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### Intentions to move, residential preferences and mobility behaviour: a longitudinal perspective

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# 5 Longitudinal analysis of the formation and realisation of preferences to move into homeownership in the Netherlands

*This chapter is co-authored by Dorien Manting and Clara H. Mulder and has been submitted to an international peer-reviewed journal*

*ABSTRACT This study investigates how life course characteristics and housing market circumstances affect the formation and realisation of preferences to move into homeownership. Using a data set from the Netherlands in which data from three cross-sectional housing surveys are enriched with longitudinal register data for the period 1998–2008, we follow aspiring homeowners regarding their actual residential behaviour. We find that only 31 per cent of the aspiring homeowners became homeowners within two years, approximately 13 per cent moved to rental homes, and the vast majority did not move at all. Insufficient socioeconomic resources and a high house price-to-rent ratio hamper the realisation of preferences to move into homeownership. However, these hampering factors are at least as important as the extent to which individuals prefer to move into homeownership. This last finding suggests that housing tenure preferences cannot be viewed as “pure” preferences.*

## 5.1 Introduction

A large body of empirical research has examined the choice between renting and owning a home. In particular, the transition to homeownership has received attention from demographers, economists, sociologists, and human geographers. Moving into homeownership is an important event in the life of individuals (Withers, 1998) and has consequences for the housing market and society at large (e.g., Megbolugbe & Linneman, 1993; Mulder & Hooimeijer, 1999).

The transition to homeownership can be divided into two stages: the formation of the preference to move into homeownership and the subsequent potential realisation of this preference. Both stages must be understood in terms of life course characteristics and the regional housing market circumstances that may constrain individual residential behaviour (cf. Dieleman & Everaers, 1994; Lee & Myers, 2003). Individuals adjust their preference to move into homeownership to what they perceive to be possible given their income and the housing market circumstances (Forrest et al., 1990; McLaverty & Yip, 1993). These factors may also affect the realisation of preferences to move into homeownership. This is particularly true for contextual factors, such as housing market circumstances, because the perception of constraints at the macro level is likely to be less accurate than the perception of the barriers stemming from individuals' personal circumstances.

Studying the formation and realisation of the preference to move into homeownership among the same individuals makes it possible to unravel at which stage and to what extent factors may hamper or stimulate the transition to homeownership. Moreover, this study reveals whether certain categories of aspiring homeowners find it more difficult to realise their preference to move into homeownership than others do. Given the importance of homeownership and the fact that in many developed countries, such as the United States and the Netherlands, housing policy is aimed at encouraging homeownership (Aarland & Nordvik, 2009; Megbolugbe & Linneman, 1993), it is important to understand why some aspiring homeowners achieve homeownership and others do not. Until now, however, this issue has remained unexplored because previous research tends to focus on actual tenure outcomes (for example, see Aarland & Nordvik, 2009; Di Salvo & Ermisch, 1997; Helderma et al., 2004; Ioannides & Kan, 1996; Withers, 1998).

This paper addresses the following question: *To what extent do life course characteristics and contextual circumstances influence the formation and realisation of preferences to move into homeownership, and in which of these two stages do the various factors have the largest impact?* Although we study the outcome of the

tenure preference formation process rather than the process *per se*, we use the term “formation” to maintain a clear distinction between the two stages of the transition to homeownership [see Crowder (2001) for a similar approach to the formation of mobility expectations].

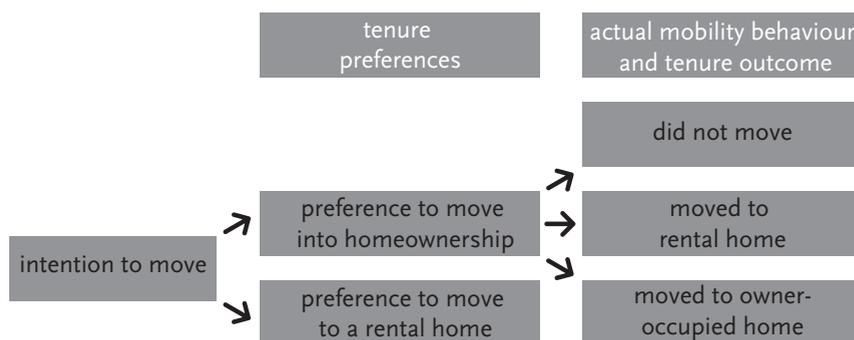
We use a data set in which survey data from the Housing Demand Surveys (HDS) 1998 and 2002 and the Housing Research Netherlands (HRN) 2006 survey are enriched with individual longitudinal register data from the Social Statistical Database (SSD) of Statistics Netherlands (Bakker, 2002). Whereas the surveys provide information about stated mobility intentions and tenure preferences, the register data provide information about actual mobility behaviour and actual tenure choice. We employ a binary logistic regression analysis of the formation of preferences to move into homeownership and a multinomial logistic regression analysis of the actual residential behaviour of aspiring homeowners, in which we distinguish between moving to own, moving to rent, and remaining in the current home. Seemingly unrelated estimation is used to investigate whether any differences in the estimated effects for the formation and realisation of preferences to move into homeownership are statistically significant.

## **5.2 Theoretical framework**

### ***5.2.1 The transition to homeownership in two stages***

In line with the thought that the decision to rent or buy may arise from different factors than those underlying the decision to move (Mulder, 1993; Spader & Guercia, 2008), it is assumed that individuals form a preference for a rental or an owner-occupied home after they have developed an intention to move (Figure 5.1). Preferences for moving into homeownership are frequently associated with housing reasons for moving (Mulder & Hooimeijer, 1999). Financial considerations, in the Netherlands, most notably tax advantages, are also an important reason why individuals may prefer to move into homeownership (Elsinga, 1995).

Although it is sometimes assumed that preferences are unconstrained (Crowder, 2001; Desbarats, 1983) – that is, they are not adjusted for factors that may impose severe restrictions and constraints on the extent to which the preference can be realised –, several studies have suggested that tenure preferences are adjusted, at least to a certain extent, to individual and contextual factors that may hamper moving into homeownership (e.g., Forrest et al., 1990; McLaverty & Yip, 1993). The fewer resources individuals believe they possess and the more hindrances they anticipate, the smaller their perceived control over behaviour (Ajzen, 1991). If individuals have a low perceived behavioural control, a



**Figure 5.1** Analytical framework

positive attitude towards homeownership may not crystallise into a manifest preference to move into homeownership. In the social psychology literature, this phenomenon is known as “adaptive preference formation”. To reduce cognitive dissonance (uncomfortable feelings caused by preferring something that is difficult to attain) individuals may adjust their preferences in advance (Elster, 1983).

After individuals have adjusted their tenure preferences to the perceived restrictions and constraints, these factors may still have an independent effect on the realisation of preferences to move into homeownership. First, it is unlikely that individuals perfectly adjust their tenure preferences in advance. Even if individuals believe that it is difficult to move into homeownership, they may still prefer to move into homeownership, which might indicate the adoption of “wishful thinking” (Elster, 1983). Second, the hampering factors may be more severe than anticipated (Desbarats, 1983). This is particularly true for contextual factors that are beyond a person’s control; the perception of constraints at the macro level is likely less accurate than the perception of the barriers stemming from individuals’ personal circumstances.

If aspiring homeowners have difficulties realising their preference to move into homeownership, they may choose to either remain in their current homes or to move to rental homes (Figure 5.1). The latter is often referred to as substitution: the acceptance of a home that may fit some, but not all, of one’s initial preferences (Goetgeluk, 1997). The choice between the two alternatives is presumably dependent on personal circumstances. Personal circumstances, such as the stage in the various life course careers, determine both the possibility of postponing the intended move and the willingness to adjust the initial tenure preference. Note that moving to a rental home is only one of the many possible

adjustments that aspiring homeowners may make; adjustments regarding the quality of the home or the price segment are also likely to occur.

### **5.2.2 *The role of life course characteristics***

A less favourable socioeconomic position, indicated by a low income, no job, or a low education level, may indicate certain institutional barriers that are difficult to bridge. For instance, being unemployed makes it nearly impossible to obtain a mortgage because this state coincides with a low income and unfavourable income prospects (Blaauboer, 2010). If individuals consider such hampering factors when forming a tenure preference, those in a less favourable socioeconomic position will prefer to move into homeownership less frequently than those in a more favourable socioeconomic position. Individuals in a less favourable socioeconomic position may also be less willing to borrow money to buy a home because of the risks involved in the long-term financial commitment of homeownership (see also Helderma et al., 2004). In the Netherlands, there are two other reasons why individuals with high incomes are especially likely to prefer homeownership. First, individuals with high incomes are precluded from entering large parts of the rental housing sector because this sector is dominated by social housing. Second, the benefits of mortgage interest deductibility on taxable income are largest for individuals with high incomes due to their higher marginal tax rate (Haffner & Boumeester, 2010). Financial resources are also expected to be important in the extent to which aspiring homeowners realise their preference to move into homeownership. Socioeconomic resources make it easier to obtain a mortgage and expand the range of dwellings that are within the financial reach of the aspiring homeowner (Mulder & Hooimeijer, 1999). Therefore, positive associations are hypothesised between income, level of education (an indicator of income potential), full-time employment and the realisation of preferences to move into homeownership.

The transition to homeownership is often undertaken when individuals have reached a certain degree of stability in life (Mulder & Hooimeijer, 1995; Withers, 1998). Both the household situation and age are important indicators of the degree of life course stability. Couples and families and, to a lesser extent, individuals whose intention to move is triggered by union formation are therefore expected to be more likely to prefer to move into homeownership than singles, whose household situation is generally less stable (Richards et al., 1987). Couples are also expected to have less difficulty realising their preference to move into homeownership than singles because mortgage lenders may consider it risky to provide a mortgage based solely on one income.

Whereas instability and a smaller amount of savings mark the first years of adulthood, the life stage of individuals in their late twenties and thirties is associated with a higher degree of stability and more savings (Mulder, 1993; Myers et al., 2005). Therefore, an increased likelihood of preferring to move into homeownership is expected around these years. Around the age of 50, the willingness to move into homeownership may decrease due to the shorter time remaining to make the down payment on a mortgage loan. Furthermore, insufficient savings may prevent young aspiring homeowners from actually moving to an owner-occupied home. If they have difficulty moving to an owner-occupied home, young aspiring homeowners are expected to be more willing to move to rental homes than their older counterparts. Young adults are often still at the beginning of their housing careers, which may make their preference for homeownership less pronounced.

Although owner-occupied homes are especially popular among families with children (Helderma et al., 2004), the transition to homeownership is often undertaken in anticipation of childbirth, thus, before a child is born (Feijten & Mulder, 2002; Mulder & Manting, 1994). After the birth of a child, the costs of rearing children may compete with the costs of homeownership (Courceau & Lelièvre, 1992; Kendig, 1984), which may make families with children less likely to form and realise a preference to move into homeownership.

Furthermore, many studies show that ethnic minority groups, such as African-Americans and Hispanics in the United States and non-Western migrants in the Netherlands, are less likely to become homeowners (for the United States, see Alba & Logan, 1992; Krivo, 1995; for the Netherlands, see Musterd & Van Kempen, 2009; Zorlu & Latten, 2009). Explanations are often sought in socio-economic differences, in cultural differences leading to distinct residential preferences, and in “exclusionary practices”, such as redlining, which may make it more difficult to obtain a mortgage loan in ethnic minority dominated neighbourhoods (Aalbers, 2007; Alba & Logan, 1992; Musterd & Van Kempen, 2009). An innovation of this study is that it allows for the investigation of whether non-Western migrants’ transition to homeownership is mainly hindered in the formation stage or in the realisation stage.

Finally, we account for the strength of the intention to move and the current housing situation (living in the parental home or in an independent rental home) because a strong intention to move and living in the parental home are known to increase the likelihood of realising an intention to move (De Groot, 2011).

### **5.2.3 The role of contextual circumstances**

In the Netherlands, housing market circumstances are shaped by a long-standing tradition of government intervention that affects the accessibility of social rental housing and the monthly housing costs involved with renting or owning a home. Whereas the rental housing sector is dominated by social housing with regulated rents, housing allowances, waiting lists, and allocation rules, the owner-occupied housing sector, which has grown into the largest housing market sector, is marked by tax savings in the form of full deductibility of paid mortgage interest on taxable income (Haffner & Boumeester, 2010; Mulder, 2004; Rouwendal, 2007). The tax savings are equal to the product of the gross interest payments and the marginal tax rate, which is 42 or 52 per cent for most Dutch taxpayers (Rouwendal, 2007). Although market forces determine housing prices (Rouwendal, 2007), the Dutch housing market is not a competitive market on the supply side; the housing supply barely responds to changes in housing prices (Andrews et al., 2011; Haffner & Boumeester, 2010), which may be attributable to the strict regulations governing spatial planning (Renes et al., 2006).

The ratio between the monthly user costs of owning relative to renting is particularly important for the transition to homeownership (Clark et al., 1994; Di Salvo & Ermisch, 1997; Himmelberg et al., 2005). The monthly user costs of owner-occupied housing, which mainly consist of the mortgage interest and down payment on the mortgage loan, indicate the costs that individuals have to bear when they move into homeownership (Renes et al., 2006). Households explicitly weigh the costs of owning against the costs of renting in their purchase decisions (Myers et al., 2005). Low costs of owning and high rent levels tend to create a favourable climate for preferences for homeownership (cf. Forrest et al., 1990). Conversely, when owning is expensive relative to renting, individuals are expected to be less likely to prefer to move into homeownership.

Housing market circumstances are especially important for the extent to which aspiring homeowners actually move into homeownership because it may be difficult to accurately perceive the contextual factors that are beyond an individuals' sphere of influence. If the costs of owning are high compared to the costs of renting, aspiring homeowners are expected to be less likely to move to an owner-occupied home and more likely to move to a rental home. This expectation is strengthened by the fact that high costs of owning relative to renting often accompany high housing prices. This is particularly true in the Netherlands, where the housing rents do not differ strongly over space due to strong rent regulations. Housing prices are an important component of the user costs of owner-occupied housing (Di Salvo & Ermisch, 1997) and are crucial for individuals' ability to move into homeownership (Clark et al., 1994). High

housing prices are known to discourage renters from becoming homeowners (Ermisch & Di Salvo, 1996; Ioannides & Kan, 1996).

The costs of owning compared to the costs of renting vary between regional housing markets, which is mainly attributable to spatial differences in housing prices (hence, the costs of owning). Individuals who prefer to move to a housing market region in which owning is expensive relative to renting are expected to be less likely to form and realise a preference to move into homeownership. Obviously, the assumption that individuals form their tenure preference *after* they have decided upon a preferred region may not always hold. Some individuals may adjust their location preferences to the area (e.g., the suburbs) that they believe offers more opportunities to realise their manifest preference to move into homeownership (see also Mulder, 1993). Although this may lead to a reversed causality between housing tenure preferences and location preferences (and subsequently to a biased house price-to-rent ratio coefficient), we do not consider this a major problem for our analysis. Because of factors such as emotional place attachment and location-specific capital that ties a person or household to a specific place (e.g., DaVanzo, 1981), people tend to move over short distances (Clark & Dieleman, 1996). To illustrate, in the Netherlands, about three-quarters of all moves are intra-municipal (Feijten & Visser, 2005). Preferences for a certain regional housing market are, therefore, presumably particularly influenced by the current residential location rather than by regional differences in housing market opportunities.

Volatility in housing prices may affect the decision to move into homeownership in various ways (see also Andrews et al., 2011). For instance, although housing price appreciations may trigger some individuals to move into homeownership for investment reasons, they may also prevent individuals, particularly renters and those with a low income, from becoming homeowners (Ermisch & Di Salvo, 1996; Follain, 1982; Ioannides & Kan, 1996). In the period under study, the average real housing price rose steeply, from 158,000 euro's in 1998 to 249,000 euro's in 2007. Because the development of the average household income did not keep pace with housing price appreciation, owner-occupied homes became less affordable over time. Whereas the average housing price in 1998 was approximately 5.4 times the average disposable annual household income of 23,900 euro's, this ratio gradually increased to 7.8 in 2006 (see also Haffner & Boumeester, 2010). Considering these developments, it is hypothesised that individuals were less likely to prefer to move into homeownership in 2002 and 2006 than in 1998. Because of a possible data issue, we do not formulate a hypothesis regarding the temporal effect on the realisation of preferences to move into homeownership. Although this issue does

not seem to affect the multivariate results per se, it does make it difficult to relate the changes in realisation to the temporal changes in housing market circumstances (for more information, see Section 5.3.2).

### **5.3 Data and methods**

#### **5.3.1 Data**

We used a pooled longitudinal data set in which survey data from the cross-sectional Housing Demand Surveys (HDS) 1998 and 2002 and its successor, the Housing Research Netherlands (HRN) survey 2006, were enriched with individual register data from the longitudinal Social Statistical Database (SSD) of Statistics Netherlands 1998–2008 (Bakker, 2002).

The housing surveys were conducted among the Netherlands population aged 18 and over who were not living in institutions. The surveys provide detailed information about sociodemographic, socioeconomic, and housing characteristics as well as mobility intentions. An intention to move was indicated by a positive answer (“Possibly yes, maybe”, “I would like to, but I cannot find anything” or “Most certainly yes”) to the survey question, “Do you want to move within the next two years?” For intended movers, the surveys also contained information regarding the preferred tenure and municipality. Based on information about the preferred municipality, we were able to derive the preferred regional housing market for approximately 80 per cent of those with an intention to move. The regional housing markets are based on the spatial level of the 40 COROP regions, which match with the NUTS 3 regions of the European Union classification of territorial units.

The survey data were enriched with individual longitudinal register data from the SSD with a unique personal identification number included in both data sources. The SSD encompasses the entire population of the Netherlands and was used to monitor moves (year-month format) and the accompanying housing tenure choices of the respondents for up to two years following the interview. It should be noted that the longitudinal data set refers to individuals and not households because only respondents were traced over time.

Data about the regional housing market situation in the year the survey was conducted were linked to individual respondents using information about the preferred regional housing market. To calculate the costs of owning relative to renting for each regional housing market, the data set was enriched with regional information on housing prices [Source: “WOX House Price Index”, ABF Valuation (2010)]. The data set was also enriched with regional data on rents in the non-liberalised part of the rental housing sector. Although researchers

sometimes struggle to calculate the costs of owning relative to renting due to the absence of regional data on local authority rents (for example, see Di Salvo & Ermisch, 1997), in the Netherlands, these data are readily available in the annually conducted “Rent Survey” of Statistics Netherlands. This panel survey covers approximately 12,000 rental dwellings, which is considered sufficient to draw conclusions at the COROP level (Statistics Netherlands, 2010). The housing prices and rents were corrected for inflation, with 2006 as the base year.

To analyse the formation of preferences for homeownership, we selected respondents who were not living in an owner-occupied home and who had an intention to move to an independent home at the time of interview ( $n = 28,633$ ). Because we were interested in the role of housing market circumstances in the transition to homeownership, we excluded respondents with missing information on the preferred place of residence ( $n = 6,280$ ). We also excluded respondents who did not state a preference for a particular tenure type ( $n = 2,353$ ) and a small number of HDS 1998 respondents with missing information on migrant status ( $n = 9$ ). After these selections, the research sample for the analysis of the formation of preferences to move into homeownership included 19,991 respondents. For our analyses of the realisation of preferences to move into homeownership, the research sample was further restricted to the respondents preferring to move to an owner-occupied home ( $n = 7,070$ ). We excluded respondents who had moved to homes with missing information about tenure status ( $n = 64$ ). A small number of respondents who had either died or left the country in the two years following the interview were also excluded ( $n = 84$ ). After this selection, our research sample for the analysis of the realisation of preferences to move into homeownership included 6,922 respondents.

### **5.3.2 Variables**

The majority of the variables were derived from the housing surveys, with the exception of the house price-to-rent ratio variable (which was derived from data provided by Statistics Netherlands and ABF Valuation/Kadaster) and the dependent variable indicating the actual residential behaviour of aspiring homeowners (which was derived from the SSD). With the exception of this last variable, all variables refer to the situation at the time of interview. The descriptive statistics of the dependent and independent variables used in the two multivariate analyses are presented in Table 5.1.

The first dependent variable refers to the formation of tenure preferences and indicates whether those intending to move within two years prefer to move to a rental home or an owner-occupied home. The tenure preferences are derived

**Table 5.1** Descriptive statistics of variables in the analyses of the formation (left column) and realisation (right column) of preferences to move into homeownership

Categorical variables	All intended movers		Aspiring homeowners	
	N (100%)	%	N (100%)	%
Preference to move into homeownership (dep var)				
preference to rent	12921	64.6		
preference to own	7070	35.4		
Realisation of preference to move into homeownership (dep var)				
did not move			3877	56.0
moved to rent			912	13.2
moved to own			2133	30.8
Period				
1998–2000	8268	41.4	3638	52.6
2002–2004	6868	34.4	1970	28.5
2006–2008	4855	24.3	1314	19.0
Educational level				
up to lower secondary	8105	40.5	1370	19.8
higher secondary or medium vocational	6992	35.0	2775	40.1
higher vocational or university	4894	24.5	2777	40.1
Labour market participation				
no job	6724	33.6	503	7.3
part-time job	3304	16.5	843	12.2
full-time job	9963	49.8	5576	80.6
Expected partnership situation				
single	8984	44.9	1849	26.7
stable couple	9144	45.7	4187	60.5
single–couple (union formation)	1863	9.3	886	12.8
Presence of children				
no child	14610	73.1	4730	68.3
at least one child	5381	26.9	2192	31.7
Migrant status				
native Dutch	14831	74.2	5647	81.6
Western background	1825	9.1	566	8.2
non-Western background	3335	16.7	709	10.2
Housing situation				
living in parental home or shared accommodation	3261	16.3	853	12.3
renter	16730	83.7	6069	87.7
Strength of intention to move				
less strong	10482	52.4	3568	51.6
strong	9509	47.6	3354	48.5
Continuous variables	Mean	SD	Mean	SD
Age	39.7	16.8	32.4	9.2
Household income (x 1,000)	21.9	14.9	28.7	19.3
House price-to-rent ratio	2.3	0.5	2.2	0.5

from the survey question, “Are you searching for a rental home or an owner-occupied home?” The response categories “I have no preference” and “I do not know” were not differentiated because we excluded those respondents who did not state a preference for a particular tenure type (see previous section). Note that the respondents were asked to consider their incomes when stating their housing preferences (“Please indicate your housing preferences while considering your income”). Therefore, it is likely that the survey question led to an income-constrained tenure preference.

The second dependent variable indicates whether those with a preference to move into homeownership had moved in the two years after the interview was conducted and, if so, if the respondent had moved to a rental or owner-occupied home. We distinguish between did not move, moved to a rental home, and moved to an owner-occupied home. A move was classified as a change in the registered address of the respondent; only first relocations were included. The housing tenure situation of the new registered address was used to determine whether aspiring homeowners had moved to rental or to owner-occupied homes.

To gain insight into the association between the spatial variation in the formation and realisation of preferences to move into homeownership and in the housing market circumstances, a simplified house price-to-rent ratio was calculated for each regional housing market as an approximation of the regional relative costs of owning to renting. Following Renes and Jókövi (2008), this ratio relates the gross mortgage interest that a household would have to pay each month if it were to buy a home to the average monthly rent (see also Himmelberg et al., 2005). The gross mortgage interest was calculated using information about the average housing price and the yearly average mortgage rate (*Source*: “Mortgage statistic” of Statistics Netherlands). The house price-to-rent ratio was derived for each survey year separately. Note that the house price-to-rent ratio is included as an area-level variable and only gives an approximation of the average gross housing expenditures for owning relative to renting. The expenditures do not account for income dependent housing allowances and tax advantages nor for individual preferences regarding the mortgage and other factors that likely affect individuals’ actual monthly user costs of housing.

To investigate the impact of temporal changes in housing market circumstances on the formation of preferences for homeownership, the multivariate model includes a time variable denoting the two-year period following the survey (1998–2000, 2002–2004, or 2006–2008). In the multivariate analysis of the realisation of preferences to move into homeownership, the time variable is merely used as a control variable. A comparison between the actual mobility behaviour of the respondents in the two years following the interview and the

mobility behaviour in the general population for the periods 1998–2000, 2002–2004, and 2006–2008 (*Source*: “Mobility statistics” of Statistics Netherlands) revealed a lower mobility rate among the HDS 1998 respondents than among the general population. Apparently, prospective movers were underrepresented in the 1998 sample. A lower mobility rate leads to a lower realisation rate because it is not possible to realise a preference to move into homeownership without moving. An additional analysis among only aspiring homeowners who moved showed that the proportion who moved to an owner-occupied home was relatively stable in time with a fluctuation approximating 70 per cent. Estimating the multivariate models for each housing survey separately revealed no major differences in the results compared to the results of the multivariate analysis that considered all survey years. Although the possible data problem makes it difficult to relate the changes in the realisation of preferences to move into homeownership to temporal housing market changes, we do not consider this a major problem for the multivariate results.

Income represents the disposable yearly income of the respondent and, if the respondent is involved in a domestic partnership, his or her partner. The income of a small number of respondents ( $n = 282$ ) was marked as “implausible” in the data processing stage; these values have been replaced by the mean household income value. We corrected income for inflation, for which the income in the HDS 1998 was first converted to euro’s. Level of education refers to the highest educational level completed by the respondent or his or her partner, if any. Education was categorised as up to lower secondary or unknown, higher secondary or medium vocational, and higher vocational or university. The employment situation refers to the labour market participation of the respondent or his or her partner, if any, and is categorised as no job, at least one part-time job, and at least one full-time job, which refers to a working week of 36 hours or more.

The partnership variable is based on information about the current partnership status and the expected partnership status after the intended move. Three categories are distinguished: single, stable couple, and single-to-couple (union formation). The category “singles” also includes those who expect a break-up of the union; due to the small number of respondents ( $n = 69$ ), it was impossible to identify the latter category separately. Furthermore, we included three dummy variables: one indicating the presence of children in the expected household after the intended move, one indicating the current housing situation (living in the parental home or shared accommodation versus living in an independent rental home), and one indicating the strength of the intention to move. We distinguish between strong intentions to move (which refers to

individuals who “Most certainly yes” intend to move) and less strong intentions to move. Finally, the migrant status variable is categorised into native Dutch, non-Western migrant, and Western migrant.

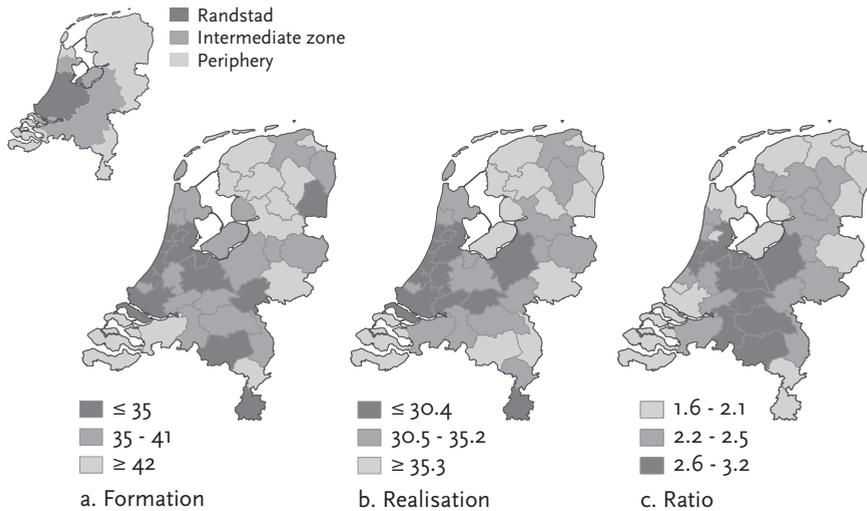
### **5.3.3 Method**

We begin with descriptive analyses to investigate the extent to which individuals form and realise a preference to move into homeownership and the spatial differences therein. Then, we estimate a binomial logistic regression model of the preference to move into homeownership, with the preference to move to a rental home as the reference category. Subsequently, a multinomial logistic regression model of the actual residential behaviour of aspiring homeowners is estimated, in which we distinguish between: did not move (0), moved to a rental home (1), and moved to an owner-occupied home (2). Seemingly unrelated estimation (Suest) is used to investigate whether any differences in the estimated effects of the independent variables on the formation and realisation of preferences to move into homeownership are statistically significant (Chow, 1960; Weesie, 1999). For these cross-model comparisons, we simultaneously estimate the above-mentioned formation model and a realisation model in which only two categories are distinguished: did not realise a move into homeownership (0; comprising “did not move” and “moved to a rental home”) and moved into homeownership (1). Note that both the binomial and multinomial models of the realisation of preferences to move into homeownership showed approximately similar estimates regarding the sign, strength, and significance of the coefficients. Finally, because the observation of housing market circumstances (that is, the regional house price-to-rent ratio) is not independent among individuals preferring to move to the same regional housing market, we corrected the standard errors for the clustering of respondents in regions using the Huber-White estimator to obtain robust standard errors (Fitzmaurice et al., 2004).

## **5.4 Results**

### **5.4.1 Descriptive analyses**

Of the respondents intending to move within two years who had not yet entered homeownership, approximately 35 per cent preferred to move to an owner-occupied home. Of these aspiring homeowners, less than 31 per cent actually moved to an owner-occupied home within two years. Approximately 13 per cent moved to a rental home instead of the initially preferred owner-occupied one, and the remaining majority did not move at all. Of those who did not realise their



**Figure 5.2** The formation and realisation of preferences to move into homeownership in percentages for 1998–2008, and the house price-to-rent ratio for 2007, by regional housing market

preference to move into homeownership within two years time, some may still have a preference to move into homeownership, while others may have discarded or postponed their preference to move into homeownership.

As expected, the extent to which individuals prefer to move into homeownership differs considerably between regional housing markets (see Figure 5.2a). Especially in regions within the Randstad, the most urbanised part of the Netherlands, individuals express a preference to move into homeownership less frequently. For example, whereas 30 per cent or less of the intended movers prefer to move into homeownership in the Randstad regions of Groot-Amsterdam, Leiden, and Het Gooi, 50 per cent of the intended movers in the peripheral regions of Delfzijl and Zeeuws-Vlaanderen prefer to move into homeownership. There are also spatial differences in the extent to which individuals realise their preference to move into homeownership (Figure 5.2b). Individuals whose search locations were in one of the Randstad regions realise their preference to move into homeownership less often than individuals preferring owner-occupied homes in one of the peripheral regions.

Figure 5.2 shows that the regions in which individuals express and realise a preference to move into homeownership less frequently are often regions in which the house price-to-rent ratio is relatively high. Whereas the costs of owning relative to renting are highest in the regions in the northern wing of the Randstad and in the central-south of the Netherlands, they are lowest in the peripheral

regions and in Flevoland, a province in the centre of the country where the suburban growth town Almere is located (Figure 5.2c). Additional analysis revealed that a high house price-to-rent ratio often accompanies a high absolute housing price ( $r = 0.959$ ;  $p < .001$ ).

#### **5.4.2 Multivariate analyses**

Table 5.2 shows the role of life course characteristics and contextual circumstances in the formation and realisation of a preference to move into homeownership. From the overall explanatory power of the models (indicated by the pseudo  $R^2$ ), it becomes clear that life course characteristics and contextual circumstances offer a better explanation of the preference to move into homeownership than of the realisation of this preference.

As hypothesised, individuals tend to adjust their tenure preferences to housing market circumstances. If owning is expensive compared with renting, individuals are significantly less likely to prefer to move into homeownership (Table 5.2). The housing market circumstances likewise affect the extent to which preferences to move into homeownership are realised. Our finding that housing market circumstances are as important to the formation as to the realisation of preferences to move into homeownership (see the insignificance of the Suest test in Table 5.2) may indicate that households have a fairly accurate understanding of their potential to move into homeownership. This finding may relate to the fact that information about housing market opportunities is no longer a limited commodity, as it was in the pre-Internet era (Palm & Danis, 2002). Our findings also suggest that the spatial differences in the formation and realisation of preferences to move into homeownership, as shown in Figure 5.2, partly reflect regionally varying housing market circumstances. Somewhat surprisingly, a high house price-to-rent ratio does not lead to a higher likelihood of moving to a rental home than remaining in the current home. This finding may indicate the rigidity of the preference for homeownership in regions in which owner-occupied housing is relatively expensive.

Although the realisation of preferences to move into homeownership is presumably affected by absolute housing prices (see Section 5.2.3), it is statistically impossible to include the house price-to-rent ratio and the absolute housing price simultaneously in one explanatory model due to collinearity. Likelihood-ratio tests showed that for both multivariate models, the inclusion of the house price-to-rent ratio variable improved the model fit slightly more than the inclusion of the absolute housing price variable.

**Table 5.2** Binomial logistic regression of the preference to move into homeownership and multinomial logistic regression of the realisation of preferences to move into homeownership, with standard errors shown in parentheses

	Preference to move into homeownership <sup>a</sup>		Realisation of preference to move into homeownership <sup>b</sup>			
			Moved to own		Moved to rent	
<i>Contextual circumstances</i>						
House price-to-rent ratio	-0.506***	(0.124)	-0.399***	(0.115)	-0.012	(0.100)
Period (ref: 1998–2000)						
2002–2004	-0.562***	(0.110)	0.377***	(0.105) †	0.192*	(0.108)
2006–2008	-0.516***	(0.087)	0.578***	(0.098) †	0.291**	(0.114)
<i>Individual characteristics</i>						
Age	0.087***	(0.012)	-0.072***	(0.022) †	-0.170***	(0.027)
Age <sup>2</sup>	-0.002***	(0.000)	0.000*	(0.000) †	0.002***	(0.000)
Expected partnership situation (ref: single)						
stable couple	0.407***	(0.073)	0.630***	(0.084)	0.346***	(0.089)
single–couple (union formation)	0.964***	(0.062)	0.495***	(0.092) †	0.191	(0.150)
Presence of child(ren)	-0.197***	(0.050)	-0.165*	(0.097)	0.065	(0.098)
Migrant status (ref: native Dutch)						
Western background	-0.341***	(0.067)	-0.217**	(0.103)	-0.176	(0.144)
non-Western background	-0.659***	(0.084)	-0.677***	(0.108)	-0.064	(0.131)
Household income (x €1,000)	0.049***	(0.003)	0.003**	(0.001) †	-0.014***	(0.004)
Educational level (ref: up to lower secondary)						
higher secondary or medium vocational	0.591***	(0.048)	0.316***	(0.103) †	0.209**	(0.102)
higher vocational or university	1.069***	(0.078)	0.515***	(0.107) †	0.370***	(0.114)
Labour market participation (ref: full-time job)						
no job	-1.281***	(0.062)	-0.279**	(0.136) †	0.383**	(0.138)
part-time job	-0.707***	(0.053)	-0.241**	(0.108) †	0.078	(0.105)
Living in parental home or shared accommodation	-0.642***	(0.058)	0.277***	(0.089) †	0.205	(0.160)
Strong intention to move	-0.259***	(0.039)	1.290***	(0.051) †	1.082***	(0.073)
Intercept	-0.807**	(0.340)	0.450	(0.526)	1.350***	(0.475)
Wald $\chi^2$	6447.04***; $df=17$		3506.30***; $df=34$			
Pseudo $R^2$	0.343		0.095			
N	19991		6922			

<sup>a</sup> Reference category: preference for a rental home; <sup>b</sup> Reference category: did not move  
\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ ; † coefficient “realisation” differs significantly ( $p < .05$ ) from coefficient “formation”

In line with the declining affordability of owner-occupied housing in the period under study, intended movers were significantly less likely to have a preference to move into homeownership in 2002 and 2006 than in 1998. Furthermore, aspiring homeowners were more likely to realise a preference to move into homeownership and to move to a rental home than to remain in the current home in the new millennium than in 1998–2000. As outlined in Section 5.3.2, it is uncertain to what extent these temporal effects are attributable to changes in housing market circumstances.

Individuals tend to adjust their tenure preferences in advance to their own socioeconomic resources. A high income, higher education, and full-time employment increase the likelihood of preferring to move into homeownership. For instance, the odds of preferring to move into homeownership are estimated to be a factor of 1.05 ( $e^{0.049}$ ) higher for every 1000-euro increase in yearly disposable household income. Socioeconomic resources also positively affect the realisation of preferences to move into homeownership. Nonetheless, socioeconomic resources tend to have a more modest impact on the realisation than on the formation of preferences to move into homeownership (see the significant effects of the Suest tests in Table 5.2). This finding might be attributable to the fact that the effect of socioeconomic resources is already considered in tenure preferences. Table 5.2 shows that a high income or a full-time job decreases the likelihood of moving to a rental home among aspiring homeowners. This finding corresponds with the idea that particularly affluent individuals benefit financially from moving into homeownership and do not have access to large parts of the rental housing sector. Somewhat surprisingly, highly educated aspiring homeowners have the highest likelihood of moving to a rental home. Because previous research has shown that highly educated individuals are generally more prone to move (e.g., Fischer & Malmberg, 2001), this finding may indicate that, particularly among the highly educated, the necessity of moving surpasses the necessity of moving into homeownership.

In line with the thought that living in a co-residential union is associated with life course stability, stable couples and singles who expect to form co-residential unions after the intended move are more likely to prefer to move into homeownership than singles are. Expecting union formation has a stronger positive effect on the preferences to move into homeownership than on the realisation of this preference. Although stable couples are more likely to realise their preference to move into homeownership than singles, they also face a greater likelihood of moving into rental homes.

Although we expected that individuals in their late twenties and thirties would be more likely to prefer to move into homeownership, the probability of

preferring to move into homeownership is estimated to slowly increase until the age of 25 and to decrease from that age on. The probability of realising a preference to move also gradually decreases with increasing age. Apparently, the transition to homeownership is typically made in the young adult years; with increasing age, individuals become less likely to make the transition to homeownership. Furthermore, the probability of aspiring homeowners moving to rental homes is estimated to decrease until the age of 50 and to increase from that age on.

In accordance with the thought that the costs of rearing children compete with the costs of moving into homeownership, individuals who expect that their household consists of at least one child after the intended move are less likely to form and realise a preference to move into homeownership than expected childless households are. The hampering effect of the expected presence of children does not significantly differ between the two stages.

Whereas individuals living with their parents or in shared accommodations are estimated to be half as likely as renters to prefer to move into homeownership, they are more likely to realise this preference. This last finding is attributable to the higher mobility rate among aspiring homeowners living in dependent housing, such as the parental home. The comparison between “moved to own” and “moved to rent” for those who actually change residence indicates no significant effect of the housing situation on the likelihood of realising a preference to move into homeownership.

Individuals with a strong intention to move are less likely to prefer to move into homeownership than those with a less strong intention to move. Conversely, strong intentions to move are associated with a higher likelihood of realising a preference to move into homeownership. Individuals with a strong intention to move are also more likely to move to rental homes than those with a less strong intention to move. This finding suggests that the preference to move into homeownership is less rigid among individuals with strong mobility intentions. For these individuals, it might be most important to change residence; whether this move is to the preferred owner-occupied home or not seems to be of secondary importance.

Finally, individuals with non-Western backgrounds are half as likely as native Dutch individuals to form and realise a preference to move into homeownership. Because we controlled for socioeconomic characteristics, these findings are not attributable to the generally less favourable socioeconomic position of non-Western migrants. The less frequent transition to homeownership among non-Western migrants might be attributable to “exclusionary” practices. Alternatively, non-Western migrants’ greater uncertainty about jobs

and income and greater unfamiliarity with the transition to homeownership may hinder their transition to homeownership (Kullberg et al., 2009).

## 5.5 Conclusion

This paper addresses the transition to homeownership in the period of 1998–2008 in the Netherlands. By linking individuals' stated preferences about changing residence and housing tenure to their actual residential behaviour (revealed preferences), this study shows how observable housing market behaviour is the result of stated housing preferences, life course characteristics (as a source of resources and restrictions), and housing market circumstances.

Of the individuals who intended to move within two years and who had not yet entered homeownership, only a minority (35 per cent) preferred to move into homeownership. Of these aspiring homeowners, less than one-third realised their preference to move into homeownership. Approximately 13 per cent moved to rental homes, and the vast majority did not move at all. Singles and non-Western migrants were also less likely to realise their preference to move into homeownership. Furthermore, high costs of owning relative to renting in the preferred housing market region made aspiring homeowners less likely to actually move to owner-occupied homes.

This study demonstrated that both the realisation and the formation of preferences to move into homeownership are shaped by life course characteristics and housing market circumstances. Insufficient socioeconomic resources and a high house price-to-rent ratio hamper the formation of preferences to move into homeownership. Preferences to move into homeownership are thus partly constrained by money (a finding that is undoubtedly related to the fact that respondents were asked to take their incomes into account when stating their housing preferences) and by housing market circumstances. The finding that individuals consider their socioeconomic resources when forming a preference to move into homeownership may contribute to the finding that socioeconomic resources have a more modest impact on the realisation of these preferences.

In the Netherlands, stated housing tenure preferences are used as an indicator for future migration flows or housing demand for policy-making, monitoring, and policy evaluation (Clark & Deurloo, 2006). The finding that housing tenure preferences cannot be viewed as “pure” preferences that indicate what individuals truly desire is not necessarily a disadvantage. In fact, constrained residential preferences may be useful to gain insight into how individuals assess their chances on the housing market and what types of dwellings intended movers would choose if they were to move. As an indicator of

hypothetical housing choices, stated housing preferences do, therefore, not necessarily reflect unrealistic “castles” that are not accounted for certain housing market constraints as is sometimes feared (e.g., Earnhart, 2002; Timmermans, et al., 1994). Nonetheless, researchers should keep in mind that the predictive value of stated preferences to move into homeownership is limited. Many aspiring homeowners do not move at all, and some move to rental homes instead of to their initial preferred owner-occupied homes.

The finding that tenure preferences are constrained by life course characteristics and housing market opportunities presumably contributes to our difficulty in explaining the actual residential behaviour of aspiring homeowners with the same life course characteristics and housing market circumstances. In-depth qualitative research may provide more insight into the factors in addition to the well-established life course characteristics and housing market circumstances that interfere in the step between the formation and realisation of preferences to move into homeownership. It might also be worthwhile for future research to include a house price-to-rent ratio at the individual level instead of a regional approximation as is done in this study. Incorporating factors that likely affect individuals’ monthly user costs of housing, such as income dependent tax advantages and mortgage preferences arguably provides more insight into how the costs of owning relative to renting affect the realisation or substitution of preferences to move into homeownership.

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