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Residential mobility patterns of older people

(Working paper, to be completed)

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Abstract:

The increasing share of older people in western societies is of special concern. One issue is the housing situation of this group. In Sweden one hypothesis is that older people now, and in particular the baby boomers, are more open to change residence to accommodate for changing life-styles and poorer health when ageing than earlier generations. This assumption includes the idea that older people to a larger extent will change tenure from homeownership to tenant co-operative housing or rental housing. Rental and tenant co-operative housing typically includes more service for residents and will lessen the burden of housing maintenance. There are studies pointing to such a residential mobility trend among seniors but quantitative tests are wanted. In this study the total cohorts born in the 1920s, 1930s and 1940s and their mobility patterns are analyzed as to what characterize the stayers and movers respectively and where and to what extent older people do move. Do they for example compete for the same type of apartments as young entrants on the housing market? Planning processes in particular are to be informed by such an analysis. In this paper we analyze the residential mobility patterns among older people, i.e., pensioners, and pensioners to be, using a register database, Geoswede, comprising the total Swedish population.

Keywords: Older people, housing, registered data, residential mobility, Sweden

Introduction

In many western societies the increasing share of older people is of special concern for the future and Sweden is no exception. One issue in this debate is housing for this group. One hypothesis is that in Sweden older people will increasingly exchange their single family house in the suburb for an apartment in a central location. This assumption includes the idea that older people change tenure, from homeownership to tenant co-operative housing¹ or rental housing. Rental and tenant co-operative housing typically includes more service for residents although many researchers agree older people will stay healthy longer than before (Sou, 2002). On the other hand older people will live longer with health problems that they would not have survived earlier. These factors will influence older people's behaviour, preferences and needs in the housing market and emphasises the need for studies on the

¹ A tenant co-operative is bought and sold on the regular housing market but in addition rent is paid monthly and a new owner has to be approved by the board of that tenant co-operative.

relationship between older people's demands and the availability of suitable housing in the market.

Traditionally older people are known to be less mobile than any other group and residential mobility rates are very low, older people remain in a current dwelling as long as possible and only a minority of this group moves (Fransson, 2004). Attachment to place is important to older people for a number of reasons not least as the area in which they have lived for a long time is well known to them (Parmelee and Lawton, 1990). The great majority lives in ordinary housing and only 6% of the above 65 years old live in assisted housing (Larsson, 2006). However, the increase in the share of older people and the discussion about life-style changes among the young old, in particular the baby-boomers, also raises questions on changing patterns of residential mobility. As older people will constitute a large group of the Swedish population (Andersson, 2004a), their choice of housing will effect the situation in the housing market. Older people's preferences and housing plans for the future have been investigated and show an increasing interest in residential mobility in older age (Abramsson and Niedomysl, 2008; Tillberg Mattsson, 2002). These are principally qualitative studies indicating a growing residential mobility trend, from a single family house in a suburb to an apartment closer to the city centre, but quantitative tests are still lacking to confirm such a trend. Most older people are well housed as regard space and standard, and their housing costs will in most cases increase rather than be reduced if they move. Thus, it is most likely that a majority will remain where they are rather than move although some factors indicate higher mobility rates. As the baby boomers in particular have moved for study or labour market purposes earlier in life and in addition have a higher divorce rate indicating a household break up and a subsequent move, another move in old age may not be a great obstacle to this group (Håkansson, 2004; Malmberg: 2004). This in turn can increase the incentives to move.

In this study the total cohorts born in the 1920s 1930s and 1940s and their mobility patterns in 2001 and 2006 are followed. Most people do not move but stay put, in particular older people, but why do some older individuals move? Where do they move to, and what residence do they leave behind? What characterize the movers and stayers respectively, and do older movers compete for the same apartments as young entrants on the housing market? Especially, planning processes in municipalities are to be informed by such an analysis. Senior housing, i.e., housing specifically aimed at older households, in multifamily dwellings is being built, but in sufficient amounts? In this paper we analyze the residential mobility patterns among pensioners, and pensioners to be, using a register database, Geoswede, comprising the total Swedish population.

The paper begins with a presentation of the aims and the related research questions that is the onset of the study presented. The data, method and methodological considerations are described in the following section. Thereafter the study is placed in a housing market context focusing also on mobility and older people before the studied cohorts are presented. Subsequently the result section follows describing the characteristics of the stayers and movers and providing a more detailed analysis of the subgroup of movers moving from owner occupation to tenant co-operatives and rental housing. In the final section the results are discussed.

Aim and questions

The aim of this study is to identify recent residential mobility patterns of older people. Research questions are raised as to what characterizes older movers and stayers as regards

age, income, education level and family situation. The time for when a move is conducted can be related to when the children move out, the result of a partner passing away, a divorce, as health fails and income decreases or when the work place no longer is decisive for the choice of residential location. Another set of questions relate to where older people move when they move, geographically as well as to what type of tenure. A change of location may be one aim of the move but the aim can as well be the result of wish to change tenure or housing size.

Another interesting issue is that the years to come will in addition to a growth in the share of older people bring an increase in the number of young people entering the housing market (Scb, 2006a). Thus, another question is related to the possible competition for housing if the two groups are interested in the same type of locations and housing type. If older people decide to leave their single family homes in the outskirts of the cities to move to rental apartments in central city locations, a type of housing preferred by young individuals, this may be the case.

Data and method

To fulfil the aim of this study the mobility is followed of individuals born in the 1920s, 1930s, and the 1940s between 2001 and 2006 using a register data base. The main source for the analysis presented in this paper is the Geoswede database held by the Institute for Housing and Urban research at Uppsala University. The Geoswede database covers all individuals that have lived in Sweden sometime between 1990 and 2006. It contains yearly, individual-level data from the Swedish population register combined with data on education, residence, employment, employer, family relations, and income. The data makes it possible to characterize cohorts of older people in order to describe the movements of a large and important group in the Swedish society.

For this study a selection of individuals born between 1920 and 1949 was made. The number of individuals born in 1920 to 1949 diminished naturally from 2001 to 2006 as a result of deaths (595 507). Also, the total population was reduced by missing values for residence number (largest reduction), house type, juridical owner form and east/north coordinates. These are variables that were all prerequisites for the study, (all in all about 400 000 individuals had missing data). The statistical drop off reflected the main population when the variables age, sex and foreign born were analysed.

Methodologically the study apart from descriptives includes models to test the outcome of moving or staying (logistic regression models). Thus, it is possible to give characteristics of movers and stayers among all older people in Sweden. In addition, sub-groups such as those moving from home ownership to tenant co-operative housing or rental housing will be analysed. In order to exemplify moves in time and space an important method to report results are maps. Due to the very large data material, case studies of a number of Swedish municipalities are used. In this study we can discern differences between the different cohorts.

A limitation of the chosen method is that movers' preferences and choices concerning moves (or for that matter the decision to stay put) are not known. The study is limited to the traces of their actions in the database such as; payment of pension, death of a spouse, age or children at home and other possible factors, which is on the other hand a unique possibility offered by the data available. The actual reason(s) for a move might thus be a different thing, like adjusting to new ideals, circumstances or a want of something new. We will therefore draw

on existing interview studies of older people and their housing preferences to complement this study.

An increase (or the contrary) in mobility among older people cannot be established as the study is limited to moves between 2001 and 2006. Longer time series of data are needed if we want to establish (or contradict) such a trend. In this study we concentrate on the questions of who, where and whereto

Swedish housing market, migration and older people

In Sweden the public housing sector boomed during the 1960s and into the 1970s. Between 1951 and 1970, 42% of new construction was public rental housing. From 1945 until 2005, owner-occupied housing increased from 38 to 43 per cent of the housing market. The almost simultaneous building of rental multifamily housing and owner occupied housing is seen as a paradox in Swedish housing history, between the government strongly promoting municipal rental housing and households wanting and building owner-occupied housing (Almqvist, 2004). A special feature of Sweden's tenure structure is the relatively strong position of the tenant co-operative housing sector that increased from 4 to 17 per cent of the housing market in 60 years. As already implied above, in Sweden municipal rental housing does not function as social housing in the sense that it does in many other countries. Access to municipal rental housing is not in principle regulated by needs and income testing, although in practice less-advantaged groups are over-represented in the sector. The security of tenure in renting is well-protected in Sweden: rental contracts are for an unlimited time, regardless of whether they are for private or public rented dwellings. The tenancy agreement for unlimited time together with negotiated rents makes the rental sector in Sweden particularly secure and attractive. The corporate rent-setting system (from 1968) forces private landlords to comply with this system, set by the public/municipal housing company according to criteria of quality, location, etc. when they revise their rents. The system attempts to protect the tenants against large rent increases and to prevent the development of a differentiated rental market. (Andersson, 2008).

Residential mobility and migration varies across the life course and older people move to a small extent compared to younger age groups. Most remain in a dwelling where they have lived for a long time (Abramsson, Fransson, 2004; Abramsson, 2003; Abramsson, Borgegård and Fransson, 2000a; Abramsson, Borgegård and Fransson, 2000b). Several authors have argued that attachment to place is important to older people not least as it is one as a way of keeping the past alive. Also the place remains constant during times of changes and it is an area where they can maintain a sense of continued competence (due to the fact that it is well known to them) (Parmelee and Lawton, 1990). A recent study indicates lower rates of place attachment among baby boomers that moved to different neighbourhoods during years of family formation, as "gentrifiers" or "ordinary" city movers (Bonvalet and Ogg, 2007). As many in the Swedish baby boom cohort made similar moves due to labour market reasons this could influence residential mobility rates also in Sweden. Although ownership is the most preferred housing type in Sweden other types of tenure are not considered inferior but instead convenient during different times in life (Andersson, Naumanen, Ruonavaara and Turner, 2007). Some recent studies do indicate a slight increase in residential mobility (Abramsson and Niedomysl, 2008) and a growing interest among older people to move to more comfortable housing involving less maintenance. Suburban housing that was suited for families with children may loose in attractiveness when children have moved out, the space is no longer needed and maintenance of house and garden becomes strenuous. A wish to spend

time and money on travelling, summer houses etc is also evident as is the wish to move when still healthy and able (Abramsson and Niedomysl, 2008; Tillberg Mattsson, 2002). Although the majority of people aged over 55 live in owner occupation and only among the very old, those aged over 80, rental tenure becomes more common than owner occupation (Andersson, 2004b; Larsson, 2006). During the last years there has been a growing interest for new housing concepts aimed at older age groups, such as senior housing, in the housing market. These are mainly tenant co-operatives and rental apartments (Paulsson, 2008). Not specifically aimed at seniors but constructed according to their needs single family housing is also marketed towards this group. The houses are small, 70–100 m² and have small gardens with very little maintenance needed.

The demographic situation in Sweden clearly shows an increase in the number and the share of older people in the coming years, in the year 2040 the number of individuals aged 65 and over will be 2.5 million compared to today's 1.6 million. Most older people remain relatively healthy (Sou, 2002) and the problems normally associated with this group such as increasing costs for home care and medical care will not be evident until well into the 2020s as a result of the subsequent increase in the share of very old individuals (Lindh and Malmberg, 2000). Older people constitute a larger share of the population outside the growth areas (the major cities), and this is where housing alternatives aimed at this group are available only to a limited extent although a vocational spread is taking place.

The cohorts and their housing

This section begins with statistics describing the chosen cohorts in 2001 and 2006 and their housing situation. The sample size for both 2001 and 2006 is 2 220 121 and adjusted to follow the very same individuals over time. The ages of the chosen cohorts born between 1920 and 1949 ranges from 52 years of age to 81 for the oldest in 2001, see Table 1. The same individuals will in 2006 be 57 to 86 years. This age-gap makes important separate estimates for people born in the 1920s, 1930s and 1940s respectively because they may conduct differently regarding mobility.

Table 1. Cohorts birth year and their respective ages in 2001.

Birth year	1920	1929	1930	1939	1940	1949
Age in 2001	81	72	71	62	61	52

The baby boomers, those born in the 1940s are by far the largest group constituting almost half the sample (see Table 2). This is a well known fact in Sweden and is the focus of many debates, not only concerning housing but pensions, health care and the labour market issues. Concerning ages in the chosen population for this paper, the oldest group in 2006 (86 years) is the smallest. Those born in 1946 (60 years) is the largest group followed by those born in the years 1945–49.

Table 2. Frequency and proportions for the three cohorts in 2001 and 2006.

	Frequency	Percent
1920	463 260	21

1930	676 428	30
1940	1 080 433	49
Total	2 220 121	100

In 2001 the dominating tenure form among older people was privately owned homes, 60%, see total in column of privately owned homes in Table 3. Also, when looking at the three cohorts separately this was the dominating form of tenure for each cohort. Compared to the Swedish population at large these three cohorts are overrepresented in privately owned homes. The average for all Swedes in 2005 was 43% in this tenure form (Andersson, 2007, p. 232).

However, five years later, in 2006, the situation had slightly changed. Privately owned homes was still the dominating tenure form, but had diminished in favour of tenant co-operative housing (apartments). Tenant co-operative housing had seen an increase with about 3 percentages in 5 years, Table 4. Tenant co-operative housing is mostly multifamily dwellings. This change in patterns of tenure is the first evidence of movers among this group of older people. (An even larger share of the elderly had moved as this measures only those *changing* tenure form and not those moving *within* a tenure form. For the actual mobility patterns we have studied the change of peoples' associated geographical coordinates in the results section below.)

Table 3. Tenure forms among the studied cohorts in 2001

		Privately owned homes	Tenant co- operative	Municipal rental	Private rental	Single family other	Total
1920	Count	222 661	102 099	67 501	67 214	3 785	463 260
	% of Total	10	5	3	3	0	21
1930	Count	411 480	113 596	75 271	71 847	4 234	676 428
	% of Total	19	5	3	3	0	30
1940	Count	700 726	149 530	108 934	113 661	7 582	1 080 433
	% of Total	32	7	5	5	0	49
Total	Count	1 334 867	365 225	251 706	252 722	15 601	2 220 121
	Total %	60	16	11	11	1	100

Table 4. Tenure forms among studied cohorts in 2006.

		Privately owned homes	Tenant co- operative	Municipal rental	Private rental	Single family other	Total
1920	Count	184 999	117 194	83 089	73545	4433	463260
	% of Total	8	5	4	3	0	21
1930	Count	371798	138569	85607	76007	4447	676428
	% of Total	17	6	4	3	0	30
1940	Count	676807	179872	110248	107220	6286	1080433
	% of Total	30	8	5	5	0	49
Total	Count	1 233 604	435635	278944	256772	15166	2 220121
	Total %	56	20	13	12	1	100

Potentially the number of older people in privately owned homes moving somewhere else can be large. There were 1 233 604 persons in 2006 which equals 56% out of the chosen cohorts, see total count of people in privately owned homes in Table 4. To find out more about them their characteristics and residential mobility patterns between 2001 and 2006 are analysed.

Results

The cohorts presented above mainly remain in their current housing but a minority moves and in the following we will analyse the cohorts according to our first set of questions. The questions concerning the characteristics of the movers as opposed to those of the stayers.

Movers and stayers - Who are they?

First in this section some facts on the residential mobility of our chosen cohort are presented. Compared to the minor movements between housing tenure forms found above, a total of 23 percent of the older people changed dwelling between 2001 and 2006,

Table 5. It should still be noted that the majority of the elderly, 77%, stayed in the same dwelling between 2001 and 2006².

Table 5. Moves between 2001 and 2006 among older people.

	Frequency	Percent
Stayers	1 705 483	77
Movers	514 638	23
Total	2 220 121	100

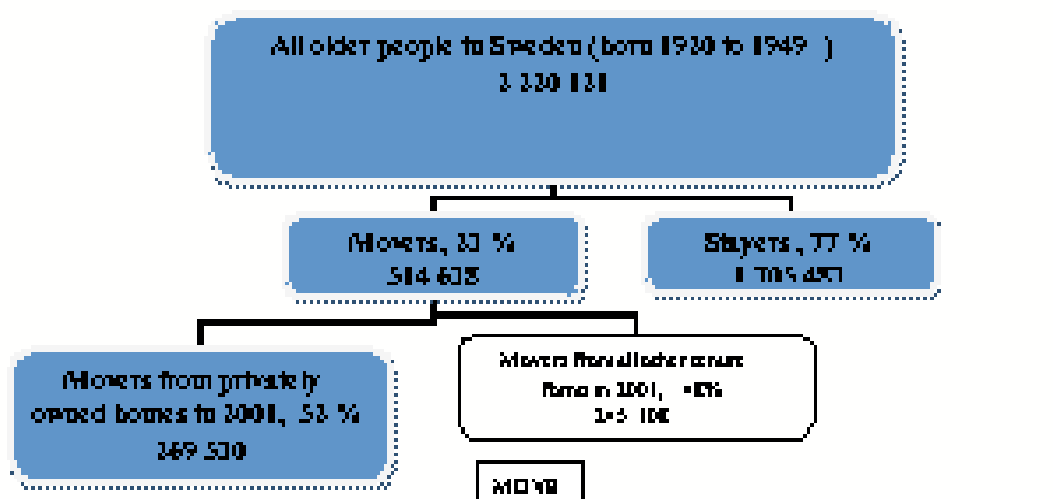
A first analysis of different cohorts in our material shows that people born in the 1940s more often move than those born in the 1920s and 1930s. However, the differences in percentages that moved are small, (less than 2 percentages). There might be an explanation in that the youngest are adjusting to the coming times as a pensioner. This will be further explored. (It should be noted that there might be those who have moved several times during the five years between 2001 and 2006.)

In Table 6 the population of older people is divided into movers and stayers. So called movers in 2001 are those who moved at some point between 2001 and 2006, that is their tenure form *before* the move. For the year 2006 we can observe the distribution of movers over tenure forms *after* the move. Among the movers in 2001 the largest group resided in privately owned housing (52%) (column Movers in 2001 and row private homes, Table 6). After the move, some remained in the sector of privately owned homes but notably 130 538 of the movers from private homes had left for other tenure forms, see Figure 1. So, what tenure forms did they move to? The total distribution of the group of movers had changed in favour of tenant co-operative housing as well as municipal and private rental housing. There was no longer a majority of the movers in private homes. They changed their housing situation in the expected direction that is, from single family homes to apartments and changed tenure form from privately owned into tenant co-operation and rented housing, see Table 6.

² Stayers still lived at the same north-east coordinates 100x100 meters.

Table 6. Stayers and movers in their respective housing tenure in 2001 and 2006.

		2001			2006		
		Stayers	Movers	Total	Stayers	Movers	Total
Private homes	Count	1 065 337	269 530	1 334 867	1 058 334	175 270	1 233 604
	% of all stayers/movers	62	52	60	62	34	56
Tenant co-operative housing	Count	275 974	89 251	365 225	296 714	138 921	435 635
	% of all stayers/movers	16	17	16	17	27	20
Public rental housing	Count	175 969	75 737	251 706	175 629	103 315	278 944
	% of all stayers/movers	10	15	11	10	20	13
Private rental housing	Count	178 192	74 530	252 722	164 483	92 289	256 772
	% of all stayers/movers	10	14	11	10	18	12
Other single family homes	Count	10 011	5 590	15 601	10 323	4 843	15 166
	% of all stayers/movers	1	1	1	1	1	1
Total	Count	1 705 483³	514 638	2 220 121	1 705 483	514 638	2 220 121



Analysed populations in bold

Figure 1. Selection of populations for study. Analysed populations in bold.

In the above, the amount of movers and tenure forms of movers were described, but who are they compared to the stayers? In a brief and first comparison of the populations of movers

³ The number of stayers have shifted somewhat between tenure forms (42 000 individuals) in the population of stayers 2001 to 2006 due to the criteria of moves, that is; changing north –east coordinates 100x100 meters. The shift of tenure form for these individuals have taken place within the same 100x100 meters and is not considered a move in this study, neither does it affect the results of the total population.

and stayers, we could observe some slight differences between the movers and stayers, just by comparing their means.

Stayers more often had children at home (mean) in both 2001 and 2006. This preliminary result seems reasonable since households having children at home need more space and presumably still are in a family oriented life phase, including proximity to children's school, friends and habitual environment. Stayers were also to a greater extent than movers, married in 2006, 60 percent compared to 49 percent. 15 percent of the stayers had experienced the death of a spouse, among the movers the figure was 19 percent. These differences between stayers and movers are also in the expected direction in our material even if further analyses are needed. In the case of ages there were no real differences between stayers and movers.

Stayers also had a higher income from work. It fits well with the stayers' lower rates of financial support from early retirement both in 2001 and 2006. Stayers were consequently still working to a greater extent, than movers. Also, this brief comparison of means showed stayers to have slightly lower educational levels corresponding to earlier research (Abramsson, 2003). Stayers had a lower sum of capital income in 2001 and 2006 which does not correspond to their higher incomes. However, it might be that movers with higher educational levels earned more during their labour career, have savings and most importantly have lower debts, particularly on housing.

The first comparisons of means are complemented with a logistic regression to further explore the characteristics of migrating older people. We have included variables tested above and that we assume affect the outcome of whether an older person moves or stays. Consequently the dependent variable to be explained in the logistic regression equation is whether older people in our population moved or stayed between 2001 and 2006 of the total population of 2 220 121 individuals. The variables tenure form, income and children at home can for example be thought of as the propensity towards moving or not (the measured event in this case). The methods used are forward stepwise and backward entering of variables to compare if the same variables were saved in the model. The result is expressed in estimates of odds ratios for moving or staying ($\exp(B)$ = estimated odds ratio).

The results showed most interestingly significant results for tenure forms. The probability of moving was higher for all other tenure forms compared to owner occupation, see Table 7. Or spelled out the other way around; the probability of moving was lowest for people in owner occupation. This result was tested for tenure form in 2001. However, it is still a fact that most older people stayed in privately owned occupation concerning the actual numbers and therefore both the potential movers from this sector as well as those moving from it are of interest. Also, the result may be compared to the pattern of residential mobility among Swedes in general where earlier studies found the same result (Fransson and Borgegård, 2002; Lundin, 1991).

Having children at home in 2006 reduces the probability to move, a result of the logistic regression which was also found in the above comparisons of means.

An education variable divided into 6 levels was tested (see appendix of all variables for levels of education). The tendency was a higher probability of moving among individuals with higher education levels. The probability increased for every additional level of education in the model.

Whether an individual was born, in Sweden or abroad, was significant for the probability of moving. Being born abroad increased the probability of moving whereas being born in Sweden decreased the probability of moving. Men had a similar (but slightly higher) probability of moving than women in our population. The result is usually that women have a higher probability of moving. However, our result is too close to no difference at all between the sexes to discuss a contradictory result.

Concerning the three cohorts those born in the 1940s had the highest probability of moving. Thereafter the older people born during the 1930s had a higher probability of moving than those born during the 1920s according to our analysis.

The area of the property was included as we thought it reasonable to believe that an old and big garden or land area to care for would be an important factor in the decision to move or stay. However the variable measuring the square metres of property did not change the outcome. The same thing, not indicating a ratio change of the odds of moving, was the case with the variable of income from work, sum of capital income and early retirement (Table 7).

As for the variable marital status results from the logistic regression were mixed. Married individuals constituted the reference group in the equation and it turned out that only unmarried individuals move less than married individuals in our population. This could be an effect of unmarried older people not losing a partner and having to adjust to the fact of being widowed. It might also be the effect of business as usual, no nest leaving children leaving too much space behind. Further, widowed and divorced older people were more likely to move than the reference category of married older people (Table 7).

Table 7. Probability of moving for older people. (n= 2 220 121).

	Variables in the Equation	Sig.	Exp(B)
Sex	Male	,000	1,053
Cohort	Cohort (1930)	,000	1,072
Ref. cohort 1920	Cohort 1940)	,000	1,210
Country of birth			
Ref. Swedish	Foreign born	,000	1,105
Tenure form	Tenant co-operative housing 2001	,000	1,350
Ref. private homes	Municipal rental housing 2001	,000	1,683
	Private rental housing 2001	,000	1,678
	Other housing 2001	,000	2,414
Educational level	Compulsory Education, 2001	,000	1,120
Ref. non-completed compulsory	Upper secondary school, 2001	,000	1,115
	University or University College < 2 years, 2001	,000	1,216
	University or University College >= 2 years, 2001	,000	1,221
	PhD programs, 2001	,000	1,276
Area of property	Property area 2001	,000	1,000

Income	Income 2006	,000	1,000
Marital status 2006 Ref. Married	Widowed	,000	1,556
	Unmarried	,000	,911
	Divorced	,000	1,627
	Registered partnership	*	*
	Divorced partner	*	*
	Surviving partner	*	*
Early retirement	Early retirement 2006	,000	1,000
Children home 2006	Children home 2006	,000	,857
Capital income 2006	Sum of capital income 2006	,000	1,000

**As for the forms of cohabitation Registered partnership, Divorced partner, Surviving partner the cases were too few to allow for interpretation of the results.*

Interestingly, the most important variable⁴ for the probability of moving was tenure form in 2001. In most test models including tenure form this was the case. Why this is the so can be discussed. Either it is simply a very important factor for older people in deciding whether they will move or not as they may envisage maintenance in old age for example. However, these models did not include only home owners but all older people. It is more likely that it is a reflection of something else. Firstly, tenure forms are highly segmented in Swedish cities. When moving in order to change housing situation this most often includes a change of tenure form to enter another type of residential area. The importance of tenure form might therefore indicate that tenure form is a proxy/covering the importance of moves into different neighbourhoods.

To explore the importance of tenure form, a regression model without it was tested. It showed no difference in the odds ratios for the variables in the equation compared to the earlier model in Table 7.

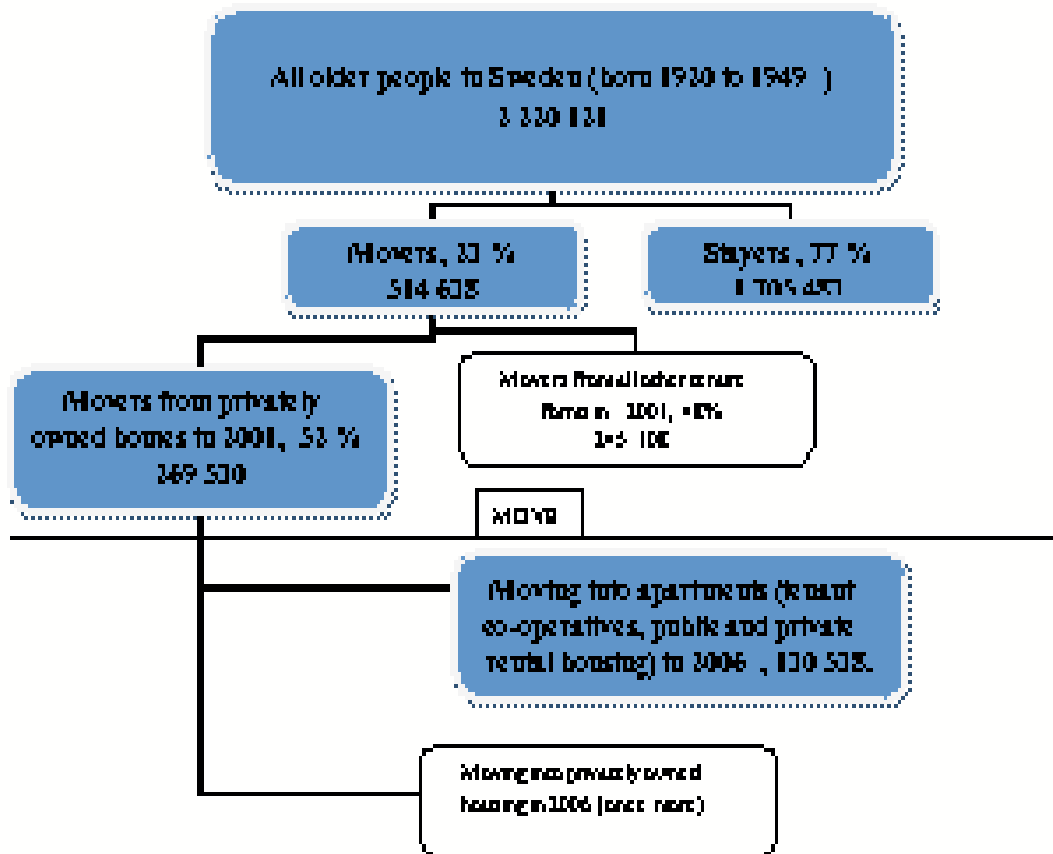
As expected the following most important variables in the model were marital status, level of education and children at home. Perhaps more interesting in the discussion of older people's migration patterns is the importance (fifth most important) of size of the area of the property. In the model it did not lead to estimates in any direction for the probability of moving. If the hypothesis that older people want to escape the burden of a garden/land area was to be confirmed this result is against such ideas. However, this was the size of the property in 2001.

Older people moving from single family housing to an apartment

In order to approach the hypothesis of older people leaving private single family housing for apartments in central locations several steps of selecting individuals were made, see Figure 2. From the total population of people born in 1920-1949 movers between 2001 and 2006 were selected, that is 23%. In the next step individuals moving from private single family homes into other tenure forms were chosen (130 538 individuals). The three other tenure forms were in this case; tenant co-operative housing, in which 50% of earlier homeowners chose to enter, municipal rental housing 24% and lastly private rental housing for 26% of earlier homeowners. It is perhaps surprising to find half of these movers in tenant co-operative

⁴ Measured as the change of 2 Log Likelihood if term was removed from model.

housing, but there are possible explanations. Firstly, when selling a property, tax regulations encourage another immediate housing investment. Secondly, many see tenant co-operative housing as an investment and thirdly, moving from privately owned housing the situation of owning again may be of equivalent independence and degree of freedom (but with the drawbacks of maintenance in old age) (Andersson, 2008). All three alternatives (tenant co-operative housing, public and private rental) most often means living in an apartment in multifamily housing, but there are exceptions such as semi-detached row housing also in these tenure forms.



Analyzed population of total

Figure 2. Selection of populations for study.

Lower marriage rates in 2006 than in 2001 (54 and 68 percent respectively) for movers from owner occupation to apartments are reasonable, but they are overall higher than for the total group of movers. The reason might be that they are moving from a housing situation which in its size, price and form is preferred by couples (often married). In addition the push factors from owner occupation might be a divorce or the death of a spouse thereof the lower marriage rate in 2006.

Table 8. Marital status in 2001 and 2006 for movers from private housing to tenant co-operative housing, public rental housing or private rental housing

Marital status 2001				Marital status 2006			
		Frequency	Percent			Frequency	Percent
Valid	1 Married	88 753	68	Valid	1 Married	70522	54
	2 Widowed	17974	14		2 Widowed	31331	24
	3 Unmarried	6573	5		3 Unmarried	6367	5
	4 Divorced	17219	13		4 Divorced	22293	17
	Total	130519	100		5 registered partnership	19	,0
Missing	System	19	,0	6 divorced partner	4	,0	
				7 surviving partner	2	,0	
Total		130538	100	Total		130538	100

In order to discover further differences or similarities between all movers and the selected group of movers from privately owned housing, means for several variables were compared. Ages were exactly the same in both groups of movers, on average they were 68 years. The mean of number of children at home was very low for both groups (less than one child).

While the similarities between the two groups of movers dominated in the comparison, income from work did differ. Those moving from owner occupation to an apartment had a slightly higher income in 2006. They also had a lower average of early retirement and did have a higher average sum of capital income in 2006. These three economic aspects (income from work, early retirement and sum of capital income) were different in the same way also in 2001. The movers from private housing seemed 'better off' while comparing the two groups of movers. The difference between the two groups increased between 2001 to 2006 considering sum of capital income, this might be a result of the selling of a private house, an income the other group did not have. Also, which is of some relevance for their higher income is a higher average educational level for movers from owner occupation.

Detailed mobility patterns of homeowners

Lastly, as a third step, in order to approach the hypothesis, the 130 538 movers from privately owned homes to rental or tenant co-operative apartments were analysed as to their geographical location of origin and destination.

When analysing the data for long distance moves a sum of 34 103 older people, (26%) who left their house for an apartment crossed at least one municipal⁵ border. This small group of movers were even better off than all homeowners moving to apartments. They had a higher income from work, a higher sum of capital income and a slightly higher educational level. Moves between counties⁶ were even fewer, 11 801 or 9% were performing such, often long distance , moves.

Movers between counties have preferred Stockholm, Västra Götaland and Malmö counties. A concentration to the biggest cities in this small group (11 108) of long distance movers. 57% (74 133) of the former home owners had moved across a parish border. This number is

⁵ There is a total of 290 municipalities in Sweden.

⁶ There is a total of 25 counties in Sweden.

somewhat higher than for all movers (43%) but is not surprising when taking the segmented housing market into account.

Case studies of three municipalities

To investigate closely where older people move case studies of three municipalities were performed. Below is a short presentation of the housing market and tenure forms of the three municipalities. Thereafter mobility patterns are accounted for.

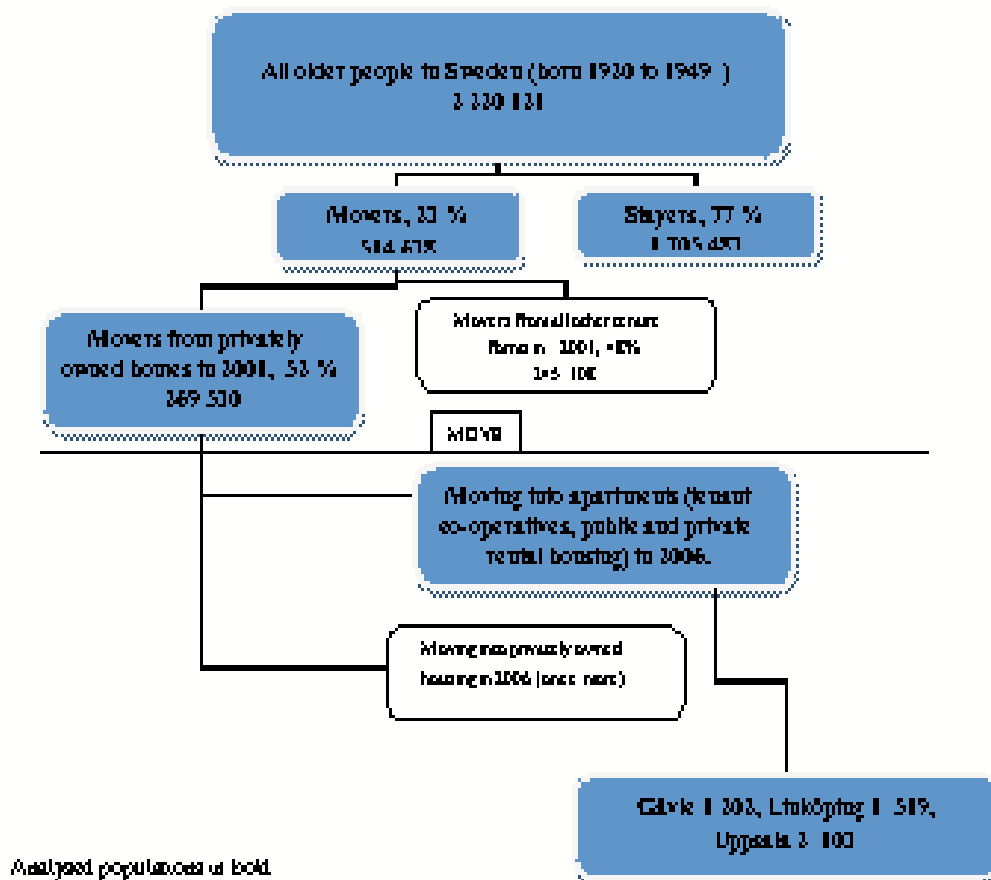


Figure 3. Selection of populations for study.

The Gävle housing market has a large municipal housing sector in relation to the general Swedish pattern. The housing stock in Sweden is divided as follows; 45% of the stock is owner occupation, 16% tenant co-operatives, 37% municipal rented housing, and 2% other. Uppsala municipality has a large tenant co-operative sector (35% of the total housing stock) and a comparatively small sector of owner occupation (24%). Linköping has a large

The municipality of Linköping is known for having*

It is thus striking to see the correspondence between the already existing size of tenure forms and the distribution of older people in these municipalities. For older people in our study a move from a privately owned house had different outcomes in accordance to the housing

market in the respective municipalities. Also the number of movers corresponded proportionally to the total population of the municipality.

A total of 1 202 of the movers from privately owned housing to other tenure forms were found in Gävle. In Gävle where rental housing is common 47% chose this tenure form compared to 36% in Linköping. In Uppsala the share of older people moving into rental housing was even smaller, 15%. The total amount of older people moving from a single family house to an apartment increased with the size of the population in the municipality, see Table 9. When comparing the shares of older people in our sample those who moved to tenant co-operative housing followed the local housing market pattern. Uppsala with a large tenant co-operative housing market did have the largest share moving to this tenure form, 85%.

Table 9. Movers from homeownership in their respective tenure form in 2001 in Gävle, Linköping and Uppsala.

Tenure form 2006 Gävle		
	Frequency	Percent
Tenant co-operative housing	638	53
Municipal rental housing	331	28
Private rental housing	233	19
Total	1202	100
Tenure form 2006 Linköping		
Tenant co-operative housing	972	64
Municipal rental housing	165	11
Private rental housing	382	25
Total	1519	100
segment 2006 Uppsala		
Tenant co-operative housing	1778	85
Municipal rental housing	116	5
Private rental housing	209	10
Total	2103	100

Not surprising, there was a clear pattern of centralisation to the municipal core among movers from single family housing to an apartment in Gävle, Linköping and Uppsala. One could foretell this pattern because most apartments are located in the central parts of the municipality. However, with the majority moving to tenant co-operatives there is also a possibility of moving to the outskirts of the city, in terraced houses for instance. Despite the segmentation of dwellings there is a concentration to the central districts of the cities.

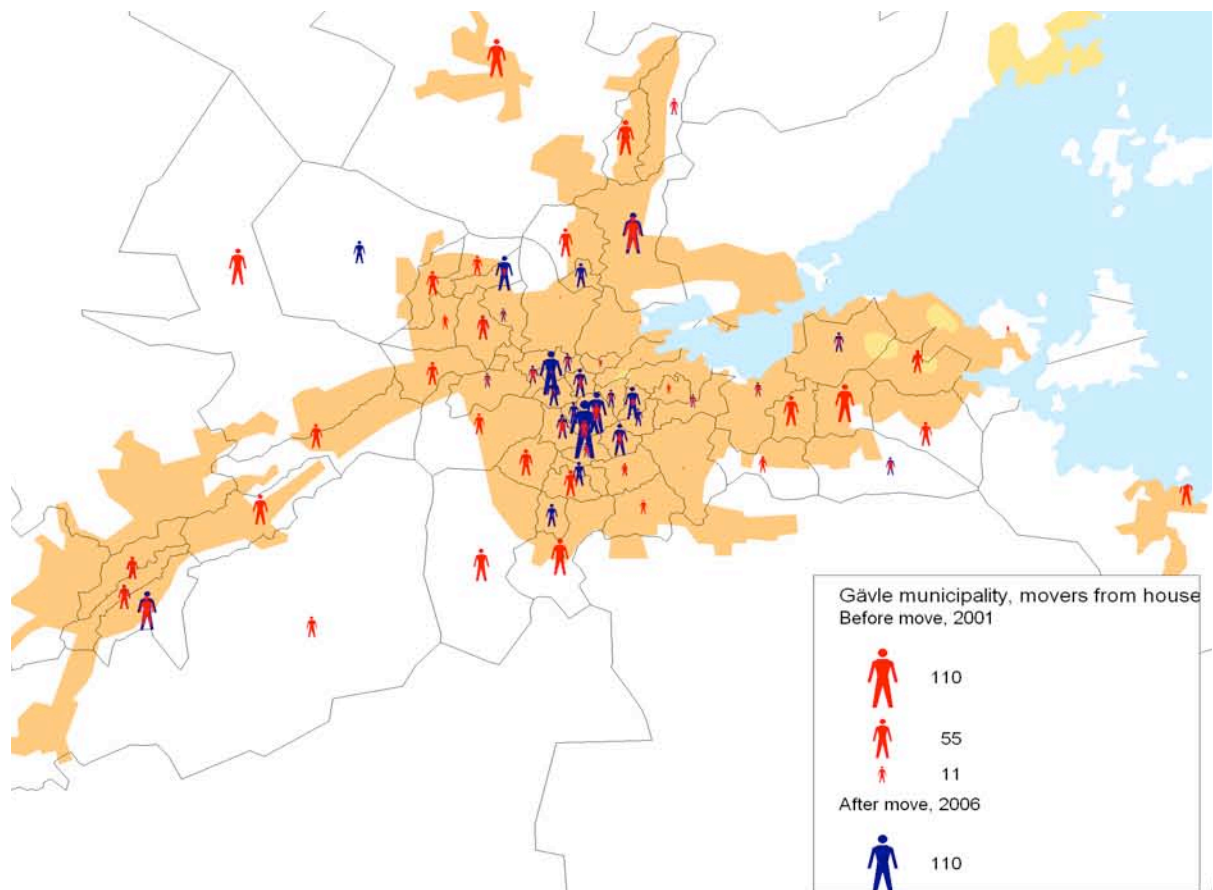


Figure 4. Gävle, SAMS-areas and red symbols for residential area in 2001 and blue symbols for residential area in 2006. For sample of older people moving from private housing to other tenure forms in 2006.

The pattern of residential mobility for the total sample of movers is however important as a comparison. This is also done for the case municipalities. For all movers, including those moving once again to private homes, the pattern of moving ‘closer to town’ was there but not that as evident, see

Figure 5.

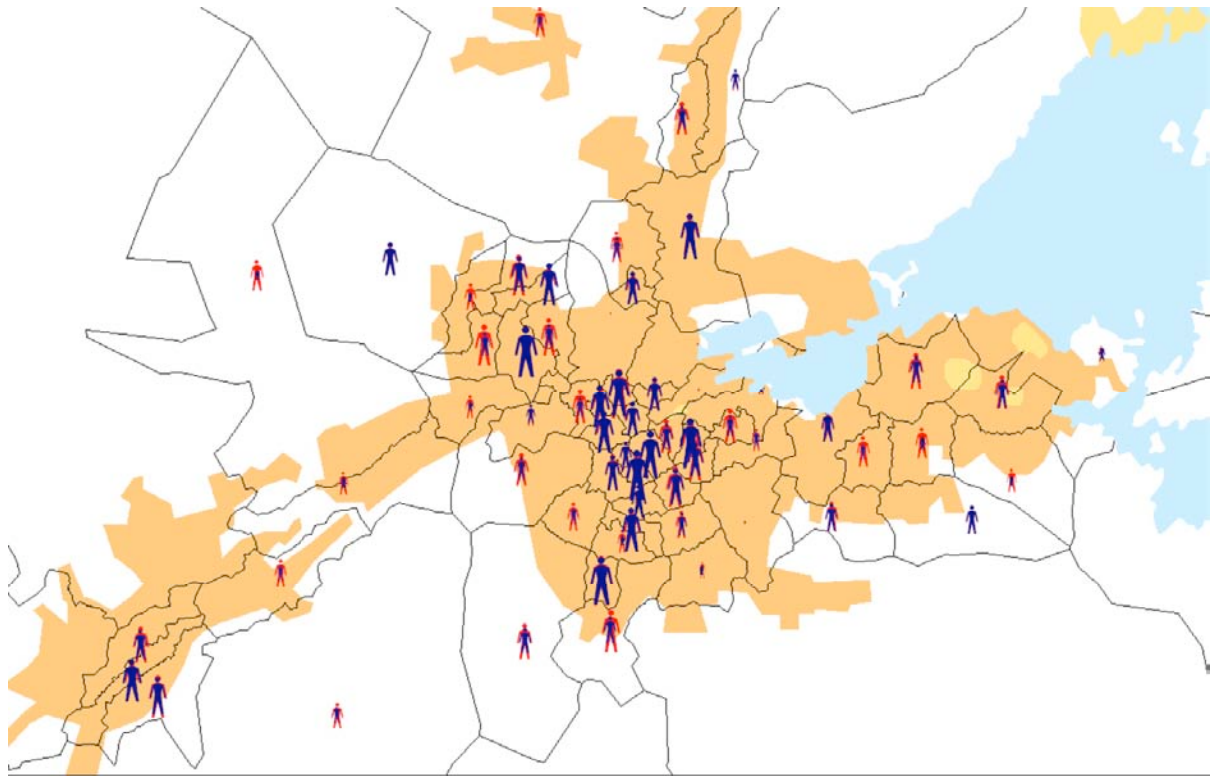


Figure 5. Gävle, SAMS-areas and red symbols for residential area in 2001 and blue symbols for residential area in 2006. For sample of all moving older people in 2006.

Discussion

To be written.

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Appendix

Table 10. Variables, 2001 and 2006.

2001	2006	Description	
IBFLopNr		Personlöpnnummer	
FoddAr			
Kon		1=man, 2=woman	
Fland		Country of birth	
utfod (gjord 06 data)		Utrikes född=1, Sverige=2	
Kohort		Kohort_20_30_40	
Alder_01	Alder06	81 till 52 och 86 till 57 år gamla	
FamLopNr_01	FamLopNr_06	Familjelöpnnummer	
DodDatum_01	DodDatum	Dödsdatum	
SAMSomrade_01	SAMSomrade_06	SAMS-kod	
Ostruta100_01	Ostruta100_06	Ostkoordinat, 100 meter	
Nordruta100_01	Nordruta100_06	Nordkoordinat, 100 meter	
ForvInk01	ForvInk_06	Summa inkomst av förvärvskälla	
	ForvInkNetto_06		
	ForvErs_06		
Fortid01	Fortid_06	Summa inkomst föranledd av förtidspension/sjukbidrag	
SumKapInk01	SumKapInk_06	Summa kapitalinkomst	
Sun_nivå_första_siffran_01	Sun2000Niva_06	Sun första siffran nivå	0=Pre-school, 1=Förgymnasial utbildning kortare än 9 år, 2=Förgymnasial utbildning 9 (10) år, 3=Gymnasial utbildning, 4=Eftergymnasial utbildning kortare än två år, 5=Eftergymnasial utbildning två år eller längre, 6=Forskarutbildning
arealf01	Arealfast_07	Areal (kvm) inom taxeringsenheten som tillhör fastigheten.	
	Areallomt_07	Tomtareal (kvm)	
Civil01	Civil_06	Civilstånd	1=gift, 2=änka/änkling, 3=ogift, 4=skild, 5=RP registrerad partner, 6=SP skild partner, 7=EP efterlevande partner
barn_hemma_01	barn_hemma_06	Number of children at home	Values range from 0 to 9
segment_01	segment_06	Tenure	1= Privat småhus eller lantbruk, 2=Bostadsrättsförening, 3=Kommunal hyresrätt, 4=Privat och övrig hyresrätt, 5=Småhus övrigt
Stayers_movers		Changed coordinate for both north and east 100x100m square, Stayers =0, movers=1	