

A Study of Residential Mobility of Older People in Rural and Urban Areas in Denmark

NB: Work in progress – not for quotation

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Abstract:

This study is a follow-up study of a recent, more general study of residential mobility of Older Danes. The main aim of the first study was to determine which factors influence older Danes decisions about moving house and which influence actual mobility, and on this basis to uncover what factors further and hinder decisions about moving house. An article about the first study has been published in *Housing, Theory and Society* this year.

In the new study focus is upon possible differences of residential mobility of older Danes in rural and urban areas and upon the role of local authorities in these matters. The local authorities are responsible for services for older people, for special housing for frail older people and for urban planning. Decisions taken by the local authorities in these matters can affect both reasons to move and reasons to stay among older people. The new study started by February 2006.

1. Introduction

Denmark is a small and relatively homogeneous country. We do not have different climate zones that could motivate some elderly to move within the country like in USA, France, Sweden or Finland. We only have relatively small differences in the level of provision of public services for the elderly, so they do not have to move from rural municipalities to urban municipalities in order to get access to such services. The level of services is also relatively high and the services are free of charge because they are financed by the taxes, so you do not have to move near to or even into the homes of your children in order to get help like in Spain. There are however other differences that could influence moving considerations, actual mobility, patterns of moving and factors that influence considerations about moving and actual mobility. In this study we concentrate on differences between municipalities in growth like the greater Copenhagen area where house prices are very high, out-skirt rural municipalities where the population is stagnating or even declining and where house prices are very low. We consider also municipalities with house price levels between these two extremes'. Secondly by interviews in metropolitan and rural municipalities we analyse the differences in local housing policy for the elderly.

2. Theoretical considerations

The life cycle model and the stress-threshold model

One early theory on housing mobility is the so-called life cycle model (Rossi, 1955; Rossi, 1980). According to this model the mobility frequency will increase in connection with changes in life stages like e.g. finishing education, marriage, divorce, change of work, retirement from the labour market, children leaving home, death of spouse or infirmity. More studies confirm that the propensity to consider moving and to actually move is higher at such changes of life stages (e.g. Kallan, 1993; Robison and Moen, 2000; Chevan, 1995). This indicates that occasions to move may not be so frequent among retired, healthy people.

Another theory on housing mobility is the so-called stress threshold model first developed by Wolpert (1965; 1966) and later further developed by Brown and More (1970), Speare (1974) and Fokkema et al. (1996). Wolpert assumes that a decision on moving is a function of what he calls the location's utility to the person in question. The location is not just the dwelling, but the physical surroundings and the social environment, as well. If the utility is high, there is no reason to move, even though the utility might be higher at another location. If utility for some reason decreases, the person will feel a certain stress. However, only if this feeling of stress is sufficiently high and exceeds a certain threshold, the person in question considers moving. Brown and More (1970) suggest that there are two steps: at first, to consider moving and after that the decision where to move to.

Speare (1974) prefers to use the concept 'relative satisfaction with residential location' and suggests three types of characteristics of importance to 'relative satisfaction with residential location': 1) individual characteristics and household characteristics, 2) location characteristics (housing, job, neighbourhood, region), 3) social bonds. The higher the level of satisfaction, the lower the probability is that the person considers moving. In most cases, a person who is very satisfied will not even consider moving in spite of the fact that he could be better off at another location regarding costs and benefits. Speare tested his general model in 1969 and 1970 and found a connection between the level of dissatisfaction and the wish to move and between the level of dissatisfaction and actual mobility (Speare, 1974). However, only half of those who considered moving, actually moved (see also Lu, 1999), and some who did not want to move, still moved. Some had been forced to move and others might have experienced a change in their conditions. According to Speare, the model with an intermediate variable – 'the relative satisfaction with residential location' – as the best one to explain mobility has been demonstrated. Only "home ownership" had a significant direct effect on mobility. Home owners seem according to Speare to have higher thresholds than tenants.

Fokkema et al. (1993; 1996) suggest that instead of considering actual conditions of the dwelling and the neighbourhood, perceived conditions should be considered. Furthermore, they suggest distinguishing between 'the level of dissatisfaction with the dwelling' and 'the level of dissatisfaction with the neighbourhood'. The following categories of variables were used: 1) personal characteristics, 2) perceived housing discrepancies, 3) perceived neighbourhood discrepancies, and 4) social bonds. They have found evidence that these intermediate variables (the level of dissatisfaction) can explain a big part of the wishes to move. However, they found more intermediate variables of importance: a) expected financial consequences of moving, b) expected (negative) consequences for social contacts of moving, and c) expected possibilities on the housing market from moving (Fokkema, 1996).

One further motive for moving could be a wish to live closer to one's children, especially if you are in need of help (e.g. De Jong et al., 1995). This motive, however, is found to have no importance in Sweden (Ekström and Danermark, 1993; Fransson and Teeland, 2004). This may at least partly be due to the extended public caring system for older people, which does not make it necessary for dependent people to live close to children to receive help.

The wish to get a more accessible dwelling and a dwelling easier to maintain may be reasons for moving. A move from an owner-occupied dwelling to a rented dwelling may express this. In a Swedish study (Ekström and Danermark, 1993) the major part moved between similar types of dwellings. Among those who moved to a different type of dwelling, 80% moved from a single-family house to a flat. Only very few moved from a rented dwelling to an owner-occupied dwelling. A Danish study (Jensen and Martini, 1984) found that some (10%) of the older residents of very big dwellings wanted to move to a smaller dwelling, but just to a slightly smaller one: from three rooms per person to two rooms per person. A later study has confirmed this (Byforum, 2001).

Another Danish study (Christoffersen, Husted and Rasmussen, 1994) confirms the results of foreign studies (e.g. Kallan, 1993; Robison and Moen, 2000) that housing mobility increases in connection with retirement from the labour market. In the Danish study the effect was only found among couples. The same study and a recent Danish study (Mose, 2004) find like foreign studies (e.g. Ekström and Danermark, 1993; Kallan, 1993; Chevan, 1995; Robison and Moen, 2000) that housing mobility increases among people who have lost their spouse.

Hansen, E.B. and Gottschalk, G. (2006) found in a Danish study about moving considerations and moving among older Danes support for the theory that decisions to move are influenced by life changes and dissatisfaction with the dwelling (the stress threshold model). The theories seem to fit best with moving considerations as a lack of possible alternative dwellings, an inadequate ability to cope with moving and the costs of moving seem to weaken the connection between possible dissatisfaction with the housing situation and actual mobility.

3. Data and methods

Data for this study are a combination of interview data, including information on considerations about moving house, and data from administrative registers, including information on actual mobility and, for example, valid information on household income. The data-set is longitudinal, which has made it possible to include data on housing mobility for a certain period of time.

The data basis of the analyses has been The Longitudinal Study of Elderly People at Statistics Denmark. This database is established on the basis of personal interviews carried out in 1997 with a representative sample of the cohorts born in 1920, 1925, 1930, 1935, 1940 and 1945. At the time of the interview they were 52, 57, 62, 67, 72 or 77 years old. A total of 5,684 people were interviewed and the response rate was 71%.

In 2002 the database was supplemented: those who were interviewed in 1997, who had survived, and who had not emigrated from the country were interviewed again. The 2002 sample was supplemented by a sample of the cohort born in 1950 (52 years old in 2002) and a supplementary sample of the other cohorts. In all, 8,200 persons were interviewed in 2002 (response rate 83%).

To sum up, at the time of the analyses the database includes interview data from 1997 and 2002 and register data for the period 1988–2002. This study includes register data concerning housing characteristics, rent subsidies, income, labour market participation and retirement, stays in hospital and contacts with a general practitioner. Register data concerns the respondents as well as the respondent's possible adult cohabiter. This makes it possible to analyse whether circumstances concerning the cohabiter or the household as a whole influence the respondents' thoughts about moving and their actual housing mobility.

The analyses of considerations about moving are based on responses from interviewees in 1997. The analyses of mobility are based on these people's actual mobility in the period September 1997 to December 2002. A total of 5,260 persons are included in these analyses.

The descriptive statistics on considerations about moving are based on interviews among those aged 52–77 years in 1997 and those aged 52–77 years in 2002. In 2002 the question on considerations about moving was posed only to those who stated that they had lived in their dwelling for more than 5 years. The total sample was 6,415 persons. The descriptive statistics on reasons for moving are based on interviewees from 1997 who were reinterviewed in 2002 (in total 4,634, response rate 88%) and who stated that they had lived for less than 5 years in their present dwelling (690 persons).

Methods

As mentioned above the objectives of the study has been to reveal to which extent *the area of location* influence the propensity to consider to move and to actually move. Furthermore, the objectives have been to analyse whether *the area of location* has an impact on which factors influences considerations about moving and actual mobility.

In the analyses is included a variable describing whether a person is living in an area of growth or an area of stagnation. This is defined through the average price per m² of traded dwellings in 2002 in the municipality assuming that a high price indicates a pressure on the housing market with a relatively high demand and that a low price indicates the opposite. The hypothesis is that in areas with a high demand more people will find it difficult to find a suitable dwelling and the propensity to move therefore is lower than in areas with a low price level. The observations are categorized into five areas: housing prices 1) below 5,000 DKK/m², 2) 5,000-6,500 DKK/m², 3) 6,500-8,000 DKK/m², 4) 8,000-9,500 DKK/m², and 5) above 9,500 DKK/m².

A variation in prices per m² may very well include a variation between urban and rural areas and the difference between urban and rural areas is not just in the price level but in the housing stock as well. Therefore, a variable is included which describes whether a person lives in an urban or a rural area. The variable has three categories: 1) cities, 2) metropolitan municipalities and municipalities with more than 10,000 inhabitants (urban) and 3) other municipalities with less than 10,000 inhabitants (rural). This variable indicates a different composition of the housing stock. In the cities and to a lesser degree in the urban municipalities a relative big share of the housing stock is rented housing while the share of owner-occupied housing is relatively big in small (rural) municipalities. In some cases there are only few rented dwellings in rural municipalities.

A variable combining the two variables above was constructed with seven categories: 1) cities and housing prices above 8,000 DKK/m², 2) metropolitan or more than 10,000 inhabitants and housing prices above 8,000 DKK/m², 3) below 10,000 inhabitants and housing prices above 8,000 DKK/m²,

4) metropolitan or more than 10,000 inhabitants and housing prices 6,500-8,000 DKK/m², 5) below 10,000 inhabitants and housing prices 6,500-8,000 DKK/m², 6) metropolitan or more than 10,000 inhabitants and housing prices below 6,500 DKK/m², and 7) below 10,000 inhabitants and housing prices below 6,500 DKK/m². The purpose of this variable is to separate the possible effect of price per m² and the urban-rural dimension.

Inspired by Speare (1974) and Fokkema et al. (1996), the explanatory variables of the analyses on factors influencing considerations about moving and actual mobility are classified into four categories:

- Individual conditions and changes.
- Household conditions and changes.
- Standard of the dwelling.
- Neighbourhood and attachment to the dwelling.

Except for the descriptive analyses all analyses were performed through multivariate logistic regression. The analysis is an expansion of a former study reported in Hansen & Gottschalk (2006) where a number of explanatory factors for considerations about moving and actual mobility were found.

The level of significance was set at 5% in the analyses, but for variables that are theoretically well founded a level close to 5% was accepted.

Analysis of thoughts about moving is performed as logistic regressions and based on the question in 1997: Are you considering moving within the next 5 years? The response variable is binary: 1="consider moving" and 0="do not consider moving".

Analysis of actual mobility is based on moves in the period 1997–2002, and again the response variable is binary: 1="has moved" and 0="has not moved". The variable is constructed from the date of the move to the present address according to the register for population statistics. If the date of the move to the present address is in the period September 1997 to December 2002, a person is defined as having moved. Those who died or emigrated during this period were excluded from the analysis.

4. Considerations about moving and actual mobility in different areas

In this section descriptive statistics on considerations about moving and actual mobility in different areas are presented.

From table 1 is seen that in areas with a medium-sized price level (6,500-8,000 DKK/m²) the lowest percentage has considerations about moving. This level is significantly lower than the average in 1997, while the level hardly differs from the average in 2002. As expected, the percentage who considers moving is biggest in the areas with the highest housing prices. This finding appears also if we only consider people living in urban areas outside cities, but not if we only consider rural areas. Comparing people in cities, urban and rural areas, a bigger percentage of people living in cities consider moving in 1997. This is not identified in 2002.

Table 1

The percentage of Danes aged 52-77 in 1997 and 2002, who considers to move within the coming five years. Calculated for areas with different levels of housing prices.

	Price level of sold dwellings 2002					
	Below 5,000 DKK/m ²	5,000-6,500 DKK/m ²	6,500-8,000 DKK/m ²	8,000-9,500 DKK/m ²	Above 9,500 DKK/m ²	All
Considered 1997	14.3	16.0	12.3	15.9	17.8	15.8
Considered 2002	17.6	17.4	15.1	19.0	18.8	17.8
N (1997)	664	1,272	985	850	2,032	5,803
N (2002)	731	1,421	1,058	956	2,228	6,394

p (1997) < 0.01, p (2002) = 0,1

The percentage of the population who has actually moved in the period 1997-2002 (within five years) appears from table 2 and there is no difference in the propensity to move between the populations in areas with a different level of housing prices. The same findings appear when just considering people in urban areas and rural areas, and we find no differences between cities, urban areas and rural areas.

Table 2

The percentage of Danes aged 52-77 in 1997, who has actually moved in the period 1997-2002. Calculated for areas with different levels of housing prices.

	Price level of sold dwellings 2002					
	Below 5,000 DKK/m ²	5,000-6,500 DKK/m ²	6,500-8,000 DKK/m ²	8,000-9,500 DKK/m ²	Above 9,500 DKK/m ²	All
Moved 1997-2002	19.3	21.3	19.1	21.8	20.9	20,6
N	605	1,155	885	777	1,829	5,251

p = 0,57

To which extend the population carries out their considerations about moving is shown in table 3. It appears that rather more than half of those who considered to move have actually moved and just under 20% do not consider to move anymore although they have not moved, while just above 20% still have considerations about moving house in 2002. Neither in this case do we find any significant differences between areas with a different level of housing prices. This may be the reality, but may also be due to the fact that in this case the population is rather small.

Table 3

The situation in 2002 for those Danes aged 52-77 in 1997, who considered to move in 1997. Calculated for areas with different level of housing prices. Percentage.

	Price level of sold dwellings 2002					
	Below 5,000 DKK/m ²	5,000-6,500 DKK/m ²	6,500-8,000 DKK/m ²	8,000-9,500 DKK/m ²	Above 9,500 DKK/m ²	All
Have moved 1997-2002	55.4	57.5	52.8	55.6	52.3	54.3
Have not moved, but con-						

sider still	26.5	21.2	22.2	17.5	22.4	21.8
Have not moved, and do not consider anymore	16.9	15.1	21.3	23.8	18.4	18.7
Have not moved, and considerations unknown	1.2	6.1	3.7	3.2	6.9	5.2
Total	100	99.9	100	100.1	100	100
N	83	179	108	126	331	827

p = 0,4

Neither do we find any differences of statistical significance when we compare cities, urban and rural areas.

Reasons to move house and patterns of housing moves

Table 4 presents the reasons the respondents have formulated for considerations about moving house and several differences between the different areas are observed. A wish to move to a smaller dwelling is most frequent in areas with the lowest housing prices, and actually the share of the population living in big dwellings is biggest in these areas. On the opposite, the wish to move to a smaller dwelling is least frequent in areas with the highest housing prices where the share living in big dwellings is the lowest. It is not surprising that only a low share in the areas with the highest housing prices wish to escape gardening as we expect that many live in dwelling without garden. However, it is surprising that a low share in the areas with the lowest housing prices wish to escape gardening as one would expect that in these areas it is rather common to have a garden.

High housing prices is reflected in a relatively high percentage wishing to move to a cheaper dwelling, and people living in areas with low housing prices consider moving as to live more centrally. The reason for this is probably not the low housing prices, but that low housing prices in most cases are connected with living in a small town or a rural area. A relatively big proportion of people living in areas with high housing prices consider moving to live closer to nature. Again this may be explained not just by the urbanisation of the area but when you move closer to nature you will probably achieve lower housing expenses.

Only a small percentage of the population considers moving to get a bigger dwelling but the percentage is highest in areas with the highest housing prices where the average size of the dwelling is the smallest.

Table 4

Reasons for considerations in 1997 about moving house among Danes aged 52-77. Calculated for areas with different level of housing prices. Percentage.

	Price level of sold dwellings 2002					All
	Below 5,000 DKK/m ²	5,000- 6,500 DKK/m ²	6,500- 8,000 DKK/m ²	8,000- 9,500 DKK/m ²	Above 9,500 DKK/m ²	
To get a smaller dwelling	51	44	41	47	37	42
To escape gardening	15	22	19	22	16	19
To escape stairs	15	13	17	21	15	16
To get lower housing ex- penses	12	10	12	14	21	16
To live more centrally	26	25	15	12	11	16
Because of poor health	14	17	17	13	10	14
To get closer to nature	3	8	4	10	14	10
Because of retirement	8	8	10	6	9	8
To get a more modern dwelling	8	7	4	7	7	7
To get a bigger dwelling	2	4	3	9	8	6
To live closer to family	7	6	3	4	5	5
To live closer to work	3	1	2	4	3	3
Because of divorce or spouse's death	1	3	3	4	3	3
Other reasons	19	20	26	24	24	23
Total	95	204	121	135	362	917
N						

People who in 2002 stated that they have lived for less than five years in their dwelling were asked why they have moved house. The answers appear from table 5. It is important to note that there is only partly an overlap between the populations in table 4 and 5.

Except for areas with prices of 5,000-6,500 DKK/m² we find no differences in the percentage that have moved to get a smaller dwelling. As was the case concerning reasons to consider moving we find in areas with high housing prices the lowest percentage that has moved to escape gardening and the highest percentage that has moved to get lower housing expenses.

Like reasons for considering moving we find in areas with the lowest housing prices the biggest percentage that has actually moved house to live more centrally. It is interesting to note that in areas with the highest housing prices only a small percentage state that they have moved because of poor health.

Table 5

Reasons to have moved within the latest five years among Danes aged 57-82 in 2002. Calculated for areas with different level of housing prices. Percentage.

	Price level of sold dwellings 2002					All
	Below 5,000 DKK/m ²	5,000-6,500 DKK/m ²	6,500-8,000 DKK/m ²	8,000-9,500 DKK/m ²	Above 9,500 DKK/m ²	
To get a smaller dwelling	31	43	37	39	35	37
To escape gardening	16	20	19	17	10	16
To escape stairs	11	12	23	15	9	13
To get lower housing expenses	5	10	4	7	19	11
To live more centrally	16	15	9	8	9	11
Because of poor health	17	15	16	15	6	12
To get closer to nature	2	2	5	5	7	5
Because of retirement	8	6	2	1	3	4
To get a more modern dwelling	6	7	10	5	9	8
To get a bigger dwelling	6	4	4	5	6	5
To live closer to family	6	5	4	8	10	7
To live closer to work	1	2	2	1	1	1
Because of divorce or spouse's death	11	11	13	8	8	10
Other reasons	28	18	22	19	25	22
N	83	169	105	101	233	691

In table 6 is presented whether those who have moved, have moved to another municipality or even to another county. Compared to the other areas people living in areas with the lowest housing prices or in areas with highest housing prices to the greatest extent move to another municipality (most markedly for people in areas with the highest prices) and to another county. We find the same tendency among those who have retired as among those who are still on the labour market (not shown).

Table 6

The percentage of Danes aged 52-77 in 1997, who has actually moved in the period 1997-2002, that has moved to another municipality or another county. Calculated for areas with different levels of housing prices. Percentage.

	Price level of sold dwellings 2002					All
	Below 5,000 DKK/m ²	5,000-6,500 DKK/m ²	6,500-8,000 DKK/m ²	8,000-9,500 DKK/m ²	Above 9,500 DKK/m ²	
Moved to another municipality	28	25	20	25	42	
Moved to another county	25	15	18	17	29	
N						

p (municipality) < 0,0001, p (county) < 0,001

5. Factors influencing considerations about moving and actual mobility

As mentioned above a former study reported in Hansen and Gottschalk (2006) found a number of factors influencing the propensity to consider moving were revealed. A reanalysis with these factors has been made and at the same time including a variable describing housing market of the area that the respondents live in. The purpose was to test whether the housing prices of an area have any influence on the propensity to consider moving when controlling for other factors. The result is shown in table 6. As it appears from the table the propensity to consider moving is significantly lower in areas with a middle-sized price level compared to cities with a high price level. The propensity to consider moving do not differ significantly from cities in other areas with a high price level and in areas with a low price level.

We have tested whether factors influencing the propensity to consider moving are of different importance in areas with low, middle-sized or high housing prices. The result of this analysis, too, is shown in table 6. Compared to the other areas, people living in an area with low housing prices and living in a large rented dwelling considers more often moving than people living in another type of dwelling. In the other areas there is no significant difference in the propensity to consider moving between the various types of dwelling. A regression analysis on people living in cities (not shown) indicates that the propensity to consider moving in these areas is lower among people living in large rented dwellings than in the other types of dwelling. However, the odds ratios do not differ statistically significantly from 1.

People aged 52, 57 or 62 consider more often moving than people aged 77 in areas with a high price level compared to the other areas. In the older age groups there seems to be no significant difference between the different areas in the propensity to consider moving.

The connection between the propensity to consider moving and an increase in income is most frequent in areas with a middle-sized housing prices as well in areas with high housing prices. Finally, in areas with middle-sized housing prices there is in contrast to the other areas no significant connection between having become alone and the propensity to consider moving.

Table 6.

Factors influencing the propensity in 1997 that Danes aged 52-77 consider moving house. In all and for areas with different levels of housing prices.

	Odds ratio			
	All	Below 6,500 DKK/m ²	6,500 – 9,500 DKK/m ²	Above 9,500 DKK/m ²
Housing expenses in relation to disposable income	2.05*	2.302 #	2.026	1.861
Good self-reported health (very good/good)	0.8**	0.744 *	0.771#	0.872
Involuntary alone (often/occasionally)	1.55***	1.355#	1.799***	1.564**
Small dwelling ¹	1.63**	1.937#	1.233	1.746*
Small or medium-sized owner-occupied versus large rented dwelling ²	0.63**	0.354***	0.876	0.752
Small or medium-sized versus large rented dwellings	0.65**	0.454**	0.761	0.826
Large owner-occupied versus large rented dwelling	0.81	0.583*	0.822	1.018
Good accessibility (no stairs to or in the dwelling)	0.73***	0.653**	0.665**	0.841
Good relation with neighbours (see neighbours or are friends with neighbours)	0.85*	0.764#	0.882	0.882
52 years versus 77 years	1.49**	1.030	1.303	2.172**
57 years versus 77 years	1.42*	1.457	1.176	1.634#
62 years versus 77 years	1.57**	1.304	1.072	2.267**
67 years versus 77 years	1.5**	1.582#	1.503	1.385
72 years versus 77 years	1.28	1.256	1.250	1.372
Decrease in disposable income ³ versus unchanged income ⁴ within the latest 5 years before 1997	1.24#	1.342	1.187	1.181
Increase in disposable income ⁵ versus unchanged income within the latest 5 years before 1997	1.31*	1.024	1.732*	1.410#
Have become single within the latest 5 years before 1997 versus no changes in household	1.53***	1.751**	0.996	1.820**
Have become part of a couple within the latest 5 years before 1997 versus no changes in household	1.11	0.420	1.471	1.360
Urban areas and price level above 8,000 DKK/m ² versus cities	0.69			
Rural areas and price level above 8,000 DKK/m ² versus cities	0.88			

Urban areas and price level above 6,500-8,000 DKK/m ² versus cities	0.67**			
Rural areas and price level above 6,500-8,000 DKK/m ² versus cities	0.66*			
Urban areas and price level below 6,500 DKK/m ² versus cities	0.99			
Rural areas and price level below 6,500 DKK/m ² versus cities	0.84			
N=	5,767	1,926	1,826	2,015

p< 0.1 * p< 0.05 **p< 0.01 ***p< 0.001

¹ Maximum one room for people who are single and two for couples.

² For people who are single large are ≥ 4 living rooms. For others ≥ 5 living rooms.

³ Disposable income has decreased with more than 20% in relation to average of the latest 5 years.

⁴ Disposable income has changed less than 20% in relation to average of the latest 5 years.

⁵ Disposable income has decreased with more than 20% in relation to average of the latest 5 years.

In the former study mentioned (Hansen and Gottschalk 2006), too, a number of factors influencing the propensity to actually move house were revealed. Including these factors and the variable describing the housing market of the area where the respondents are living, it is tested whether the housing market is of influence on the propensity to actually move. The result of this analysis is shown in table 7.

It appears that there is no significant connection between the price level of housing or urbanisation on the one side and the propensity to have moved house on the other side. The propensity to move house is lowest in urban areas with a middle sized prices level but it cannot be eliminated that this is a random difference from the other areas.

Comparing the factors of influence on the propensity to move house in the different areas we find that housing expenses in relation to disposable income is of particular importance in areas with high housing prices. Furthermore, we find that people living in an owner-occupied dwelling do not move as often as people living in a rented dwelling when they live in an area with low housing prices. This is especially the case in rural areas with a low price level (not shown). And again, although not statistical significant there is a tendency that in the cities the propensity to move is lower among people living in large rented dwellings compared to people living in another type of dwelling (not shown).

Especially people living in an area with high housing prices move house when they have become alone, an especially people living in areas with low housing prices move house because they live isolated. Finally, especially in areas with low housing prices the propensity to move is reduced when people have good relations with neighbours.

Table 7

Factors influencing the propensity that Danes aged 52-77 have moved house 1997-2002. In all and for areas with different levels of housing prices.

	Odds ratio			
	All	Below 6,500 DKK/m ²	6,500 – 9,500 DKK/m ²	Above 9,500 DKK/m ²
Housing expenses in relation to disposable income	1.9*	1.096	1.884	2.616*
Dummy variable concerning housing expenses ¹	1.26*	1.051	1.402	1.433
Small or medium-sized owner-occupied versus large rented dwelling	0.7*	0.505 **	0.766	0.843
Small or medium-sized versus large rented dwellings	0.73*	0.702	0.804	0.848
Large owner-occupied versus large rented dwelling	0.61**	0.398 ***	0.573 #	1.047
Single man versus cohabitant man	1.23	1.329	1.110	1.314
Single woman versus cohabitant man	1.39**	1.563 *	1.234	1.449*
Cohabitant woman versus cohabitant man	1.11	1.250	1.093	1.013
Good self-reported health (very good/good)	0.79**	0.768 *	0.755 *	0.873
Decrease in disposable income versus unchanged income within the latest 5 years before 1997	1.24**	1.244	1.255	1.297#
Retired during 1995-2001 versus not retired or retired earlier	1.18*	1.262#	1.240	1.022
Have become single since 1 January 1996 versus no changes in household	1.96***	1.752 *	1.504	2.403***
Involuntary alone (often/occasionally)	1.19#	1.172	1.356 #	1.110
Live isolated (in a rural area)	1.44**	1.672 **	1.205	1.260
Good accessibility (no stairs to or in the dwelling)	0.81**	0.783 #	0.759 *	0.807
Have lived in the dwelling for at least 10 years	0.6***	0.613 ***	0.506 ***	0.688**
Good relation with neighbours (see neighbours or are friends with neighbours)	0.84*	0.752 *	0.826	0.917
Urban areas and price level above 8,000 DKK/m ² versus cities	1.04			
Rural areas and price level above 8,000 DKK/m ² versus cities	0.96			
Urban areas and price level above 6,500-8,000 DKK/m ² versus cities	0.8			
Rural areas and price level above 6,500-8,000 DKK/m ² versus cities	1.07			

	Odds ratio			
	All	Below 6,500 DKK/m ²	6,500 – 9,500 DKK/m ²	Above 9,500 DKK/m ²
Urban areas and price level below 6,500 DKK/m ² versus cities	1.03			
Rural areas and price level below 6,500 DKK/m ² versus cities	0.99			
N=	5,239	1,755	1,659	1,825

p < 0,1 * p < 0,05 ** p < 0,01 *** p < 0,001

¹ A technical variable taking the value 1 if disposable income is ≤ 0 and else 0.

6. Local housing policy and residential mobility

From our previous study and this study we know that the most frequent reasons for older people to move are:

- to get a smaller dwelling
- to escape stairs
- to escape gardening
- to live near private and public services
- to live more centrally
- to get lower housing expenses
- because of poor health
- because of divorce or spouse's death

Parts of the local housing policy and service policy can help both elderly movers and elderly persons who prefer to stay put, but are only able to do so with difficulties.

In this project interviews with planners and civil servants in some municipalities have been made. Some of the municipalities are rural or municipalities without growth. Some municipalities are urban or municipalities with an expanding economy. Until now 3 of the first category has been visited: Morsö, Sallingsund and Nakskov.



Morsö

Morsö is a rural municipality in northern Jutland with 23.000 inhabitants. There are many villages and only one semi large town: Nykøbing.

By January 1988 there was a radical change in Danish housing policy for older people: Housing and services should be separated. You could no longer construct packages of housing and care like sheltered housing institutions for frail elderly nor nursing home institutions for the very frail elderly.

You could only construct adapted housing for the elderly. The elderly living there could – after an assessment of their needs - receive services like home help, district nursing, meals-on-wheels etc. according to the same rules applying for elderly people in the general housing stock. Morsö was one of the first municipalities that adopted this new policy. In many of the rural villages small clusters of 5 to 15 adapted housing for elderly people units were built. The houses were built by and owned by non-profit housing associations, but the local authority decided who could move in. It was a rather popular policy for frail elderly people who needed to move to adapted housing, but did not want to move from their neighbourhoods. Nowadays the situation has changed: Firstly the standard of housing in the general housing stock has improved over the last 20 years. In the villages you do not need to the same extend as before to move to this kind of housing in order to get housing where you can live even if you need housing for people using walkers or wheel chairs. Secondly more elderly people from the villages nowadays prefer to move over longer distances for instance to the central city Nykøbing with good access to private services. In the villages you can still get public services like home help and housing adaptations if you need these services, but their might only be one or even none shop left.

In 2000 the local authority made a survey about housing preferences among all elderly people aged 60+. The majority preferred to move to Nykøbing if they for some reasons should move. Due to this result of the survey the local authority by local physical planning appointed areas for new housing in Nykøbing. Private developers built new co-operative housing with lifts and many without thresholds. They became very popular with elderly people – not only from the villages, but also with elderly people who used to live in houses with a large garden in the surroundings of Nykøbing. It is not

small dwellings like the special housing for the elderly with 65 m², but typically 85-100 m². The dwellings are not dedicated for elderly people only they are also for younger people and families. Just now private developers are constructing luxury condominiums in previous industrial harbour areas. They are all accessible. There are lifts even in two storey buildings. The largest dwelling will have 140m². Like the co-operative dwellings units these condominiums are for all age groups, but they are very popular among elderly people who sell their large houses and move in.

Some elderly people moved to co-housing units for elderly people 60+. Totally there are 70 dwellings in these units.

The municipality of Morsö had five nursing homes, from before 1988. Four of them have been renovated and the last one is being renovated now. After the renovation the very frail elderly persons living there will have nursing dwellings with two rooms, a large bathroom and a kitchenette + access to common rooms. Two of the centres for the elderly- as they are called - are located in Nyköping.

As to the moving patterns across the boundaries of the municipality a new tendency has occurred: Some elderly people who grew up in the municipality and migrated to larger cities as adults return to Morsö after leaving the labour market.

Sallingsund

Sallingsund is another small rural municipality in Northern Jutland with only 6.200 inhabitants. There are small villages and only one little town: Glyngöre. In many of the villages there are empty houses and only a few or non shops. You see the same tendencies like in Morsö: Some elderly people in the villages sell their house and move to the central town. And the local authority did like the local authority in Morsö in reserving left over industrial areas in near the harbour to new housing by local physical planning. Private developers built co-operative housing. And this kind of housing is popular among elderly movers. In Morsö new non-profit housing was not built. In Sallingsund there are more units of non-profit housing suited for elderly persons. They are placed in units of up to 25 dwellings. New non-profit housing is also built in the harbour area in Glyngöre. They are not designated for elderly persons, but some elderly from the villages move in to these dwellings. Three former nursing homes have been renovated to centres for elderly people with modern two rooms nursing dwelling like in Morsö. Some of the non-profit housing units with dwellings suited for elderly persons are built adjacent to the centres for the elderly.

The local authority is very active in making housing adjustments in private dwelling – like removal of threshold, changing bathtubs into showers and widening doors so elderly people using walkers or wheelchairs can stay put in their home if they prefer so instead of moving. Some frail elderly people prefer to stay put even if they need very much help during the day and night. In such cases it would have been cheaper for the local authority if they moved in to one of the nursing dwellings.

Nakskov

Nakskov is municipality in the southern of Denmark with 15.000 inhabitants. It is not a rural municipality, but it is surrounded with rural municipalities and it is a municipality of stagnation. There are hundreds of empty dwellings. The stagnation started in 1985 when the large shipyard closed

down. The municipality is too far from Copenhagen for commuters. The main town is named Nakskov like the municipality.

With empty dwellings and a growing population of elderly people some of the main elements of the housing policy are to reduce the number of dwellings and to adapt some of the existing dwellings to dwellings suited for elderly persons.

Like in Morsö and Sallingsund many elderly people move from their houses into modern co-operative housing, but this means that the total number of dwellings increase instead of decrease. Therefore the local authorities have bought some of the dwellings in the worst condition and demolished them. Even whole blocks of non profit housing were demolished in order to reduce the number of empty dwellings.

For the remaining units of non profit housing many initiatives were taken in order to establish housing suited for elderly persons. The main idea is that in all units some of the dwellings shall be suited for elderly persons. Thereby elderly person who lived there for many years do not have to leave their neighbours if they need a dwelling suited for elderly persons. They can move to another dwelling within the same unit. So some small dwellings were merged and renovated into housing for elderly persons. Some units of housing for the elderly were built where block of flats had been demolished. And in many blocks of non profit housing elevators were installed.

Because of this policy many elderly people can stay longer in the units of non profit housing before they are so frail that they have to move into one of the three centres for elderly people. They can get the necessary services like home help, wheels on meals etc. in their dwellings.

7. Conclusion

In this study housing prices per m² for traded houses in 2002 were used as indicators for growth and stagnation. The assumption behind this choice is that a high price indicates a pressure on the housing market with a relatively high demand and that low prices indicates the opposite. The observations are categorized into five levels of prices. In the top category you find the metropolitan area of Copenhagen and the area around the second largest municipality of Aarhus. The lowest prices you find in the southern and northern parts of Jutland and on the islands south of Zealand and Funen.

Interviews about housing policy regarding older people were made with civil servants from three low price municipalities. Later similar interviews will be made in three high price municipalities.

Conclusions from the statistical analyses

Interview data and register data from 1997 and 2002 for the same older persons were used. Some considered moving within five years and half of them actually did move. Some did not consider moving, but moved never the less.

We found some, but not that many significant differences as to moving considerations, reasons to move, patterns of moving and factors influencing considerations about moving and actual mobility among older people living in areas with various house prices. The most important differences were:

In areas with a medium-sized price level (6,500-8,000 DKK/m²) the lowest percentage has considerations about moving. This level is significantly lower than the average in 1997, while the level

hardly differs from the average in 2002. As expected, the percentage who considers moving is biggest in the areas with the highest housing prices.

There is no difference in the propensity to move between the populations in areas with a different level of housing prices.

A wish to move to a smaller dwelling is most frequent in areas with the lowest housing prices, and actually the share of the population living in big dwellings is biggest in these areas. On the opposite, the wish to move to a smaller dwelling is least frequent in areas with the highest housing prices where the share living in big dwellings is the lowest.

High housing prices is reflected in a relatively high percentage wishing to move to a cheaper dwelling, and people living in areas with low housing prices consider moving as to live more centrally. The reason for this is probably not the low housing prices, but that low housing prices in most cases are connected with living in a small town or a rural area.

Comparing the factors of influence on the propensity to move house in the different areas we find that housing expenses in relation to disposable income is of particular importance in areas with high housing prices

Especially people living in an area with high housing prices move house when they have become alone, an especially people living in areas with low housing prices move house because they live isolated. Finally, especially in areas with low housing prices the propensity to move is reduced when people have good relations with neighbours.

Compared to the other areas people living in areas with the lowest housing prices or in areas with highest housing prices to the greatest extend move to another municipality and to another county (most markedly for people in areas with the highest prices).

Conclusions from the interviews in three low price municipalities

This study is still going on. Until now only three municipalities in the group of municipalities where you have the lowest house prices was visited. In the next period three municipalities in the group of municipalities where you have the highest level of house prices (the metropolitan area around Copenhagen and the area around the second largest municipality Aarhus) will be visited.

Common for the three first municipalities were:

The population was stable or even declining

The share of older people was increasing

There were many empty dwellings

The older people, who moved, moved to more central places with more private services. In Denmark public services especially for older people like home help, district nursing, meals-on wheels and housing adaptations are available for all older people who need these services wherever they live. Only the renovated nursing homes with nursing dwellings for the very frail elderly were concentrated to a few Centres for the Elderly in the three municipalities. The average living times for the very frail elderly people living there is only two years or less.

In all three municipalities physical planning was an integrated part of the housing policy for the elderly. I.e. by physical planning areas were reserved for new housing projects. It could be previous industrial areas. Private developers built co-operative housing – that was not especially for older people, but were popular among elderly people who moved. In two of the three municipalities the local authorities also had collaboration with the non profit housing associations – In Sallingsund by building of new non profit housing estates and in Nakskov by renovating older non profit housing estates, so more adapted dwellings, reserved for older persons were established.

Housing adaptations like removal of thresholds, changing bathtubs with showers, widening doors, installing ramps etc. is performed by the social department of the local administrations and not by the technical departments which are responsible for most of the housing policy. Especially the municipality of Sallingsund actively used these tools. Thereby older people with close relations to neighbours could keep these relations. They did not have to move. In Naksoy the idea was that in every non-profit housing estate there should also be flats suited for older people. So even if they had to move from their present flat they could get a nearby adapted flat – maybe even in the same building and thereby keep their relations with neighbours.

The social services can have the same effect. If you for instance prefer to stay but have problems with shopping and cooking you can get meals-on-wheels, which enables you to stay longer. People who need these services and which to move to a more central part of the municipality can of course also get them in their new dwelling

So for older persons housing policy and social services are important for them whether they want to stay or to move.

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