renters, and therefore the necessity to move.

It is possible that the impact of home ownership on residential mobility changes with the stage in the life course. Young, first-time buyers without children may perceive the home they own as a temporary step in their housing career, with more steps in home ownership to follow (once they plan to have children, or once they have saved enough to buy a better home, for example). Couples with children, on the other hand, may be more likely to regard their housing situation as more or less permanent, because they have 'settled down' in the family domain.

Changes in home ownership in the Netherlands and the consequences for the effect of home ownership on residential mobility

The relationship between housing tenure and residential mobility is strong, but there are reasons for expecting there to have been changes in this relationship over time. These reasons can be found both in the growth of home ownership and in other changes in the housing market.

In the Netherlands, the number of homeowners has increased from 28 percent in 1947 to 53 percent in 2001 (see Figure 1). Since the Second World War, the share of home ownership in the Netherlands has been low compared with other European countries. This situation is to a considerable extent the result of the Netherlands Government's policy reaction to a long-term housing shortage. This policy reaction included rent control and massive support for the construction of social housing (Mulder & Wagner, 1998). For decades, social rented housing built after the Second World War made up the bulk of the housing stock. Social housing still comprises approximately 35 percent of the Netherlands housing market (Netherlands Ministry of Spatial Planning, Housing and the Environment, 2002). When responsibility for adequate housing was decentralized from the central government to the local authorities, subsidies to build in the social rented sector were abolished and the regulations for housing allowances for lower income households became stricter. Nowadays, not many social rented homes are being built (Dieleman, 1999).

---- please insert Figure 1 about here ----

Various developments in Netherlands society and the housing market in particular have been instrumental in achieving home ownership for many in the course of the post-war decades. Real incomes have risen. From 1981 till 1998, the period on which this research concentrates, household incomes rose nominally by 43 percent and real household income rose by approximately 3 percent. In addition, the average number of household members decreased from 2.8 to 2.3 persons (Michiels, 2000). The number of dual-earner households has risen enormously since the 1960s, even though the rise was

slow at first (De Graaf & Keil, 2001). In 1981, the share of dual-earner households within the group of households in which the main earner is between 15 and 65 years old and has a partner present in the household was approximately 29 percent. By 1998, this share was 45 percent (Statistics Netherlands, 1999). On average, women account for 31 percent of the total household income. This percentage is higher in the case of young couples (Statistics Netherlands, 2002). Another factor contributing to easier access to home ownership is the fact that the conditions for obtaining mortgages have become less restrictive (Boelhouwer, 2000; Mulder & Wagner, 1998).

It is possible that the sheer rise in home ownership has led to a decrease in the difference in residential mobility between owners and renters. With the rise, home ownership has become less exclusive, possibly leading to two phenomena. First, the category of homeowners might consist less specifically of the least mobile households. Second, the choice of housing options in the owner-occupied sector has increased, thereby enhancing the opportunities for households to further improve their housing situation within the owner-occupied sector. We therefore expect the negative effect of home ownership on residential mobility to become less strong.

In the Netherlands, home ownership has not only become much more widespread; it also occurs in earlier stages in the life course, at younger ages and before having children (Feijten & Mulder, 2002; Mulder & Wagner, 1998). In the previous section, we argued that the immobilizing effect of home ownership might be less strong for young and childless homeowners. Based on that idea, we might expect a decrease (or an extra decrease) through time in the negative impact of home ownership on residential mobility. This is because the growing number of childless couples among homeowners should disappear after accounting for the changes in the household composition of homeowners.

Apart from the rise in home ownership, there have been other developments in the Netherlands housing market that may have caused changes in the comparative reluctance to move of homeowners and renters. The owner-occupied market was in trouble in the first half of the 1980s. As a result of an economic crisis and increases in mortgage interest rates, the prices of owner-occupied dwellings dropped considerably (Figure 2).

---- please insert Figure 2 about here ----

When the housing market started to recover in 1985, buying a home was comparatively inexpensive (Figure 2); selling prices were moderate and mortgage interest rates low. The combination of these factors formed an excellent incentive for renters to move to ownership in the Netherlands so that, not surprisingly, massive tenure shifts of households occurred. Households with moderate and higher incomes in particular made the transition to home ownership. In the 1990s, the Netherlands economy performed well and mortgage interest was low, providing the right conditions for an increase in the prices of owner-occupied dwellings. Netherlands policy was also geared towards stimulating home ownership by reducing subsidies for the rental sector, thereby making home ownership more attractive. Housing prices have risen particularly sharply since 1991. Mortgage interest rates in the Netherlands have remained low, however, which means that even though *housing prices* have risen, the relative *costs* of home ownership

have remained below those of renting. Furthermore, until well into the 1990s, rents rose at least as fast as ownership prices (Figure 3).

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In times of rising ownership prices, people will be more likely to see home ownership as a safe and profitable investment than merely a way of securing accommodation. Under those circumstances, renters are likely to be more inclined to make the transition to home ownership rather than in a troublesome market, while owners will also be more inclined to improve their housing situation within the owner-occupied sector. Therefore, in times of rising prices, the likelihood of residential mobility can be expected to be greater for homeowners than in other periods, and for renters the likelihood of moving into ownership will also be greater.

All in all, we hypothesise a decrease through time in the difference in residential mobility between owners and renters, possibly with a temporary interruption at the time of the difficult housing market circumstances of the first half of the 1980s.

Data and Methods

The data used in this article were taken from five Netherlands Housing Demand Surveys (WoningBehoefteOnderzoeken) conducted approximately every four years between 1981 and 1998 by Statistics Netherlands (1999). The research population is representative of the Netherlands population aged 18 and over and not living in an institution. The dataset includes detailed information on individual and household characteristics. Furthermore, the dataset includes information on residential moves in the four years before the interview and information on the previous location of residence, the household composition before the last move, and characteristics of the former residence.

For the analysis, respondents aged from 18 to 65 years old were selected, excluding the respondents still living with their parents, in student accommodation, rented rooms and temporary accommodation. They are excluded because tenure is a central variable in the analyses and any former tenure of these respondents would be their parents', not their own. The research population consisted of those respondents who had not moved in the two years preceding the interview and those who had moved 35 kilometres or less in this two-year period. The definition with regard to distance is made based on reasons for moving by distance (Goetgeluk, 1997). Respondents who had moved a distance of more than 35 kilometres were not included in the analyses, because such moves are often employment related and are therefore less relevant for the analyses in this paper. The result was a total of 193,200 respondents in the combined dataset of the five surveys (N_{1981}=42,680; $N_{1985\text{-}86}$=35,026; $N_{1989\text{-}90}$=35,353, N_{1994}=41,056; N_{1998}=39,085); about 9 percent of them (17,207) had moved 35 kilometres or less in the two years preceding the interview.

Although the Housing Demand Surveys include information on all residential moves in the four years preceding the interview, only those moves in the two years before the interview were included, because part of the independent variables were measured at the date of interview rather than before a potential move, and a period of two years was considered to be the maximum time to regard the current values of these

variables as a satisfactory approximation of those preceding a potential move. Furthermore, information about the previous residence was only gathered for the most recent move, so looking back for a longer time would imply that more information about moves preceding the most recent one would have to be discarded. In the descriptive analyses, we only included those moves that took place in the year prior to the year of interview. This was done because the interviews were conducted at different times in the year, so that the observation period is not equally long for every Housing Demand Survey.

The analyses consist of two parts. In the first descriptive part, we have shown differences in home ownership between types of households; we focus on the difference between owners and renters in the probability of making a residential move. For the descriptive analyses, the data were weighted using person weights provided by Statistics Netherlands. The second part consists of multivariate analyses. The dependent variable in these multivariate analyses indicates whether or not respondents moved a distance of 35 kilometres or less in the two years preceding the interview. Since this dependent variable is dichotomous, a logistic regression model was used. Except for income and level of education, the independent variables were measured before the move for movers and at the moment of the interview for non-movers. To analyse the changes in the effect of home ownership on residential mobility, an interaction effect between period and tenure was included in the model. Changes in transaction costs and house prices are represented in the variable 'period'. Table 1 presents the summary statistics and definitions of the variables used in the analysis.

In order to see whether there were any differences in the effects of the independent variables between renters and owners, we also ran separate analyses for the two tenures. Furthermore, we tested whether it was necessary to control for the degree of urbanisation as a proxy for the local supply of housing. No significant changes in the results occurred, so the results of these analyses have not been shown.

---- please insert Table 1 about here ----

Results

Descriptive results

A factor underlying the main hypotheses for this paper is the increase in home ownership and the increasingly early age at which people become homeowners for the first time. This situation is illustrated in Figure 4, which shows the percentage of homeowners in certain age groups. We see that, as expected, the percentages are higher for the more recent years. The age groups under 40 indeed show the largest growth through time.

---- please insert Figure 4 about here ----

Another basis for the hypotheses is the notion that couples without children, who are relatively free to move, are a growing category among homeowners. In Figure 5, the percentage of homeowners is depicted according to household composition. Home ownership has indeed grown fastest among couples without children, even though home ownership is still even more common among couples with children.

---- please insert Figure 5 about here ----

As expected, Figure 6 shows that the likelihood of moving was lower for people in owner-occupied homes than for people in rented homes in the Netherlands throughout the entire 1980s and 1990s. Although we expected the difference between owners and renters to become smaller, the figure does not show a clear trend. We do see a slight drop in the likelihood of moving among owners in the first half of the 1980s, but no such trend shows up for renters. Establishing whether the type of tenure into which homeowners and renters move changes over time would contribute to a better understanding of any variation there might be in the meaning of home ownership. As could be expected, the moves of both owners and renters were less frequently directed to owner-occupied homes in the mid 1980s than in the early 1980s. In the early 1990s there was a slight drop in residential mobility among both renters and owners, possibly caused by the economic bust at the time. In the boom year of 1997, a considerable proportion of renters moved into owner-occupied homes. Interestingly, homeowners moved more frequently to rented accommodation in that year than in previous years. Some homeowners possibly took the opportunity of high prices to release the equity from their homes by moving to the rental sector.

---- please insert Figure 6 about here ----

We see fluctuating percentages of movers for all combinations of household composition and housing tenure except home owning couples without children. For these, we see a slight, but steady increase in the probability of moving over the years (Figure 7). This finding, together with those in Figure 6, contributes to the idea that the residential mobility of homeowners has increased particularly among the category for which home ownership has increased most.

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Multivariate results

Table 2 presents the results of the logistic regression model of the probability of moving over a distance of 35 kilometres or less. Model 1 includes home ownership, period of interview, and the interaction effect between period and home ownership. The results confirm that homeowners move less than renters. The main effect of period does not show any changes over time except for between 1980-81 and 1984-85, after which there was little further change. From the interaction effect we see that, compared with 1980-81, the difference between homeowners and renters first became greater in 1984-85, returned to the level of 1980-81 in 1988-89, and was smallest in 1997-98. From this finding it can be concluded that the difference between renters and owners in residential mobility is not stable through time. The result might indicate a decrease in the effect of home ownership on the probability of residential mobility, with a temporary interruption during the housing market bust of 1984-85. Alternatively, the result might indicate stability in the effect of home ownership, except for periods of boom in the housing market (such as 1997-98) and bust (such as 1984-85).

---- please insert Table 2 about here ----

One of our hypotheses reflected our expectation that a decrease in the effect of home ownership on residential mobility would disappear after controlling for changes in the household composition and ages of homeowners. Model 2 includes household composition and other relevant control variables. The main effects of home ownership and period are the same as in Model 1. The interaction effect of period and tenure is also similar. For 1997-98, the decrease in the effect of home ownership is even stronger in model 2 than in model 1. The fact that controlling for the household composition and age of homeowners does not change the interaction effect in the expected direction indicates that the changes in the effect of home ownership on residential mobility do not result from changes in age or household composition.

With regard to the control variables, the results show that couples without children, with children, and single parents move less than singles. Couples with children are the least likely to move. The probability of moving is non-linearly related to age. According to the model, the probability of a residential move first decreases with increasing age and then rises after the age of 55. The effect of crowding is shown to be as expected. The likelihood of moving increases as the number of rooms in the residence has to be shared with more people in the household. The probability of a residential move increases with increasing household income. The parameter of income-squared shows that the effect of income is positive, but slightly less so for the very high incomes. The probability of a residential move increases with the level of education.

Discussion

This study addressed the question of how the effect of home ownership on residential mobility changed in the Netherlands in the 1980s and 1990s. A major reason for addressing this question was that home ownership has grown in the Netherlands in the past few decades, possibly leading to a decrease in residential mobility if the relationship between home ownership and residential mobility has not changed.

The main conclusion is that, in the Netherlands, the difference between homeowners and renters in residential mobility has indeed shown changes through time. However, the change is not linear. In comparison with 1980-81, the period 1984-85 shows a greater difference in the probability of moving over a distance of 35 kilometres or less between homeowners and renters. This difference can be ascribed to the housing-market crisis in the early 1980s and the reluctance of people to sell for less than the outstanding mortgage. After 1984-85, the difference between owners and renters first returned to the level of 1980-81 and then, in 1997-98, became significantly smaller.

A comparison of analyses with and without controls for household situation, age, and several other variables known to influence residential mobility makes it clear that the changes through time in the differences between owners and renters cannot be attributed to changes in the composition of the population with regard to these variables. The results are in line with two other explanations for the changes: the sheer growth of home ownership, allowing people to move more easily between owner-occupied homes; and the succession of boom and bust periods in the market for owner-occupied housing.

From our results, it has become evident that the difference in the likelihood of residential mobility between renters and homeowners does not necessarily remain constant over time. Therefore, any further growth of home ownership in the future

would not necessarily imply a decrease in residential mobility and an accompanying inertia on the housing market that could be automatically derived from the current level of this difference. But this inference will hardly be reassuring. The difference between owners and renters might decrease further, as it did in the second half of the 1990s, or it might increase again with future bust periods in the housing market, as it did in the first half of the 1980s. Furthermore, the difference in the likelihood of residential mobility between renters and owners was still very considerable at the end of the period researched here. Despite the changes through time, the overall picture is still one of low residential mobility among homeowners.

In this paper we have concentrated on residential mobility: residential moves over a short distance, most frequently intended to improve the housing situation, or to adjust the housing situation to changes in family composition. We have excluded moves over longer distances in this paper, because these moves have different causes; we plan to devote attention to long-distance moves in future work. Including the long-distance moves in the current analyses would not have led to substantial changes, because they only form a small minority of the moves.

The Housing Demand Surveys used in this study have a major advantage: each involves several tens of thousands of people, providing great statistical power. However, there are only five separate datasets. Five moments of data recording are not many for studying a twenty-year period. With a much greater number of data points, hypotheses on changes through time could be tested more directly. Instead of using period effects, variables indicating changes through time could be introduced, such as the annual percentage of homeowners, the average price of owner-occupied housing, or other measures of economic or housing-market circumstances. Such an approach would not be feasible with just five observation periods. Furthermore, even though the provision of data on changes through time is one of the purposes of the Housing Demand Surveys, they were not designed with the purpose of analysing them together. They differ in the methods of data collection and in the efforts put into realizing a satisfactory response over and above changes in the willingness to respond to surveys in general. The descriptive results and the main effect of period in the multivariate results might have been partly affected by these differences. We have, however, no reason to mistrust the findings with regard to the other determinants of residential mobility, or the interaction between period and home ownership.

A drawback of the measurement of the independent variables is the fact that income was only measured at the moment of interview. This measure seems to be a reasonable approximation of the income before a potential move for most people, since the move occurred within the last two years. However, for some people the move may have caused a change in household income and for them the assumption that the causality runs from income to residential mobility would not be justified. This might be the case, for example, for those who moved for reasons of divorce.

It might be argued that the low residential mobility of homeowners is only problematic to a limited extent. As long as homeowners are satisfied with their current dwellings, there is no need to move. However, we may be quite sure that the immobility of homeowners is not merely the result of greater satisfaction, but to some extent the high transaction cost of moving within the owner-occupied housing market sector. An indication for this idea can be found in the temporary increase in the effect of home ownership on residential mobility during the housing market bust in the first half of the

1980s. Furthermore, low residential mobility leads to small numbers of vacancies on the housing market. The speed of re-matching changing households to housing might be slowing down, decreasing the opportunities for moving not only for those seeking better housing, but also for those wanting to make a first start on the housing market, and those wanting to move for reasons of work or education. For example, empty nesters might not move to smaller houses fast enough so that family-sized housing is released for the next generation too slowly. Consequently, a further growth of home ownership may indeed lead to problems associated with low residential mobility.

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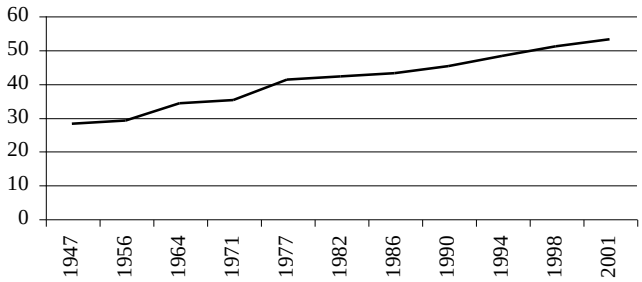
Figure 1. Percentage of owner-occupied homes in the Netherlands, 1947-2001.



Source: Netherlands Ministry of Spatial Planning, Housing and the Environment, 2002

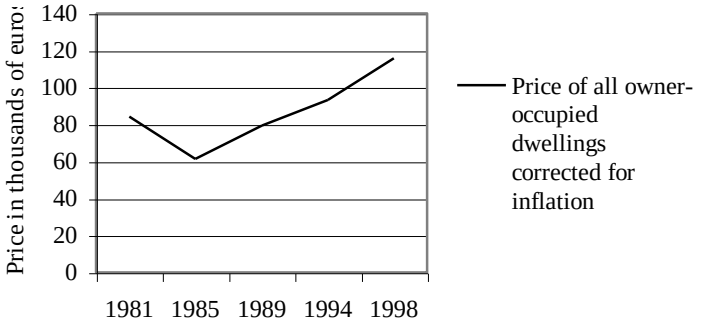


Figure 2. Average price of owner-occupied dwellings, 1981-98.
Source: Boelhouwer et al, 2000

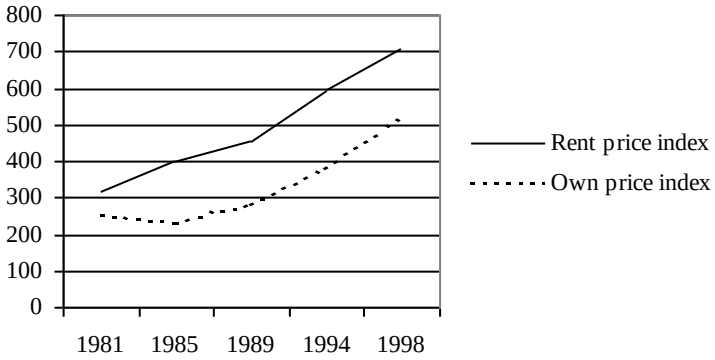


Figure 3. The relative price of home ownership and renting, 1981-98 (1965 = 100).
Source: Netherlands Ministry of Spatial Planning, Housing and the Environment, 2002

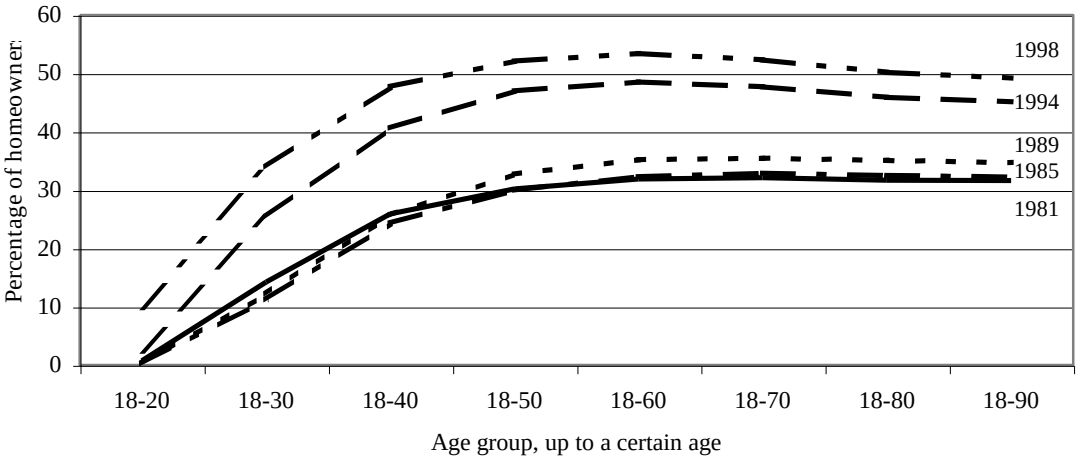


Figure 4. Percentage of homeowners from 18 up to various ages, per year.
Source: Statistics Netherlands, Housing Demand Surveys 1981-98.

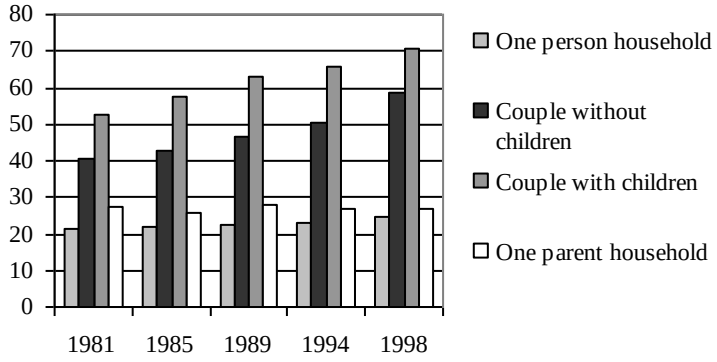


Figure 5. Percentage of home ownership by household category.
Source: Statistics Netherlands, Housing Demand Surveys 1981-98.

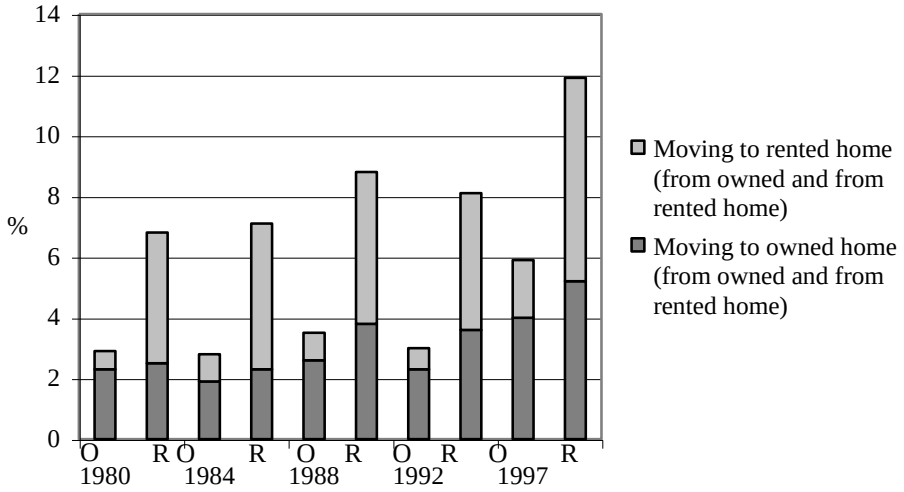


Figure 6. Percentage moving by tenure of origin and destination.
Source: Statistics Netherlands, Housing Demand Surveys 1981-98.

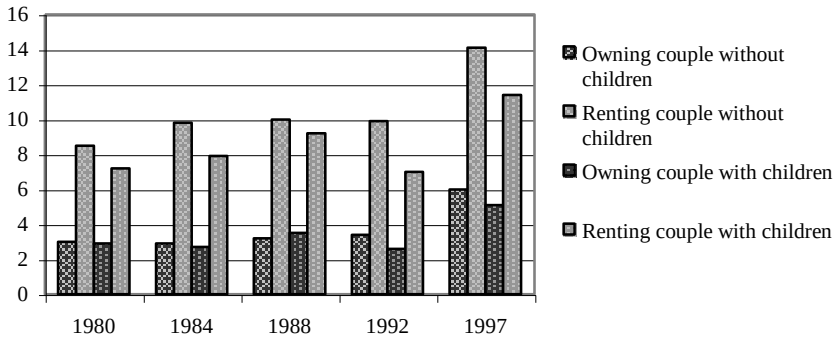


Figure 7. Percentage moving of couples without and with children by tenure.
Source: Statistics Netherlands, Housing Demand Surveys 1981-98.

	Mean	Stand. Dev.	Range
Dependent *(moved over 35km or less)*	0.091		0, 1
Homeowner[1]	0.547		0, 1
Period			
1980-81	0.222		0, 1
1984-85	0.181		0, 1
1988-89	0.184		0, 1
1992-93	0.211		0, 1
1997-98	0.203		0, 1
Household composition[1]			
One person household	0.094		0, 1
Couple without children	0.276		0, 1
Couple with children	0.594		0, 1
One parent household	0.036		0, 1
Age *(in years)*	42.323	11.234	18.00-64.0
Crowding ratio[1,2]	0.706	0.271	0.14-2.00
Household income [3]	2.107	1.389	0.00-51.78
Level of education			
Primary	0.187		0, 1
Secondary	0.630		0, 1
College or University	0.183		0, 1
Number of respondents = 193,200			

[1]Measured before the move for movers and at the moment of the interview for non-movers
[2]Crowding ratio is the ratio of the number of people to the number of rooms
[3]Annual net household income in tens of thousands of 1981 euros

Table 1. Variable summary statistics and definitions.
Source: Statistics Netherlands, Housing Demand Surveys, 1981-98.

	Model I			Model II		
	B	Sig	s.e.	B	Sig	s.e.
Homeowner *(ref.=renter)*	-1.088	***	0.042	-1.031	***	0.043
Period *(ref.=1980-81)*						
1984-85	0.328	***	0.031	0.336	***	0.032
1988-89	0.356	***	0.031	0.361	***	0.032
1993-94	0.368	***	0.030	0.331	***	0.032
1997-98	0.320	***	0.033	0.369	***	0.034
Period*homeowner *(ref.=1980-81*renter)*						
1984-85 by homeowner	-0.207	***	0.060	-0.201	**	0.061
1988-89 by homeowner	0.056		0.057	0.088		0.058
1992-93 by homeowner	-0.004		0.055	0.047		0.056
1997-98 by homeowner	0.135	**	0.056	0.233	***	0.057
Household composition *(ref.=one person hh)*						
Couple without children				-0.100	**	0.032
Couple with children				-0.571	***	0.035
One parent household				-0.246	***	0.050
Age				-0.110	***	0.006
Age squared				0.001	***	0.000
Crowding ratio				1.044	***	0.037
Household income				0.185	***	0.012
Income squared				-0.007	***	0.001
Level of education *(ref=primary)*						
Secondary				0.187	***	0.025
College/ university				0.332	***	0.031
Constant	-2.107	***	0.022	-0.117		0.127

*=p<0.10; **=p<0.05; ***=p<0.01

Table 2. Logistic regression models of residential moves (35 kilometres or less).
Source: Statistics Netherlands, Housing Demand Surveys, 1981-98.