PBL WORKING PAPER 2 **Augustus 2012**

Once an outsider, always an outsider? The accessibility of the Dutch rural housing market among locals and non-locals

CAROLA DE GROOT[A,B,1], FEMKE B.C. DAALHUIZEN[A], FRANK VAN DAM[A] , CLARA H. MULDER[C]

a PBL Netherlands Environmental Assessment Agency, P.O. Box 30314, 2500 GH The Hague, The Netherlands

b Department of Geography, Planning and International Development Studies, University of Amsterdam, Nieuwe Prinsengracht 130, 1018 VZ Amsterdam, The Netherlands

c University of Groningen, P.O. Box 800, 9700 AV Groningen, The Netherlands

ABSTRACT One of the most pressing questions in the rural gentrification literature is whether rural residents face difficulties in finding a home within their locality due to the influx of more wealthy newcomers. In this paper, we investigate the extent to which intended local movers and intended non-local movers have realised their rural residential preferences in their preferred municipality. We perform multilevel multinomial logistic regression analysis on data from two housing surveys for the Netherlands that are enriched with register data from the longitudinal Social Statistical Database (SSD). Our results show that, despite their lower income, intended local movers are more likely to find homes within their preferred rural location than are intended non-local movers. Intended non-local movers move more often to a location other than that initially preferred, with urbanites facing a higher likelihood to move to an urban area. The findings suggest that ties to the residential environment are more important in successfully finding housing in one's preferred rural location than are financial resources.

KEYWORDS: Rural location preferences; actual location choice; local housing market pressure; longitudinal research.

[1] Corresponding author. E-mail addresses: carola.degroot@pbl.nl

1. Introduction

In recent decades, many Western European and North American rural geographical studies have addressed the popularity of living in rural areas (Jones et al., 2003 for the United States; McGrath, 2001 for Ireland; Stockdale, 2010 for Scotland). Also in the Netherlands, which is one of the most urbanised countries in the world, many urbanites have a preference for rural living (Van Dam et al., 2002). The combined popularity and scarcity of rural housing in parts of Western European countries (Heins, 2003 for the Netherlands; Shucksmith, 1991 for the UK), is reflected by high housing prices. In the Netherlands, rural areas within the urban sphere of influence particularly face a highly pressured housing market (Heins, 2003).

As several rural geographers have observed, it has frequently been claimed that rural residents have problems securing rural housing when the local housing market is under pressure (e.g., Hoggart, 1997; Stockdale et al., 2000). Through their higher income, non-locals have the opportunity to outbid rural residents (for example, see Cloke and Little, 1990; Smith and Phillips, 2001; Stockdale et al., 2000), which may lead to the displacement or out-migration of less affluent rural residents (Cloke and Little, 1990; Hoggart, 1997; McGrath, 2001; Shucksmith, 1991; Smith, 2002). Because of the selectivity of rural migration flows with members of a middle class group replacing less affluent rural residents, rural areas become "colonised" by the middle class (Cloke et al., 1995a; Day, 1989; Phillips, 1993). This process is often referred to as rural gentrification (Phillips, 1993; Phillips, 2004).

Nonetheless, irrespective of whether they are using qualitative or aggregated data on actual moves, studies analysing the mobility processes in rural areas, do not provide conclusive evidence for the general validity of the claim that rural residents have difficulty finding homes within their locality and are forced to move elsewhere (cf. Milbourne, 2007). This lack of evidence may be related to the fact that many studies on rural gentrification are area-specific and thus context-specific (see also Hoggart, 1997; Stockdale et al., 2000). This may make it tricky to generalise findings. As Lewis (1998) argues, by adopting a micro-behavioural perspective and paying attention to mobility intentions and actual mobility behaviour, rural geographical studies would gain a better understanding of why people move into and out of the countryside. Thus far, this type of study has rarely been performed (Lewis, 1998). Investigating rural mobility decisions from a micro-behavioural perspective essentially requires longitudinal data. As Smith (2002) remarks, the use of longitudinal data may improve our understanding of the migration dynamics of gentrification.

In this paper, we investigate whether rural residents indeed face relocation difficulties within their locality by analysing individual rural mobility decisions from a micro-behavioural perspective. Do intended local movers realise their rural location preference (i.e., their preference to move to a rural area within their current municipality) less often than intended non-local movers? Do income and the local housing market pressure matter regarding the extent to which intended local and non-local movers move to locations different from those they initially preferred? We will also pay attention to the question of whether rural residents are more inclined to express a preference to leave their municipality if the local housing market pressure is high.

We use data from two cross-sectional housing surveys for the Netherlands, the Housing Demand Survey (HDS) 2002 and the Housing Research Netherlands (HRN) survey 2006, that are enriched with individual register data from the longitudinal Social Statistical Database (SSD). By following individuals longitudinally, we try to make visible what remains invisible in studies that rely solely on data regarding actual moves. This study employs multilevel multinomial logistic regression of the realisation of rural

location preferences.

2. Theory and background

Whether it applies to a rural or an urban context, the individual mobility decision-making process includes the formation of a positive attitude towards moving (e.g., a desire, intention, or expectation), the search and evaluation of housing alternatives, and, finally, the decision to move or to stay. There are important conceptual differences between the various positive attitudes. Desires are often seen as unconstrained attitudes representing longings; that is, people may have a desire without considering the possibility to fulfil this desire (Crowder, 2001; Desbarats, 1983; Lu, 1998). Conversely, intentions and expectations, whereby expectations also indicate whether individuals think that the behaviour is likely to happen in the future (Sheeran, 2002), are thought to be constrained in the sense that they incorporate an individual's perception of the possibilities to change residence (e.g., Lu, 1998). Accordingly, intentions and expectations are considered to be more rational (cf. Davis, 1984) and better predictors of actual behaviour than desires in the sense of longings (Crowder, 2001; Lu, 1998).

This paper focuses on the realisation of rural location preferences among rural residents and urbanites intending to move. In line with De Jong (1999), this intention to move indicates that one is willing to change residence. This willingness is likely constrained. Related research, for example, has shown that lower income groups are less likely to be willing to move than higher income groups (De Groot et al., 2008). Although our measurement of a positive attitude towards moving is rather simple (see Section 3.1), it comes closest to the concept of an intention.

2.1 Preferences to move to or within rural areas

Preferences for rural living are often ascribed to the characteristics of rural areas such as peacefulness, space, greenness, and a slower pace of life (Bunce, 1994 for the United States; Halfacree and Boyle, 1998 for the United Kingdom). The positive and idealised image surrounding many aspects of the rural lifestyle, community, and scenery (e.g., Cloke and Little, 1997; Vepsäläinen and Pitkänen, 2010), is certainly not a new phenomenon; the "rural idyll" already emerged in the eighteenth century, when industrial barons bought up county estates and grand mansions in the Victorian countryside (Bunce, 1994). The rural idyll in particular, offers an explanation for rural preferences among urbanites (Bunce, 1994; Halfacree, 1994; Jones et al., 2003; Van Dam et al., 2002). However, rural residents' preferences can also be related to the rural idyll: rural experience generates attachment to the characteristics of rural areas (Feijten et al., 2008) and thus may affect residential preferences.

In line with the assumption that people take hampering and facilitating factors into account in the formation of intentions to move (for example, see Desbarats, 1983; Gardner et al., 1985), intended movers' location preferences are most likely accounted for perceived local housing market opportunities (compare Feijten et al., 2008). If people believe that it is difficult to realise their latent (rural) residential preferences in a certain municipality due to a high local housing market pressure, then they may not express a preference to move to this municipality (see also Section 2.2.2). Rural residents living in areas with a highly pressured housing market are, therefore, expected to express a preference for moving elsewhere more often than those living in rural areas with a less pressured housing market. However, such factors as emotional attachment to the locality (Fischer and Malmberg, 2001) and location-specific capital, which indicate the degree to which people are embedded (socially and economically) into their locality (DaVanzo, 1981), may make rural residents less willing to leave their municipality. In such cases,

an initial favourable attitude towards moving may not crystallise into an intention to move at all (Gardner et al., 1985).

2.2 Realisation of rural location preferences

If intended movers are unable to realise their rural location preference, two adjustment mechanisms can be expected. First, intended movers may choose to stay in their current homes. Second, intended movers may decide to move to a rural area in a different municipality than initially preferred or they may move to an urban area. The latter is often referred to as substitution: the acceptance of a new home that may fit some, but not all, of one's initial preferences (Goetgeluk, 1997). Which of the two alternatives will be chosen is highly dependent on personal circumstances. Personal circumstances not only determine whether it is possible to postpone the intended move but also the willingness to move to a location that does not comply with one's initial location preferences. Goetgeluk (1997) showed that most people are not willing to move to a location different from that initially preferred because location preferences are often strong. In line with this finding, McHugh (1984) showed for the United States that just 16 percent of those with a specific destination in mind relocated to a destination different from that initially preferred.

Intended local movers versus intended non-local movers

Studies on rural gentrification frequently claim that rural residents, so-called "locals", face difficulties realising a preference to move within their rural locality because they are outbid by more affluent non-locals (chosen as the all-embracing term for such descriptions such as "incomers", "newcomers", "non-residents", "returnees", and "outsiders" found in studies on rural gentrification, e.g., Cloke and Little, 1990; Shucksmith, 1991; Smith, 2002).

Although this assumption is, to say the least, quite persistent, there is no conclusive empirical evidence for its general validity. Based on in-depth interviews, the studies of McGrath (2001 for North West Connemara in Ireland) and Stockdale (2010 for Scotland) indeed suggest that rural residents have difficulties in finding homes within their locality and are forced to move elsewhere. Stockdale and colleagues (2000 for rural Scotland) and Guimond and Simard (2010 for Québec) find some qualitative evidence that rural residents have difficulties securing rural housing. At the same time, however, they did not find direct evidence that non-locals outbid the locals wishing to remain within the area (Stockdale et al., 2000) and that the in-migration of non-locals systematically leads to the displacement of the local population (Guimond and Simard, 2010). Analysing the aggregated data on actual moves, some studies suggest that rural areas have undergone a process of gentrification in the sense that they have become more "middle class" (Cloke and Thrift, 1987 for Southern England; see also Cloke et al., 1998). A study conducted by Van Dam (1996) for the Netherlands demonstrates that poorer groups are moving out while more affluent groups are moving into rural areas. Other studies, however, indicate that rural in-migration flows also include individuals who do not belong to the so-called middle class or service-class (Hoggart, 2007 for rural England and Wales; Phillips, 1993 for Wales; Stockdale, 2010). According to Hoggart (2007), this finding "raises potent question marks against messages that the rural working classes are being forced out of the countryside" (p. 314).

The main reason why locals may have problems competing with non-locals in the rural housing market relates to differences in financial resources (see also next Section). Several studies have indicated that non-local migrants tend to have higher incomes than long-term residents and local movers (Cloke et al., 1995b; Smith and Philips, 2001;

Stockdale et al., 2000). People originating from urban areas, in particular, have been shown to be wealthier than their rural counterparts (Hoggart and Henderson, 2005; Jones et al., 2003). If non-locals truly have more financial resources, they have more opportunities to outbid locals in the local housing market because financial resources widen the range of homes affordable to them (Mulder and Hooimeijer, 1999). If we do not account for these income differences, intended local movers may have greater difficulties in realising their rural location preference than intended non-local movers. This effect is particularly to be expected for those who prefer an owner-occupied home because access to the (regulated) rental housing sector depends not only on income but also on non-price criteria, such as waiting time and allocation rules. Moreover, in some rural areas in the Netherlands, access to the regulated rental sector is characterised by the preferential treatment of locals above non-locals (Haffner and Hoekstra, 2006).

Aside from non-locals' potential difficulties in gaining access to the regulated rental sector, several other non-financial factors may particularly hamper their realisation of rural location preferences. Intended non-local movers may have to put more time and energy into finding a suitable home that meets their preferences than intended local movers because they are less familiar with the local housing market. Not surprisingly, Lewis and Sherwood (1994) found that differences exist in the adopted search procedure in rural areas between local movers and urban migrants.

Furthermore, intended non-local movers may be more willing to move to a rural area in a different municipality than the one initially preferred if they cannot find a suitable home. Because intended non-local movers lack a direct residential tie to the preferred municipality, we propose that they have a less pronounced location preference than intended local movers. Furthermore, emotional attachment to the current locality (Fischer and Malmberg, 2001) and location-specific capital (DaVanzo, 1981) may make intended local movers more likely than intended non-local movers to remain in the current home rather than moving elsewhere if they face difficulties in finding a home in their municipality. Moving away may also be very costly for intended local movers because an individual's ability to conduct his or her daily activities is limited by various space-time constraints (Hägerstrand, 1970). Moving away may, therefore, imply that people need to perform at least some of their daily activities, such as going to school, shopping, and leisure activities, elsewhere and that it may become more difficult to visit family and friends on a regular basis.

To summarise, if we control for differences in income, we expect that intended local movers are more likely to realise their rural location preferences than intended non-local movers.

Influence of local housing market opportunities in rural areas

Although people are believed to take local housing market opportunities into consideration when forming their location preferences (see also Feijten et al., 2008), the local housing market may still directly affect the extent to which rural preferences are realised in the preferred municipality. Hampering factors may be more severe than anticipated (Desbarats, 1983). Alternatively, the local housing market opportunities (accounted for in the "mental calculus" leading to the formation of location preferences) may have changed since the formation of a preference to move to a rural area in a particular municipality.

It is widely recognised that rural areas differ in their popularity and thus in their local housing market opportunities (for example, see Elbersen, 2001; Jobes, 2000). A high demand for rural homes may result in high tension between supply and demand, which is reflected in high property prices (Visser et al., 2008). In areas where prices are

increasing, it becomes more attractive to build new homes (DiPasquale and Wheaton, 1996; Renes et al., 2006). However, in reality, there has been little housing development in rural areas in the Netherlands, particularly in areas with a highly pressured housing market, as restrictive spatial planning policies prevent the construction of housing in these areas (Priemus, 2007; Van Dam et al., 2002). Restrictive spatial policies do not apply only to the Netherlands. In Great Britain (Hoggart and Henderson, 2005), Spain (Elbersen, 2001), Norway, Sweden, and France (Gallent et al., 2002), restrictive spatial regimes also limit the development of rural housing. While spatial restrictive policies are undoubtedly helpful in protecting rural areas from further urbanisation, they also have a hampering effect on the housing opportunities in these areas.

Figure 1 gives a crude indication of the tension between supply and demand in rural areas in the Netherlands (for the definition of rural areas, see Section 3.2). Rural areas that lie within the urban sphere of influence are characterised by a highly pressured housing market. These rural areas are mainly concentrated near (or in) the Randstad, the most densely populated region that serves as the economic heart of the Netherlands, and in the central-south intermediate zone of the Netherlands. In contrast, peripheral rural areas in the north and east of the Netherlands and in the provinces Zeeland and Limburg are characterised by a less pressured housing market and thus have more housing market opportunities.

The higher the local housing market pressure, the greater difficulty in finding a suitable and affordable home. Therefore, intended movers who prefer to move to a rural area with a highly pressured housing market are hypothesised to be less likely to realise their rural location preference and more likely to move to a different location (either rural or urban) than initially preferred than those preferring to move to a rural area with a lower pressured housing market.

The influence of other individual characteristics

The extent to which intended local and intended non-local movers are able to realise their rural location preference is purportedly also affected by individual factors. Some individual factors are particularly relevant to the opportunities for finding a home on the local housing market whereas others relate to a willingness to substitute location preferences and the possibility to postpone the intended move.

Intended movers with high income levels have more resources to realise their rural location preferences and are therefore expected to be less likely to move to a different area than initially preferred. The same is hypothesised for the highly educated. As an indicator of career (and thus income) prospects, a high level of education may have a positive impact on the range of homes that are affordable (Mulder and Hooimeijer, 1999).

Some studies suggest that young rural residents, in particular, face difficulties in finding a home in their own municipality (for example, see McGrath, 2001; Shucksmith, 1991). However, in general, younger people are more likely to move than older people if they have an intention to do so (De Groot et al., 2011; Lu, 1998). Because it is not possible to realise a rural location preference without changing home, younger people may be more likely to move to a rural area in their preferred municipality than older people. If it is difficult to find a rural home in their preferred municipality, younger people are also hypothesised to be more likely to move to a location other than their initially preferred one because they are thought to be more flexible and therefore more inclined towards substitution (Goetgeluk and Hooimeijer, 1991). For the same reasons, we also hypothesise that those who are still living in the parental home or in shared

accommodation are more likely to move to a different location than initially preferred than current renters and homeowners.

Furthermore, the extent to which rural location preferences are realised likely depends on tenure preferences. Whereas owner-occupied homes are most often sold to the highest bidder, the eligibility for a rental home often depends on allocation criteria, such as position on a waiting list, age, and household size. Those preferring to rent may thus have greater difficulties in realising their rural location preferences than those preferring an owner-occupied home. At the same time, however, it is unlikely that they will move more frequently to a location different from that initially preferred because of the existence of waiting lists and other allocation criteria.

Finally, household situation and strength of intention to move are known to play a role in the extent to which people realise their intention to move, and are therefore accounted for.

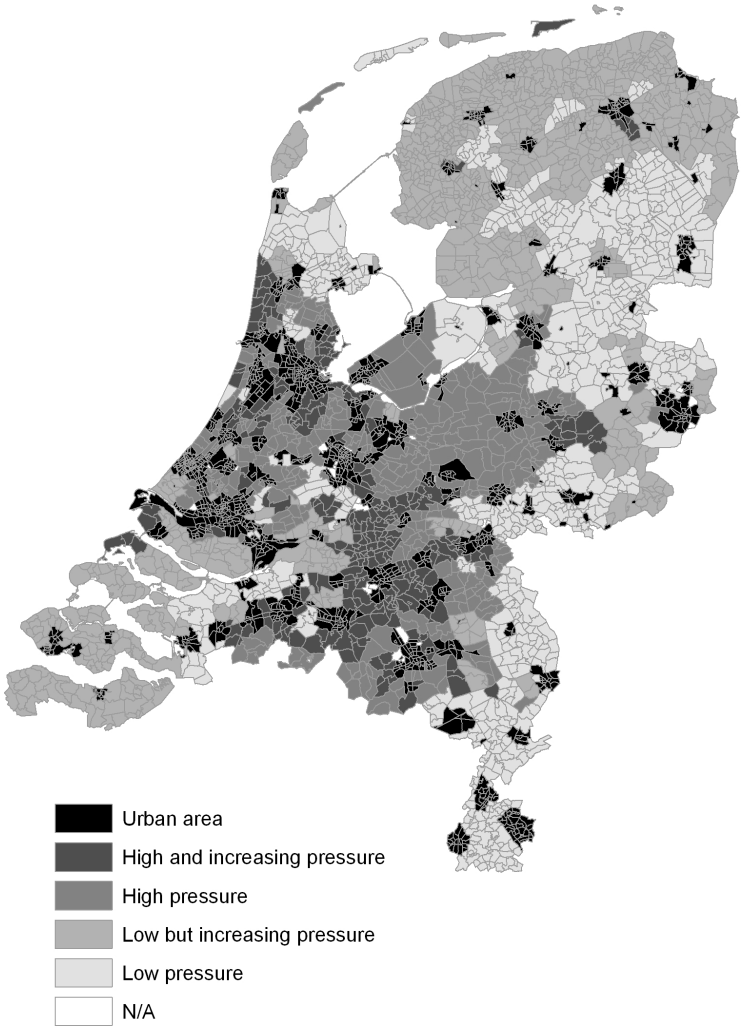

Figure 1 Housing market pressure in rural areas in the Netherlands, 1999-2007

3. Data and analytical strategy

3.1 Data

We use data from the Housing Demand Survey (HDS) 2002 and its successor the Housing Research Netherlands (HRN) 2006 survey. These large-scale surveys represent the Netherlands population, aged 18 years and over, excluding those living in institutions. The data contain detailed information regarding the socio-demographic and socio-economic characteristics of respondents, their current housing situation, and the municipality and four-digit postal code areas where respondent resides. The surveys also contain information regarding intentions to move within two years in which an intention to move is indicated by positive answers (i.e., "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?" (In Dutch: "Wilt u binnen twee jaar verhuizen?"). For intended movers, the surveys also contain information regarding the preferred municipality and type of residential environment. The preferred type of residential environment is derived from the four-digit postal code area to which intended movers prefer to relocate. In line with the theory that people become attached to the characteristics of the type of residential environment in which they are living, intended movers often express a preference for a type of residential environment that is similar to their current one (depending on the type, the percentage varies from 41 to 64). It should be stressed that the information regarding the exact preferred postal code area is not released to researchers. Approximately 25 percent of the respondents who stated a preference to move to a particular municipality did not state at all to which specific postal code area they prefer to move. For these respondents, the preferred type of residential environment is indirectly assigned. The assignment is based on answers to questions regarding housing preferences, such as preferences concerning the distance to a city centre and the dominant type of housing in the neighbourhood (ABF Research, 2010). Although this assignment is the best possible indicator of the preferred type of residential environment, we are uncertain whether all of those with an assigned rural preference would state for themselves such a preference if asked directly.

Data concerning housing market transactions in rural areas from 1999 to 2007 were linked to individual respondents using information regarding their current and preferred municipality. These data are provided by Statistics Netherlands and are available at the level of four-digit postal code areas. Because these housing surveys only release information indicating preferred municipalities and do not indicate preferred postal code areas, we aggregated the housing market transactions at the municipal level. Note that between 1999 and 2007, several changes in the municipality zoning occurred due to mergers; all data regarding housing market transactions are based on the municipal zoning map of 2007.

For the purpose of this research, the housing surveys were enriched with individual longitudinal register data from the Social Statistical Database (SSD) using a unique personal identification number that is included in both data sources (for more information, see Bakker, 2002). The SSD covers the entire population of the Netherlands and contains information about the population's mobility behaviour: it shows whether people have moved, the year and month of such relocation, and the postal code area to which the relocation occurred. The postal code area was used to determine the type of residential environment to which respondents have moved within two years time after the moment of interview (see Section 3.2). This newly created longitudinal data set facilitated the study of rural mobility decisions from a micro-behavioural approach without having difficulties in tracking respondents over time. The data set also enabled us to perform in-depth analyses while accounting for differences in area-specific

contexts. The latter ability is a major advantage over the many area-specific studies on rural gentrification because it allows generalisation of the micro-behavioural results for the Netherlands as a whole.

The enriched HDS 2002 and HRN 2006 data set contains information on 138,793 respondents. We excluded respondents who were expecting an involuntary move (for example because of impending housing demolition), respondents who had already found a new home, and respondents who, at the time of the interview, had intentions to emigrate. After this selection process, the research sample included 133,349 respondents: 84,864 living in urban areas, and 48,484 living in rural areas. We excluded a small number of rural residents (n = 77) because we were unable to define the level of housing market pressure for their residential areas (for more information, see Section 3.3) for the analysis of whether rural residents are more inclined to express a preference to move elsewhere if their local housing market pressure is high. To analyse the realisation of rural location preferences, we selected rural residents and non-rural residents who expressed a preference to move to a rural area (n = 10,261). A small number of respondents who died or emigrated within the two years following the interview (n = 162) and respondents who preferred to move into dependent housing, such as shared accommodation (n = 572), were excluded from the data set. We also excluded a small number of intended movers with rural residential preferences who indicated that they preferred to move to municipalities that lack rural areas (n = 129). Furthermore, we also excluded respondents with information missing regarding the preferred municipality variable (n = 1,824) and those who preferred to move to a municipality for which we were unable to define the housing market pressure due to a lack of housing market transactions (n = 157). Our final research sample includes 7,446 respondents.

3.2 Identifying rural areas

Although the Netherlands is a largely urbanised country, it does have areas that are predominantly rural (OECD, 2010). To identify rural areas, we adopted the typology of residential environments developed by ABF (ABF Research, 2010; Van Bremen and Jonkhof, 2003). In the housing surveys, the same typology is used to classify the type of preferred residential environment. The typology differentiates urban areas (centre-urban and outside centre-urban) and modest urban areas (green-urban) from rural areas, wherein the label *rural area* refers to small settlements and villages, and the open countryside. In the Netherlands, 2,728 of the 4,018 postal code areas can be classified as rural. Rural areas are characterised by having a low address density, small population size in the municipality to which the area belongs, and relatively few facilities (ABF Research, 2010; Van Bremen and Jonkhof, 2003).

A drawback to the typology is that areas with a predominantly industrial function (among the most illustrative ones being areas that belong to Schiphol airport and the harbour of Rotterdam) are often classified as "rural" solely due to their low address density. To address this deficiency, we took additional criteria concerning land use into account in our final assessment of whether an area is rural. Rural areas are characterised by the presence of agriculture, forests or nature areas (comprising more than 44.4 percent of the area) and relatively few business sites (less than 14.7 percent of the area). These selection criteria are based on a standard deviation from the mean land in use for green and business sites in rural areas as defined by ABF. In the end, 2,516 postal code areas were considered to be rural (see also Figure 1). To give an approximation of the size of a rural postal code area, the mean number of square kilometres is 11.96, and the mean population size is 2,527 inhabitants.

3.3 Variables

The dependent variable in the multivariate analysis and the contextual variables were derived from the SSD and housing market data of Statistics Netherlands, respectively. All other variables were derived from the HDS and HRN and refer to the time of the interview. The descriptive statistics of the dependent and independent variables are presented in Table 1.

The first important variable indicates whether or not rural residents intend to move, and if so, their preferred location. Four categories were distinguished: preference to move to a rural area within the current municipality (intended local movers), preference to move to a rural area in a different municipality, preference to move to an urban area, and no intention to move.

The dependent variable applies to respondents who expressed a preference to move to a rural area. It measures whether they moved in the two years since the interview was held, and if so, whether they realised their rural location preference. The variable consists of four categories: moved to a rural area in the preferred municipality, moved to a rural area in a different municipality than initially preferred, moved to an urban area, and did not move: the last category was chosen as the reference category in the multivariate analysis.

The first main independent variable indicates the level of housing market pressure in rural areas by municipality. The local housing market pressure is indicated by the pressure on the market for owner-occupied dwellings. Using information regarding the average selling price of homes in 2007 and the price increase or decrease (measured in percentages) in the period 1999-2007, four categories were discerned: low pressure, low but increasing pressure, high pressure, and high and increasing pressure. A high pressure indicates that the average selling price is above the national selling price of a rural home; an increasing pressure refers to a price increase that is above the national price increase of rural housing. For 11 municipalities, it was not possible to determine the housing market pressure due to a small number (fewer than 3) of transactions per year in the rural areas of these municipalities.

The second main independent variable indicates the place of origin for those preferring to move to a rural area, and was coded into three categories: intended local mover, intended non-local mover originating from a rural area, and intended non-local mover originating from an urban area. In our research sample, 927 respondents preferred to move from an urban to a rural area within their current municipality. These respondents were classified as intended non-local movers because they were not yet living in a rural residential environment.

Household income was coded in quartiles that were based on the income of all respondents included in the analyses. For 56 respondents, the household income was marked as "implausible" in the surveys; the mean household income value was substituted for these implausible values. The models include a dummy value to indicate whether substitution had taken place. The level of education refers to the highest educational level achieved and was categorised using three levels: up to lower secondary, higher secondary or medium vocational, and higher vocational or university. The category *up to lower secondary* also includes a small number of respondents with an unknown educational level; owing to the small number of respondents (approximately 20) it was not possible to identify the latter category separately.

Table 1 Descriptive statistics of dependent and independent variables (*N* = 7,446)

Categorical variables	**N**	**%**
Realisation of rural preferences (dep var)		
did not move	4719	63.4
moved to rural area in preferred municipality	1527	20.5
moved to rural area elsewhere	372	5.0
moved to urban area	828	11.1
Origin intended mover		
local	3756	50.4
non-local from other rural area	1375	18.5
non-local from urban area	2315	31.1
Income		
low	1759	23.6
middle-low	1833	24.6
middle-high	1912	25.7
high	1942	26.1
Plausibility household income		
plausible	7390	99.3
implausible	56	0.8
Educational level		
up to lower secondary	2686	36.1
higher secondary or medium vocational	2986	40.1
higher vocational or university	1774	23.8
Expected household composition		
single	2154	28.9
couple without children	2994	40.2
family with children	2298	30.9
Current housing situation		
starter	1977	26.6
renter	2511	33.7
homeowner	2958	39.7
Preferred tenure		
rental home	2901	39.0
owner-occupied home	4545	61.0
Strength of intention to move		
less strong	4643	62.4
strong	2803	37.6
Survey year		
2002	4119	55.3
2006	3327	44.7
Local housing market pressure		
low	1912	25.7
low but increasing	2464	33.1
high	1822	24.5
high and increasing	1248	16.8
Continuous variables	**Mean**	**S.D.**
Age	38.6	16.1
Age^2	1745.4	1483.3

The multivariate analyses also include the control variables age and the squared value of age to capture the potential non-linear effects of age. We centred the age variables on the mean so that the intercept is interpretable as the expected value of the outcome variable if the predictor, in this case age, has its mean value of 39. The expected household situation after the intended move has taken place was coded into three categories: single, couple without children, and family with children. The last category includes couples with children and one-parent families. The current housing situation was categorised into three categories: starter (people who are currently living with their parents or in shared accommodation), renter, and homeowner. We also

included a dummy variable indicating the preference to buy or rent a home. The variable of the strength of the subject's intention to move was derived from the same question used to determine the subject's intentions to move (see Section 3.1) and was categorised into two categories: those with a strong intention to move (which refers to people who *"Most certainly yes"* intend to move) and those with a less strong intention to move. Finally, a dummy variable was included to control for the survey year (2002 or 2006).

3.4 Analytical strategy

We first describe the extent to which rural residents intend to move and, if so, their location preferences. Making a distinction between intended local movers and intended non-local movers, we also investigate income differences between these groups. Furthermore, we investigate the extent to which intended local and non-local movers have realised their preference to move to a rural area in their preferred municipality; i.e., their rural location preference.

In the multivariate analyses, we investigate the realisation of rural location preferences using multilevel multinomial logistic regression models. Multilevel analysis allows a simultaneous examination of the effects of individual level and area level variables on individual level outcomes while accounting for the possible dependency of observations within areas (Diez-Roux, 2000). We estimate regression models in which we assume randomly varying intercepts across municipalities and fixed relationships between the dependent and independent variables. Thus, the relationships are assumed not to vary across municipalities. We start with a random intercept-only model that includes no explanatory variables to calculate the intraclass correlation (ICC). The ICC gives information about the proportion of the total variability in the dependent variable that is attributable to the area level. The ICC is equal to $\sigma^2_{u0} / [\sigma^2_{u0} + (\pi^2/3)]$, in which σ^2_{u0} represents the variance of the area level residual errors and $\pi^2/3$ represents the variance of the individual level residual errors, which is equal to the variance of a standard logistic distribution (for more information, see Grilli and Rampichini, 2007; Hedeker, 2003).

After the random intercept-only model, we estimate four regression models. The first model includes only the place of origin and the year in which the survey is held; thereafter, we add the local housing market pressure (Model 2), the socio-demographic and socio-economic background characteristics (Model 3), and the current and preferred housing situation, and the strength of the intention to move (Model 4). Although only the last model is presented, we also refer to the results of the previous models when noteworthy changes occurred in the parameters of variables after the inclusion of new variable(s). The multilevel multinomial logistic regression models are estimated with the GLLAMM (Generalized Linear Latent and Mixed Models) program using a multinomial logit link (mlogit) within the software package Stata (Rabe-Hesketh et al., 2004).

4. Results

4.1 Descriptive analyses

Preferences to move to and within rural areas

As presented in Table 2, only 19 percent of rural residents intend to move within two years compared to 27 percent of urbanites. About 32 percent of those with an intention to move have a preference to move to a rural residential environment. In most cases, they are already living in a rural area (more than 64 percent of them). Most rural residents with a preference to move to a rural area prefer to do so within their current municipality. As one would expect, urbanites with a rural preference often prefer to leave

their municipality.

A closer examination of the location preferences for rural residents intending to move suggests that there is no strong connection between the current local housing market pressure and the extent to which rural residents prefer to move outside their municipal boundaries (see Table 3). Both in rural areas with a highly pressured housing market and in rural areas with a lower pressured housing market, approximately 45 percent of rural residents who intend to move prefer to relocate to a rural area within their municipality. Similarly, in rural areas with a highly pressured housing market and in rural areas with a lower pressured housing market, approximately 80 percent of the rural residents have no intention to move at all. Likewise, among less affluent rural residents, no strong connection exists between the local housing market pressure and a preference to relocate outside the municipality. The less affluent rural residents, however, show a strong preference to move to urban areas. The popularity of urban areas among less wealthy rural residents may be traced back to the greater availability of small, affordable homes in cities (Dieleman and Mulder, 2002) or to the career opportunities that cities offer due to the presence of universities and higher vocational schools, and the greater availability of both high- and low-skilled jobs (see also Blaauboer, 2010). Less affluent rural residents relatively often prefer to move to an urban area, particularly in rural areas with a highly pressured housing market. Although it is tempting to relate this finding to the local housing market pressure, rural areas with a highly pressured housing market are often located near urban areas (see also Figure 1), a fact that likely affects respondents' location preferences.

Table 2 Mobility intention and location preferences among rural residents and non-rural residents, percentages

	Preference to move to…					No intention to move	N (100%)
	Rural area within municipality	Rural area elsewhere	Rural area in unknown location	Urban area	N (100%)		
Rural residents	44.8	17.9	9.2	28.1	9171	81.1	48484
Urban residents	4.0	8.4	3.4	84.1	23124	72.8	84865
Total	15.6	11.1	5.1	68.2	32295	75.8	133349

Table 3 Mobility intention and location preferences among rural residents with a low income and all rural residents by local housing market pressure, percentages

	Less affluent rural residents							All rural residents						
	Preference to move to…					No intention to move	N (100%)	Preference to move to…					No intention to move	N (100%)
	Rural area (with)in:			Urban area	N (100%)			Rural area (with)in:			Urban area	N (100%)		
	own muni.	else-where	unknown location					own muni.	else-where	unknown location				
Low	40.2	15.9	8.1	35.8	851	74.0	3275	44.3	17.9	9.2	28.5	2365	81.9	13082
Low but increasing	38.5	17.9	8.7	34.9	1140	73.9	4375	43.9	20.5	10.1	25.5	3147	81.6	17140
High	41.5	13.3	6.3	38.9	759	69.5	2491	46.6	15.6	8.3	29.5	2140	79.7	10531
High and increasing	38.9	12.4	7.5	41.1	547	72.1	1960	45.1	15.7	8.4	30.7	1507	80.3	7654

Realisation of rural location preferences

Table 4 reveals that rural location preferences are often not realised within two years. Of the 7,907 respondents with a preference to move to a rural location, approximately 63 percent did not move at all. Of those who changed residence, only 56 percent moved to a rural area in the preferred municipality; the remaining respondents moved to a rural area in a different municipality or to an urban area.

Table 4 Mobility behaviour and location choice of intended rural movers by several background characteristics, percentages.

	Did not move	**Moved to:**				**N (100%)**
		rural area in preferred municipality	**rural area elsewhere**	**urban area**	**N (100%)**	
Origin intended mover						
local	65.4	77.1	8.0	14.9	1298	3756
non-local from rural area	60.4	52.0	25.4	22.6	544	1375
non-local from urban area	61.8	27.5	14.7	57.9	885	2315
Local housing market pressure						
low	63.5	61.4	13.5	25.1	697	1912
low but increasing	61.2	60.5	13.3	26.3	956	2464
high	64.3	48.0	13.5	38.5	650	1822
high and increasing	66.0	49.3	14.9	35.8	424	1248
Income						
low	59.2	50.8	12.0	37.2	718	1759
middle-low	61.4	61.1	11.7	27.2	707	1833
middle-high	65.8	56.0	14.1	29.9	653	1912
high	66.6	56.1	17.1	26.8	649	1942
Total	63.4	56.0	13.6	30.4	2727	7446

Income differences account for the primary reason why intended local movers may have more difficulties in realising their rural location preferences than intended non-local movers. In line with previous research, intended local movers have, on average, a lower annual income (€ 24,863) than intended non-local movers originating from both urban areas (€ 27,350) and rural areas (€ 25,628). This finding indicates that intended non-local movers, especially those originating from urban areas, have the capacity to outbid intended local movers on the rural housing market. An analysis of variance (ANOVA) revealed significant differences in income (Brown-Forsythe F ratio: $F(2, 7443)=12.66$, $p<0.001$). A Games-Howell post-hoc test (used because the population variances and sample sizes were unequal; for more information, see Games and Howell, 1976; Jaccard et al., 1984) revealed that intended non-local movers originating from urban areas have significantly higher incomes than both intended local movers and intended non-local movers originating from rural areas.

Notably, and despite their less favourable financial situation, our results show that intended local movers more often realised their preference to move to a rural area in their preferred municipality – their current one – than intended non-local movers, especially in comparison to those originating from an urban area (77 percent versus 28 percent). Intended non-local movers moved more often to rural areas in a different municipality than initially preferred and to urban areas. An additional analysis (not presented) revealed that this pattern does not differ between areas with a highly pressured housing market and areas with a lower pressured housing market pressure.

Thus, although many intended non-local movers have the opportunity to outbid intended local movers, intended local movers have realised their rural location preferences more often.

The local housing market pressure appears to be relevant for the extent to which intended movers have realised their rural residential preferences in their preferred municipality (see Table 4). Higher housing market pressure is associated with both a higher incidence of not moving and with moving to an urban area. Therefore, those who preferred to move to a rural area with a highly pressured housing market not only moved less often, but, if they changed residence, they were also less often able to realise their rural location preferences.

Intended movers with a higher income moved less often than those with a low income. If they changed residence, however, they more often realised their rural location preferences. The less affluent movers, in particular, appeared to have difficulties in realising their rural location preferences as they moved more often to an urban area instead of the initially preferred rural area. This finding seems to provide some validation for the concern that individuals with a low income have difficulties securing rural housing and are excluded from living in the countryside.

4.2 Multivariate analyses

Table 5 shows the effect of individual characteristics and the local housing market on how intended movers have realised their rural residential preference in their preferred municipality.

The random intercept only model (result not shown in Table 5) shows a significant variance at the area level (0.0023; $p<0.001$) that yields an intra-class correlation coefficient of $0.0023 / [0.0023 + (\pi^2/3)] = 0.0069$. This finding implies that less than 1 percent of the variance in the realisation of rural residential preferences is attributable to the municipality level. The pressure on the local housing market is therefore expected to play only a modest role in the explanation of the extent to which rural location preferences are realised.

The extent to which people realise their rural residential preference in the preferred municipality is clearly affected by the intended mover's location of origin (first column in Table 5). Studies on rural gentrification have frequently proposed that rural residents are being outbid and subsequently displaced by more affluent non-locals. However, this study demonstrates that (before and after controlling for potential differences in sociodemographic and socioeconomic background characteristics such as household income) intended local movers are more likely to realise their rural location preferences than are intended non-local movers. This finding seems to be in accordance with various other studies, which did not find empirical evidence that non-locals are systematically outbidding or displacing locals who wish to remain within the area (Guimond and Simard, 2010; Stockdale et al., 2000). The second and third columns in Table 5 reveal that intended non-local movers are more likely to move to a rural area in a different municipality than they initially preferred and to urban areas than their counterparts, i.e., intended local movers. Whereas urbanites are more likely to move to an urban area, intended non-local movers originating from a rural area are more likely to move to a rural area in a municipality other than that initially preferred. In an additional analysis, we have estimated the model separately for rural areas with a high housing market pressure and for rural areas with a low housing market pressure (results not shown). Irrespective of the local housing market pressure, intended local movers are estimated to be more likely to realise their rural location preferences than intended non-local movers.

Table 5 Multilevel multinomial logistic regression of realising rural location preferences.

	Moved to rural area in preferred municipality			Moved to rural area in other municipality			Moved to urban area		
	B		**S.E.**	**B**		**S.E.**	**B**		**S.E.**
Individual characteristics									
Origin intended mover (ref: local)									
non-local from other rural area	-0.317	***	0.083	1.248	***	0.139	0.570	***	0.127
non-local from non-rural area	-0.937	***	0.084	0.633	***	0.141	1.471	***	0.097
Income (ref: low)									
middle-low	0.212	**	0.093	0.023		0.173	-0.209	*	0.117
middle-high	0.199	*	0.108	0.176		0.195	-0.043		0.135
high	0.206	*	0.123	0.218		0.217	-0.169		0.158
Implausible income	-0.545		0.390	-0.530		0.752	0.288		0.393
Educational level (ref: up to lower secondary)									
higher secondary or medium vocational	0.054		0.077	0.033		0.138	0.142		0.102
higher vocational or university	0.102		0.091	0.176		0.159	0.351	***	0.116
Age	-0.089	***	0.014	-0.050	*	0.029	-0.115	***	0.018
Age²	0.001	***	0.000	0.000		0.000	0.001	***	0.000
Expected household composition (ref: single)									
couple without children	0.197	**	0.081	0.308	**	0.153	0.067		0.103
family with children	0.052		0.102	0.083		0.180	-0.045		0.127
Current housing situation (ref: starter)									
rental home	-0.023		0.105	0.187		0.182	0.161		0.130
owner-occupied home	0.065		0.123	0.343		0.215	0.012		0.161
Preference to rent	-0.034		0.080	0.183		0.143	0.339	***	0.101
Strong intention to move	1.351	***	0.064	1.020	***	0.113	1.278	***	0.083
Survey year 2006	-0.048		0.064	0.212	*	0.112	0.280	***	0.082
Area level characteristics									
Local housing market pressure (ref: low)									
low but increasing	0.017		0.079	0.055		0.145	0.172		0.113
high	-0.295	***	0.090	0.026		0.158	0.415	***	0.115
high and increasing	-0.374	***	0.101	-0.049		0.173	0.239	*	0.128
Intercept	-1.589	***	0.140	-4.263	***	0.267	-3.720	***	0.194
Initial log likelihood	-7505								
Model log likelihood	-6622								
LR *Chi²* (60)	1767***								
Pseudo R^2	0.118								
N individuals	7446								
N areas	396								

* = $p < .10$; ** = $p < .05$; *** = $p < .01$

Although the inclusion of the spatial context variable does not add much explanatory power to the model (the *pseudo* R^2 shows a very modest increase from 0.04 to 0.05), the local housing market pressure significantly affects the extent to which intended movers realise their rural location preferences. As expected, preferring to move to a rural area with a highly pressured housing market decreases the likelihood of realising their rural location preferences. This effect is strongest in rural areas in which the housing prices are high and increasing. Furthermore, people who prefer to move to a rural area characterised by a high or increasing housing market pressure are significantly

more likely to move to an urban area than those with a preference to move to a rural area with a low housing market pressure. However, this effect needs to be interpreted with caution because rural areas with highly pressured housing markets are often located in the vicinity of urbanised areas, which may affect the actual location decision (see also Van Dam et al., 2005; see also Figure 1).

As hypothesised, people with higher incomes are more likely to realise their rural location preference than those with a low income (Table 5). People with a low income indeed seem to struggle to secure rural housing, as has also been suggested elsewhere (e.g., Hoggart, 1997). Although the descriptive analysis showed that people with a low income moved more often to an urban area than those with a higher income, our multivariate analysis shows that they are not significantly more likely to move to an urban area rather than not moving at all.

Remarkably, level of education only matters to the extent to which people have moved to an urban area (third column Table 5). The highly educated are more likely to move to an urban area than the lowest educated. For highly educated people it is presumably more attractive to move to an urban area instead of the initially preferred rural area because in the Netherlands, as elsewhere in the world, the bulk of professional jobs can be found in urbanised areas (Van Ham, 2005). In urban areas, it is therefore easier to exploit the monetary benefits associated with a high education. Highly educated people may also be attracted to urbanised areas because of the location-specific characteristics of cities, such as cultural and recreational amenities, lifestyle options, aesthetic assets, and an open and tolerant atmosphere (e.g., Florida, 2002; Marlet and Van Woerkens, 2005, Van Dam et al., 2005).

Although several studies suggest that young rural residents face difficulties in securing rural housing (for example, see McGrath, 2001; Shucksmith, 1991), this study demonstrates that young people are more likely to realise their rural location preferences than are their older counterparts. The probability of moving to a rural area in the preferred municipality is estimated to decrease until the age of 56 and to increase from that age on. However, younger people are also more likely than older people to move to urban areas and to rural areas in municipalities other than their initially preferred ones rather than not moving. This finding is not necessarily related to a lack of affordable rural housing in the preferred municipality. Young people may also opt to move to elsewhere if the local opportunity structure for jobs and education in the initially preferred municipality is limited (cf. Jones, 2001; McGrath, 2001).

Couples are more likely to realise their rural location preference than singles. Compared to singles, couples are also more likely to move to a rural area in a different municipality rather than staying in the current home. The extent to which rural location preferences are realised does not significantly differ between singles and families with children. Our findings might indicate that the rural housing market affords couples in particular with opportunities to find suitable and affordable rural housing. Future research is needed, however, to determine whether the circumstances of the rural housing market indeed offer an explanation for the different likelihoods of moving to rural housing found for couples, singles, and families.

The relative risk of realising a move to a rural area in the preferred municipality rather than not moving is estimated to be four times higher for those with a strong intention to move than for those with a less strong intention. People with a strong intention to move are, however, also more likely to substitute their rural location preferences: they are more likely to move to an urban area or to a rural area in a municipality other than initially preferred. These findings suggest that for those with a strong intention to move, it is most important to change residence within a short period

of time. Whether they also settle in a location that fully complies with their initial location preferences appears to be of secondary importance.

Remarkably starters on the housing market are not more or less likely to realise their rural location preferences than those who are already on the housing market. The likelihood to move to either an urban area or a rural area in a different municipality rather than not moving does not differ between starters, renters, and homeowners.

Finally, intended movers' preference for an owner-occupied home or a rental home does not have a significant effect on the extent to which rural location preferences are realised. Intended movers who prefer an owner-occupied home are, however, less likely to move to an urban area than those preferring a rental home. This finding corresponds with the fact that rural areas offer more opportunities to buy a home than urban areas. In the Netherlands, the rural housing market, particularly the social rental sector, is characterised by locals having preferential treatment over non-locals. In an additional analysis, we have tested whether our finding that intended local movers are more likely to realise their rural location preference than intended non-local movers especially applies to the rental sector by estimating separate regression models for those preferring to own and those preferring to rent. We find that irrespective of tenure preferences, intended local movers are more likely to realise their rural location preference than intended non-local movers.

5. Conclusion and discussion

In this paper, we investigated the realisation of rural location preferences in the Netherlands. We have addressed the question whether intended local movers have more difficulties in realising their preference to move to a rural area in their preferred municipality (i.e., their current municipality) than intended non-local movers. To follow respondents with a rural location preference over time with respect to their actual mobility behaviour and location choice, we created an innovative longitudinal data set that allowed us to account for both individual and area-specific characteristics.

Although many studies on rural gentrification allege that rural areas are becoming more "middle-class" and that rural residents are outbid by non-locals and subsequently forced to move to elsewhere, this study demonstrates that in spite of their lower income, intended local movers are far more likely to realise their rural location preference than are intended non-local movers. In accordance with the findings of Stockdale and colleagues (2000 for rural Scotland) and Guimond and Simard (2010 for rural Québec), our results suggest that, at least in the Netherlands, rural residents do not encounter more problems securing rural housing than non-locals.

It is shown that intended non-local movers more often move to a location other than that initially preferred; that is, urbanites are more likely to move to (or within) an urban area, and non-urbanites to a rural area in a municipality other than initially preferred. Their place of origin is an important determinant to which people realise or adjust their rural location preferences. It may be that the rural location preference of intended non-local movers is more fluid and less pronounced and that this makes them more willing to move to a location different than that initially preferred. Furthermore, factors such as place attachment and the existence of local ties may cause intended local movers to be more likely to remain in their current home rather than moving elsewhere than intended non-local movers. Although further research is needed to shed more light on the actual reasons, our findings help to clarify why (remote) rural housing projects partly aimed at attracting wealthy urbanites may fail, as has happened with project the Blauwestad in the north-eastern part of the Netherlands (Noordelijke Rekenkamer, 2010). Although many urbanites may express a preference for rural living, the

expression of a preference does not imply that people necessarily act upon that preference.

Although individual characteristics are more important for the extent to which rural location preferences are realised than the spatial context, the local housing market pressure does play a role. Intended local movers and intended non-local movers are less likely to realise their rural location preference in rural areas with a highly pressured housing market than in rural areas with a lower pressured housing market. The local housing market pressure is especially relevant to the extent to which intended movers, in particular intended non-local movers, have moved to an urban area instead of to an initially preferred rural one. Because differences in housing market opportunities may lead to variations in the opportunity to secure rural housing in different areas (see also Guimond and Simmard, 2010), researchers should be cautious in generalising the results of area-specific studies. Strikingly, the local housing market pressure is more important to the actual realisation of rural location preferences than to the formation of location preferences among rural residents. Our results suggest that there are no pronounced adjustment mechanisms that are triggered by the local housing market situation in the location preferences among rural residents.

A drawback of our study is that the preferred residential environment type is indirectly assigned for some respondents. Consequently, some of those who were assigned a preference for rural living may not state such a preference themselves if they were asked directly. Further, although we have seen that intended non-local movers are less likely to realise their rural location preferences than intended local movers, it remains unclear to what extent this can be traced back to differences in the constraints people face in realising their preferences, in the strength of the rural location preference, or to factors such as emotional place attachment and local ties. Further research is needed to determine the role of these factors.

Despite these limitations, our longitudinal research provides valuable new insights into rural mobility processes. Firstly, it reveals that patterns found at the aggregated level do not always provide sufficient information to draw conclusions at the individual level at which rural mobility decisions are made. Although studies conducted in the Netherlands have demonstrated that, at the aggregated level, poorer groups are moving out of rural areas while more affluent groups are moving in (Daalhuizen et al., 2011; Van Dam, 1996), our longitudinal analyses reveal that this phenomenon does not necessarily reflect the "displacement" of rural residents. Secondly, this study shows the importance of being cautious in assigning the struggles faced by rural residents in securing rural housing, as found in interviews, to processes such as rural gentrification or to displacement. For instance, if we had conducted a survey or in-depth interviews among rural residents living in a highly pressured rural area, we would have presumably found that rural residents, particularly the less affluent ones, face problems securing rural housing and that they feel forced to move to elsewhere. However, the micro-behavioural approach adopted in this study to investigate rural mobility decisions leads to different conclusions. This approach allowed us to make an objective comparison between the success rates of locals and non-locals, and revealed that rural residents are not systematically excluded from the countryside.

Although this study provides no other indication than that the claim that rural residents are forced from the countryside should be qualified if not confuted (cf. Hoggart, 2007), our findings do not mean that there is no reason for concern. Particularly in rural areas with a highly pressured housing market (most often rural areas within the urban sphere of influence), it is relatively difficult for both intended local and non-local movers to realise rural location preferences. Furthermore, there are indications that the less

affluent in particular face greater difficulties in finding affordable and suitable homes in rural areas than do the more affluent. First, less affluent rural residents more often prefer to move to an urban area. Second, less affluent intended movers are less likely to realise their rural location preferences than more affluent intended movers. The adjustment mechanisms in the formation and realisation of rural location preferences among the less wealthy suggest a lack of suitable and affordable homes in rural areas for those with low incomes. As Hoggart (1997) remarks, the problems faced by the less affluent on the rural housing market seem to be merely "centred on the absence of social housing provision, rather than social class changes" (p. 485). Therefore, although there seems to be no reason to boost the preferential treatment of locals over non-locals in the housing allocation system in rural areas, our results do call attention to the difficulties that those with low incomes, both intended local movers and intended non-local movers, face in the realisation of their rural location preferences.

References

ABF Research, 2010. Woonmilieutypologie [Typology of residential environment types], retrieved from http://vois.datawonen.nl on the 29th of November 2010.

Bakker, B.F.M., 2002. Statistics Netherlands' approach to social statistics: The Social Statistical Dataset. OECD Statistics Newsletter 11, pp. 4-6.

Blaauboer, M., 2010. Family Background and Residential Choice. Uitgeverij BOX Press, Oisterwijk.

Bunce, M., 1994. The Countryside Ideal. Anglo-American Images of Landscape. Routledge, London.

Cloke, P., Phillips, M. and Thrift, N., 1995a. The new middle classes and the social constructs of rural living. In: Butler, T. and Savage, M., Editors. Social Change and the Middle Classes. UCL Press, London, pp. 220-240.

Cloke, P., Goodwin, M., Milbourne, P. and Thomas, C., 1995b. Deprivation, poverty and marginalization in rural lifestyles in England and Wales. Journal of Rural Studies 11, pp. 351-366.

Cloke, P. and Little, J., 1990. The Rural State? Limits to Planning in Rural Society. Oxford University Press, Oxford.

Cloke, P. and Little, J., 1997. Introduction: other countrysides? In: Cloke, P. and Little, J., Editors. Contested Countryside Cultures: Otherness, Marginalisation and Rurality. Routledge, London, pp. 1-17.

Cloke, P., Phillips, M. and Thrift, N., 1998. Class, colonisation and lifestyle strategies in Gower. In: Boyle, P. and Halfacree, K., Editors. Migration into Rural Areas. Theories and Issues. Wiley, Chichester.

Cloke, P. and Thrift, N., 1987. Intra-class conflict in rural areas. Journal of Rural Studies 3, pp. 321-333.

Crowder, K.D., 2001. Racial stratification in the actuation of mobility expectations: Microlevel impacts of racially restrictive housing markets. Social Forces 79, pp. 1377-1396.

Daalhuizen, F., Boschman, S., De Groot, C. and Van Dam, F., 2011. Strijd om de plattelandswoning? [Battle for rural housing?]. Tijdschrift voor de Volkshuisvesting 17, pp. 49-54.

DaVanzo, J., 1981. Microeconomic approaches to studying migration decisions. In: De Jong, G.F. and Gardner, R.W., Editors. Migration Decision Making. Multidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries. Pergamon Press, New York.

Davis, W.A., 1984. The two senses of desire. Philosophical Studies 45, pp. 181-195.

Day, G., Rees, G. and Murdoch, J., 1989. Social change, rural localities and the state: The restructuring of rural Wales. Journal of Rural Studies 5, pp. 227-244.

De Groot, C., Manting, D. and Boschman, S., 2008. Verhuiswensen en Verhuisgedrag in Nederland [Intentions to move and mobility behaviour in the Netherlands]. PBL, The Hague/Bilthoven.

De Groot, C., Mulder, C.H., Das, M. and Manting, D., 2011. Life events and the gap between intention to move and actual mobility. Environment and Planning A 43, pp. 48-66.

De Jong, G.F., 1999. Choice process in migration behaviour. In: Pandit, K. and Withers, S., Editors. Migration and Restructuring in the United States. Rowman & Littlefield Publishers, Lanham, MD, pp. 274-293.

Desbarats, J., 1983. Spatial choice and constraints on behavior. Annals of the Association of American Geographers 73, pp. 340-357.

Dieleman F.M. and Mulder, C.H., 2002. The geography of residential choice. In: Aragones, J.I., Francescato, G. and Garling, T., Editors. Residential Environments: Choice, Satisfaction and Behavior. Bergin and Garvey, Westport, CT, pp. 35-54.

Diez-Roux, A.V., 2000. Multilevel analysis in public health research. Annual Review of Public Health 21, pp. 171-192.

DiPasquale, D. and Wheaton, W.C., 1996. Urban Economics and Real Estate Markets. Prentice-Hall, New Jersey.

Elbersen, B., 2001. Nature on the Doorstep. The Relationship Between Protected Natural Areas and Residential Activity in the European Countryside. Alterra, Wageningen.

Feijten, P., Hooimeijer, P. and Mulder, C.H., 2008. Residential experience and residential environment choice over the life-course. Urban Studies 45, pp. 141-162.

Fischer, P.A. and Malmberg, G., 2001. Settled people don't move: On life course and (im-)mobility in Sweden. International Journal of Population Geography 7, pp. 357-371.

Florida, R., 2002. The economic geography of talent. Annals of the Association of American Geographers 92, pp. 743-755

Gallent, N., Shucksmith, M. and Tewdwr-Jones, M., 2002. Housing in the European Countryside. Rural Pressure and Policy in Western Europe. Routledge, London.

Games, P.A. and Howell, J.F., 1976. Pairwise multiple comparison procedures with unequal N's and/or variances: A Monte Carlo study. Journal of Educational and Behavioral Statistics 1, pp. 113-125.

Gardner, R.W., De Jong, G.F., Arnold, F. and Cariño, B.V., 1985. The best-laid schemes: An analysis of discrepancies between migration intentions and behaviour. Population and Environment 8, pp. 63-77.

Goetgeluk R.W., 1997. Bomen over Wonen. Woningmarktonderzoek met Beslissingsbomen [Trading off housing preferences: housing market research with Decision Plan Nets], Faculty of Geographical Sciences, University of Utrecht, Utrecht.

Goetgeluk, R.W. and Hooimeijer, P., 1991. Household formation and access to housing in the Netherlands. Paper prepared for the conference "Housing Policy as a Strategy for Change", Oslo, 24th -27th June, 1991.

Grilli, L. and Rampichini, C., 2007. A multilevel multinomial logit model for the analysis of graduates' skills. Statistical Methods and Applications 16, pp. 381-393.

Guimond, L. and Simard, M., 2010. Gentrification and neo-rural populations in the Québec countryside: Representations of various actors. Journal of Rural Studies 26, pp. 449-464.

Haffner, M.E.A. and Hoekstra, J.S.C.M., 2006. Housing allocation and freedom of

movement: A European comparison. Tijdschrift voor Economische en Sociale Geografie 97, pp. 443-451.
Hägerstrand, T., 1970. What about people in regional science? Papers of Regional Science Association 24, pp. 7-21.
Halfacree, K.H. and Boyle, P.J., 1998. Migration, rurality and the post-productivist countryside. In: Boyle, P.J. and Halfacree K.H., Editors. Migration into Rural Areas: Theories and Issues. Wiley, London, pp. 1-20.
Halfacree, K.H., 1994. The importance of the 'rural' in the constitution of counterurbanisation: Evidence from England in the 1980s. Sociologia Ruralis 34, pp. 164-169.
Hedeker, D., 2003. A mixed-effects multinomial logistic regression model. Statistics in Medicine 22, pp. 1433-1446.
Heins, S., 2003. The Netherlands. In: Gallent, N., Shucksmith, M. and Tewdwr-Jones, M., Editors. Housing in the European Countryside. Routledge, London, pp. 60-70.
Hoggart, K., 1997. Home occupancy and rural housing problems in England. Town Planning Review 68, pp. 485-515.
Hoggart, K., 2007. The diluted working classes of rural England and Wales. Journal of Rural Studies 23, pp. 305-317.
Hoggart, K. and Henderson, S.R., 2005. Excluding exceptions: housing non-affordability and the oppression of environmental sustainability? Journal of Rural Studies 21, pp. 181-196.
Jaccard, J., Becker, M.A. and Wood, G., 1984. Pairwise multiple comparison procedures: A review. Psychological Bulletin 96, pp. 589-596.
Jobes, P.C., 2000. Moving Nearer to Heaven. The Illusions and Disillusions of Migrants to Scenic Rural Places. Preager Publishers, Westport, CT.
Jones, G., 2001. Fitting homes? Young people's housing and household strategies in rural Scotland. Journal of Youth Studies 4, pp. 41-62.
Jones, R. E., Fly, J.M., Talley, J. and Cordell, H.K., 2003. Green migration into rural America: the new frontier of environmentalism? Society and Natural Resources 16, pp. 221-238.
Lewis, G.J., 1998. Rural migration and demographic change. In: Ilbery, B., Editor. The Geography of Rural Change. Pearson Education Limited, Harlow, pp. 131-160.
Lewis G.J. and Sherwood, K.B., 1994. Rural Mobility and Housing. Working Papers 7-10, Department of Geography, University of Leicester.
Lu, M., 1998. Analyzing migration decisionmaking: relationships between residential satisfaction, mobility intentions, and moving behavior. Environment and Planning A 30, pp. 1473-1495.
Marlet, G. and Van Woerkens, C., 2005. Tolerance, aesthetics, amenities or jobs? Dutch city attraction to the creative class. Discussion Paper Series nr: 05-33, Utrecht School of Economics of University Utrecht, Utrecht.
McGrath, B., 2001. "A problem of resources": defining rural youth encounters in education, work & housing. Journal of Rural Studies 17, pp. 481-495.
McHugh, K.E., 1984. Explaining migration intentions and destination selection. Professional Geographer 36, pp. 315-325.
Milbourne, P., 2007. Re-populating rural studies: migrations, movements and mobilities. Journal of Rural Studies 23, pp. 381-386.
Mulder, C.H. and Hooimeijer, P., 1999. Residential relocations in the life course. In: Van Wissen, L. and Dykstra, P., Editors. Population Issues: An Interdisciplinary Focus. Plenum Press, New York, pp. 159-186.

Noordelijke Rekenkamer, 2010. Eindrapport Blauwestad [Final report Blauwestad]. Noordelijke rekenkamer, Assen.

OECD, 2010. National Place-based Policies in the Netherlands, retrieved from: http://www.oecd.org/dataoecd/34/5/45901622.pdf on the 5th of December 2010.

Phillips, M., 1993. Rural gentrification and the processes of class colonisation. Journal of Rural Studies 9, pp. 123-140.

Phillips, M., 2004. Other geographies of gentrification. Progress in Human Geography 28, pp. 5-30.

Priemus, H., 2007. System innovation in spatial development: Current Dutch approaches. European Planning Studies 15, pp. 991-1006.

Rabe-Hesketh, S., Skrondal, A. and Pickles, A., 2004. GLAMM Manual. University of California, Berkeley.

Renes, G., Thissen, M. and Segeren, A., 2006. Betaalbaarheid van Koopwoningen en het Ruimtelijk Beleid [Affordability of owner-occupied dwellings in spatial policy?]. NAi Publishers/RPB, Rotterdam/The Hague.

Sheeran, P., 2002. Intention-behavior relations: a conceptual and empirical review. European Review of Social Psychology 12, pp. 1-36.

Shucksmith, M., 1991. Still no homes for locals? Affordable housing and planning controls in rural areas. In: Champion, T. and Watkins, C., Editors. People in the Countryside. Paul Chapman Publishing, London, pp. 53-66.

Smith, D.P., 2002. Extending the temporal and spatial limits of gentrification: A research agenda for population geographers. International Journal of Population Geography 8, pp. 385-394.

Smith, D.P. and Phillips, D.A., 2001. Socio-cultural representations of greentrified Pennine rurality. Journal of Rural Studies 17, pp. 457-469.

Stockdale, A., 2010. The diverse geographies of rural gentrification in Scotland. Journal of Rural Studies 26, pp. 31-40.

Stockdale, A., Findlay, A. and Short, D., 2000. Repopulation of rural Scotland: Opportunity and threat. Journal of Rural Studies 16, pp. 243-257.

Van Bremen, K. and Jonkhof J.F., 2003. Groen Wonen in Stad en Land [Green living in city and countryside?]. Alterra, Wageningen.

Van Dam, F., 1996. The turnaround after the turnaround after the turnaround? The urban-rural migration wave in the Netherlands, 1973-1994. Paper prepared for the IGU-conference "Land, Sea and Human Effort", The Hague, 4th -10th August, 1996.

Van Dam, F., Bijlsma, L., Van Leeuwen, M. and Pálsdóttir, H.L., 2005. De LandStad: Landelijk Wonen in de Netwerkstad [The LandStad: rural living in the network city]. NAi Publishers/RPB, Rotterdam/The Hague.

Van Dam, F., Heins, S. and Elbersen, B.S, 2002. Lay discourses of the rural and stated and revealed preferences for rural living. Some evidence of the existence of a rural idyll in the Netherlands. Journal of Rural Studies 18, pp. 461-476.

Van Ham, M., 2005. Job-related migration in the Netherlands. The role of geographical access to employment in a polynucleated urban region. Journal of Housing and the Built Environment 20, pp. 107-127.

Vepsäläinen, M. and Pitkänen, K., 2010. Second home countryside. Representations of the rural in Finnish popular discourses. Journal of Rural Studies 26, pp. 194-204.

Visser, P., Van Dam, F. and Hooimeijer, P. 2008. Residential environment and spatial variation in house prices in the Netherlands. TESG Journal of Economic and Social Geography 99, pp. 348-360.