DO THE ELDERLY MOVE AT THE RIGHT TIME?

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FÖRFATTARENS TACK

Det är många i min omgivning som bistått mig med goda råd både före under och efter olika seminarier, men framför allt uppskattar jag de kommentarer min opponent på första slutseminariet, Jessica Lindberg på KTH, kommit med vilka har varit till stor hjälp i det slutliga arbetet. Jag är även tacksam för att Marianne Abramsson, Linköping, tar sig tid att vara opponent på mitt slutliga huvudseminarium, och vars kunskap och kommentarer kommer att vara till stor hjälp i mina fortsatta studier.

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Mvh
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SAMMANFATTNING

Sverige har under många år haft en policy att hjälpa de äldre att kunna bo kvar i sitt nuvarande boende så länge som möjligt. Är detta en bra policy för de äldre och är detta en bra policy ur ett välfärdsperspektiv? Denna studie fokuserar på två aspekter vad gäller de äldres flyttmönster. Stannar de äldre i sitt nuvarande boende för att det är optimalt för hushållet eller beror det på någon form av transaktionskostnader? Är det optimala boendet även optimalt ur ett välfärdsperspektiv vad gäller flyttkedjor för alla ålderskategorier?

Studien genomfördes i Gävle, en medelstor stad med ca 70 000 invånare ca 100 km norr om Stockholm. Bostadsmarknaden är generellt i jämvikt och priserna är ungefär genomsnittliga för den svenska bostadsmarknaden vilket gör att Gävle är ett bra exempel. Gävle har också en tradition av forskare som är aktiva inom fastighetssektorn. Som inledning till den huvudsakliga enkäten utfördes en pilotstudie under 2011 som fokuserade på avdelningschefer och boende på äldreboenden i Gävle. Frågorna fokuserade på transaktions-kostnader som kan uppkomma när man flyttar och är äldre. Fem avdelningschefer och 18 boende på olika äldreboenden intervjuades. Alternativet till att flytta till äldreboende är att ha hemtjänst. Detta betyder att det är viktigt att särskilja frågan *"flyttar de äldre till ett mindre boende (downsizing) vid rätt tidpunkt?"* och frågan *"flyttar de äldre till ett äldreboende vid rätt tidpunkt?".* Eftersom pilotstudien visade att beslutet att flytta till ett äldreboende till stor del styrs av de sociala myndigheterna flyttades fokus istället på de som funderar på att flytta till mindre boende. Totalt skickades 1000 enkäter ut till hushåll I åldersgruppen 65-85 år, boende inom den ordinarie bostadssektorn, varav 660 svarade.

Studien täckte bara till en mindre del informationsaspekten, men om en person är nöjd med sin situation, vilket de allra flesta var, är det snarare brist på initiativ än brist på information som förhindrar flytt, förutom vad gäller de äldre ålderskategorierna. Vad gäller skattesystemet så kunde inga indikationer på att detta förhindrar äldres flyttmönster ses, men slutsatsen kan bero på prisnivån vilket gör att det inte går att generalisera. Även om skattesystemet inte är ett problem så oroar sig många över sina månatliga kostnader. De månatliga kostnaderna kan öka när man flyttar till ett mindre boende eftersom ett nyare boende kan innebära högre månadskostnader. Eftersom det sociala nätverket avtar med åldern och hälsan kan försämras är det möjligt att påverka speciellt en-persons-hushåll över 80 år, boende i 3-5-rumslägenheter. Här kan riktade åtgärder för att underlätta flytt till ett mindre boende eller hjälp att hitta bättre alternativ likt den hjälp som introducerats i Storbritannien ge effekter.

ABSTRACT

For many years the policy in Sweden has been to help the elderly to stay in their current homes as long as possible. Is this a good policy for the elderly and is this a good policy from a welfare perspective? The study focused on two aspects of the moving pattern for the elderly. Are the household staying in their current home because it is optimal from the household's point of view or because there is some kind of transaction cost? Is the optimal solution for the household also the best option for the society as a whole concerning moving chains for all age categories?

This study was carried out in Gävle, a medium sized city of approximately 70 000 inhabitants about 100 km north of Stockholm. The housing market is in general in equilibrium and the prices are about the average for the Swedish housing market which makes Gävle an interesting case. Gävle has also a tradition of researchers active within the housing sector. As an introduction to the main questionnaire study a pilot study was carried out during 2011 focusing on managers and persons living at nursing home in Gävle. The questions were focusing on transaction costs that may arise while moving when you are older. Five managers were interviewed and 18 persons living at different nursing homes.

As an alternative to moving to some kind of elderly living, the elderly can get various kinds of home service for a reduced fee. This means that it is important to separate the question *"is the elderly moving to a smaller dwelling (downsizing) at the "right" time?"* and the question *"are they moving to some kind of elderly living at the "right" time?"* As the pilot study showed that the decision to move to elderly living in the form of nursing home often is made by social authorities the focus was shifted to those considering downsizing within the ordinary housing sector. In total 1000 questionnaires was sent out to households in the age group 65-85 year within the ordinary housing sector, out of which 660 answered.

The study has only covered the information aspect to a minor extent, but if a person is satisfied with their current situation, as most households were, it should be lack of incentives rather than lack of information that is that prohibits the move, except for the oldest categories. Concerning the tax system, the study does not indicate that this is something that prohibits the elderly from moving, but this conclusion may depend on the price level of dwellings and it is therefore hard to generalize. Even if the tax system is not a problem, the concern for the monthly expenses is more of a problem. The monthly expenses may increase while downsizing because this may mean a newer and therefore more expensive dwelling. As the social network decreases with age and the health may deteriorate it may be possible to influence especially single-person households over 80 year that live in 3-5 room. Here direct subsidies to downsize and help to find better alternatives – like in U.K - might help elderly to go through with a move.

Contents

1.Introduction

1.1.Background

In the Swedish debate on housing policies one issue is the turnover in the housing stock. There is an underlying hypothesis that households are staying too long in their current housing because of various obstacles. Kulander & Lind (2008) e.g. shows that capital gains taxes can increase housing costs when a household moves. The effect of people not moving "enough" is that the housing stock is not used in an efficient way.

In the current study the focus is on the age group 65-85. The question "Do the elderly move at the right time?" does implicitly contain two hypotheses. Are the household staying in their current home because direct utility in relation to cost are the highest there, or are they staying because there are some kind of transaction cost that "prohibits" the elderly from moving? If there exist a better option but the household still do not move, this would imply that the current situation is not Pareto-optimal. It would be possible with an improvement, but this is still not carried out.

Transaction costs may arise in different ways – it may be financial (e.g. transaction taxes) or it may be psychological or it may be a combination of both. The concept of transaction cost will be discussed in more detail in chapter 3.

The counterhypothesis would be that we see a new trend where elderly people demand more of their living than earlier and are willing to pay for larger homes? The people that were born in the 40's tend to be richer and healthier than those that were born in the 30's and they may also have other preferences (see Abramsson (2004)), that make it rational for them to stay in a larger home instead of moving to something smaller.

From a more theoretical perspective the question in this thesis can also be related to the *lifecycle model*, according to which elderly people move to smaller dwellings when they stop working and their children move out, and thereby start moving chains that gives younger people a chance to do a "housing career" (see for example Emmi & Magnusson (1994) and Andersson & Magnusson (2006)). These moving chains would lead to a more efficient use of the housing stock.

1.2. Purpose of the thesis

On a general level the purpose of the thesis is to increase our knowledge about how elderly people look at their housing situation, their housing choices and their options. The study will focus on Gävle, a Swedish city with around 70 000 citizen.

From a more theoretical perspective the aim is to investigate if the existence of transaction costs leads to a situation that is not optimal – here in the sense of Pareto optimal. What are the options of the elderly and why is a certain option chosen? Are they in general satisfied with their situation or do they feel that there are obstacles that restrain them from moving to either a smaller ordinary home or to some kind of elderly living?

The policy in Sweden has for many years been to help the elderly to stay in their home as long as possible. Instead of moving to some kind of elderly living, the elderly can get various kinds of home service for a reduced fee. This means that it is important to separate the question are the elderly moving to something smaller at the "right" time and the question if they are moving to some kind of elderly living at the "right" time.

The purpose of the thesis is also to discuss policy implications. In U.K Burgess (2012), analyses the introduction of a national information and advice service for elderly. According to her the elderly feel more confident in making decisions after using the service, and the government could actually save money by helping the elderly with advice about housing, care, finance and rights.

1.3. Disposition of the thesis

Chapter 1 is the introductory chapter that consists of background purpose and disposition. Chapter 2 introduces elderly living in Sweden (2.1) and in particular Gävle (2.2), with concluding comments in 2.3. The term transaction cost in general is introduced in chapter 3.1 as it has been interpreted earlier in the literature. Chapter 3.2 is a literature review of what has been written especially about the elderly population and in chapter 3.3 the different hypotheses that are tested in the chapters that follow are presented.

Chapter 4 is a method chapter which shows how the subject is approached in a pilot study as well as the main questionnaire, and also why the choice was made to send out the questionnaire in Gävle. In the following chapters – chapter 5 treats the pilot study while chapter 6-10 treats the questionnaire.

In more detail chapter 6 gives background information on the respondents, chapter 7 describes the current housing situation, chapter 8 search cost and uncertainty aspects, chapter 9 the administration and financial aspect, while chapter 10 treats the social aspects.

Chapter 11 concludes the study with a more analytic chapter, where the hypotheses are evaluated and policy implication is discussed.

2.Elderly Living in Sweden and the case study Gävle

What is the policy for the elderly in Sweden in general and Gävle in particular? This chapter treats these subjects.

2.1Elderly Living in General

The terms used for different types of elderly living have been somewhat confusing, and because of that an Elderly Delegation working for the government suggested in the report "Bo Bra hela livet" (SOU 2008:113) that the following terms should be used :

- "seniorbostäder" (senior living),
- "trygghetsbostäder" (security living) and
- "vård och omsorgsboende" (nursing home)[1.]

The difference between these terms is the level of service/help that is available for the household. Senior living is just apartments within the ordinary housing sector with a specific target group. Security living is built for the elderly and have some extra services but it is e.g. not staffed the day around and the elderly living there get the same kind of "home care" as other elderly. Nursing homes are primarily for people that need continuous care and cannot take care of themselves in an ordinary apartment.

The current supply of nursing homes is, according to the report mentioned above, not sufficient in half of the municipalities in Sweden but while there is a possibility to receive subsidies for the investments it is not yet clear about the demand for the special living and who is responsible for the provision. From the year 2000 until 2008 the supply of senior living have however increased from 11 000 to almost 32 800, which indicate that there is a demand for that kind of living.[2] Regardless of the kind of living the municipalities supply, it is by the law SoL (2001:453)[3] forced to

> *"work for the possibilities for elderly to live and inhabit independently with safe conditions and have an active and meaningful being in community with others"*

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[1] See also Omvårdnadsnämnden Dnr 10ON69
[2] Bo bra hela livet, (2008), chapter 11:4
[3] Socialtjänstlagen. The original text in Swedish is *"att verka för att äldre människor får möjlighet att leva och bo självständigtunder trygga förhållanden och ha en aktiv och meningsfull tillvaro i gemenskap med andra"(chapter 5)*

Nowadays people are relatively healthy at the age of 65 year why they may want to stay in their home as long as possible. There may therefore be a new role for the current type of senior living, and that more effort is put on the newer kind of living called "Trygghets-boende" (security living) with an older target group instead. Another option is to have senior living and security living in the same area but in different houses so that the adjustment to a less active living goes slower and in several steps.

A number of alternative paths are possible when making "housing careers". The figure below, figure 1a-1c, shows different possibilities. One option - the reference line below - is to stay in the same housing unit and rely on home care until death. In figure 1a-1c a number of examples are described, with 1, 2 or more moves. . In all cases there might be shorter visits to hospitals, but if a person needs more continuous care it is assumed that they will be moved to a nursing home. Therefore hospital visits are not included in the figures.

Figure 2.1a: Different processes with one move, reference line are living at the same home,

Retirement   Death
Live at the same home / live at the same home with home care (dotted line)

Live at original home

Moving to a smaller home

Live at original home

Senior living

Live at original home

Security living

Live at original home

Nursing home
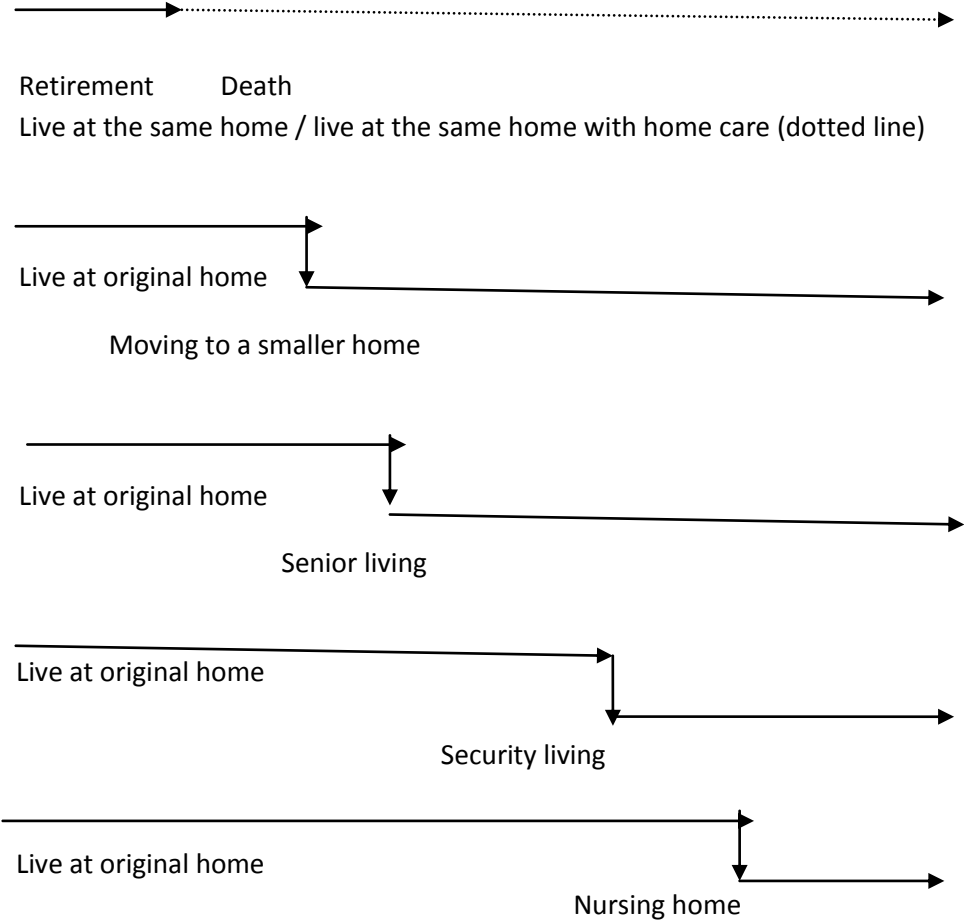
Figure 2.1b: A process with two moves

Live at original home

Move to smaller

Security living or nursing home

Live at original home

Security living/Senior living

Nursing home
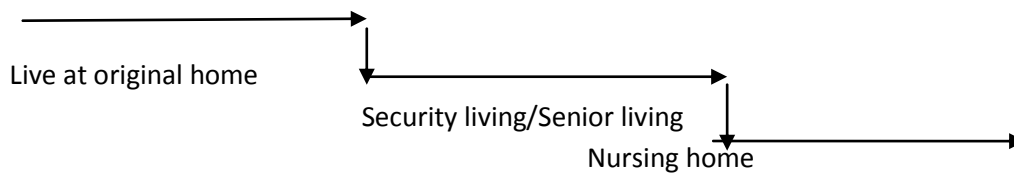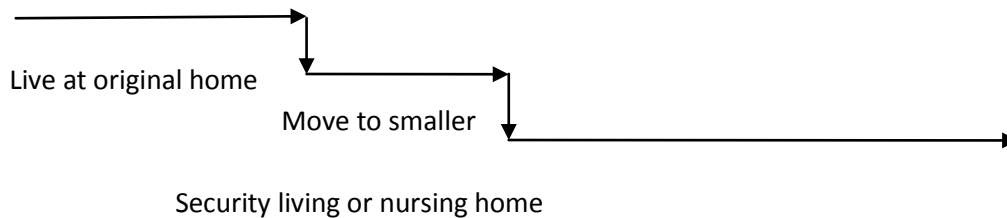
Figure 2.1c: A process with more moves

Live at original home

Move to smaller

Senior/Security living
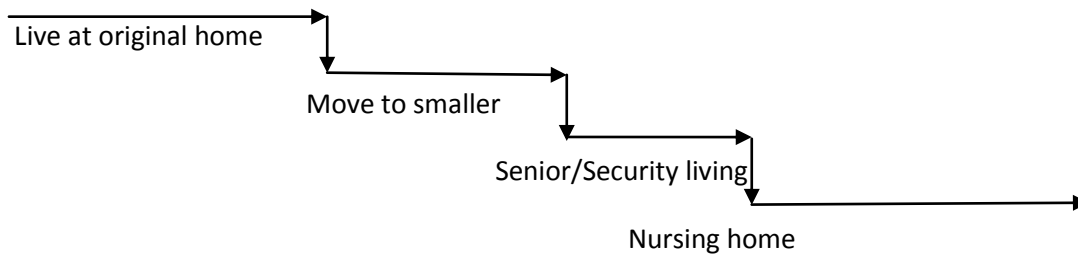
Nursing home

2.2 Elderly Living in Gävle

In this section the situation in Gävle is described. As the legal framework is the same in all municipalities some of the description is more general.

When an elderly person wants to become a resident of a nursing home he or she has to contact the nurse in the district he or she belongs to. Thereafter a judgment of the person's need of aid is made by an executive officer. Within a week he or she is allowed to have information about who is responsible for the case and how long the waiting time is in the queue.

Once the applying person is considered "sick enough" he or she has the right by law (Socialtjänstlagen) to have an apartment within three months[4]. The amount the resident pay is in part a normal rent and in part the fee for meals and for the aid he or she gets. The fee is dependent on the income. The contract is a normal leasing contract but there is a nurse available in the house at all times, that may be consulted according to the decision of the aid.

In Gävle the queue is administered through the "humanitarian aid unity" (biståndsenheten) called "Omvårdnad Gävle", and as a becoming resident the person may choose which of the nursing homes he or she want to move into, but the queue is common for all nursing homes, so often the person in the queue has to move in where there is an empty apartment. It is not only time in the queue that is important – more important is who is in most need of an apartment at the nursing home at a certain point in time. If not content with the decision, an appeal against it should be handed in within three weeks.

In Gävle the person have about a week to considering moving in once the offer has been given. If the person does not move in when offered, he or she will be last in the remaining queue, because the need is not considered to be acute. There is a small possibility to change nursing home by enter a transfer-queue once a person have moved in, but often it is too much trouble moving once again and the person is often content with the original placement, once he or she has moved in[5]. At present a few apartments are reserved for couple living, but it may be more in the future as there was a change in the law 2006 giving couples stronger right to share an apartment even if their needs differ.

In Gävle the rules for aid in the current living are that a person has the right to have help within 24 hours if it is acute, otherwise 14 days. Overall the age of the person is not enough to get help, but if someone is 75 years old he or she has the right to do a simplified application that enables him or her to get a few or all of the following[6]:

- Cleaning every third week
- Washing every third week
- Shopping once a week
- Food delivery – one get to choose from a menu dishes and the number of portions one want every week.
- Security alarm – links directly to alarm central by pushing a button (to acute alarm due to sickness or if you are afraid of falling and the alarm is needed as an extra security).

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[4] More information about this may be found on http://www.gavle.se/Omsorg--hjalp/Boenden-sarskilda/Aldreboende-/
[5] This is in line with the interviews with the executive managers.
[6] More information about this may be found on http://www.gavle.se/Omsorg--hjalp/Hjalp-i-hemmet/Hemtjanst/Forenklad-ansokan-om-viss-hemtjanst/

A simplified application may be used if the person need up to five hours help a month – for more help a larger investigation is needed.

Even though the details of supply and applications are not known to everyone, the term nursing home is not unfamiliar in general. Talking about senior living there is however confusion about the definition of the term, although there is an increasing interest of the subject among the different pensioner associations.

The name *senior living* has not a single definition in Gävle but is instead a group of different types of livings with common areas for eating and meeting the neighbors for persons above at least 55 year. In Gävle most of the rented apartments belongs to the municipality and its company Gavlegårdarna. The company has about 600 apartments but 50-60 more apartments are on its way to be built in cooperation with "Omvårdnad, Gävle". In private regime there are also apartments to be built in Norrlandet and Söder, respectively, but with the municipality as a land owner.[7]

2.3 Concluding comment

Although there is an increasing interest of elderly living, the official policy in Sweden is not primarily to help people move into nursing homes but instead to help the elderly to stay at their current living as long as possible.[8]. This is done by offering home care in different ways at different levels. At some point the home care is however not enough and the person in question is in need of moving to a nursing home.

When the person is still healthy, but wants to plan for a situation when he or she need more help, the process may be in several steps with senior living and/or secure living in between living at home and living at a nursing home. In this case the person is first moving within the ordinary housing sector of her or his own free will, without any decisions from social authorities. Senior living is for elderly people that are still active, while security living is for elderly people that needs more help and/or contacts with other elderly and wants a secure environment where there may be a nurse in the building. Often those that are in their 60's are a target group for senior living while those that are in their 70's are the target groups for security living, but this is flexible and differs between municipalities. In Gävle the municipal housing company Gavlegårdarna for example has rented apartments called Tryggbo where the person moving in has to be above 50 years old and without children at the time of the move. In spite of the name this is more of a senior living than a security living.

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[7] Omvårdnadsnämnden DnrON69 (complemented with a news article from Arbetarbladet: http://arbetarbladet.se/nyheter/gavle/1.5171532-alderholmen-far-aldreboende)
[8] For example Regeringens proposition 2011/12:147

If there are different kinds of housing alternatives for the elderly those that only want to move for the company may want to move to a senior living instead of a nursing home and those that are only slightly ill may choose a security living, while those that really are in need of a nursing home may have the opportunity to move earlier because of a shorter queue. Many steps in the process means however many physical moves for the elderly and higher transaction costs.

3.Theory and Literature

This chapter discusses the concept of transaction cost and previous literature about transaction costs and elderly living. Transaction costs may in the broad sense be defined as anything that, beside the situation of the household and the characteristics of the housing alternatives, affects the housing choice. It can be seen from an external or outside perspective with welfare effects in mind. This means that taxes and/or transfer payments matters. It t may also be seen from the internal or inside perspective as something that concerns only the person or household that is thinking of moving. In this case also non-financial transaction costs matters, e.g. consequences for the person´s social network.

A systematic overview of the most important literature can be found in Appendix 1.

3.1 Literature on transactions cost in general and their effects on the housing market

Quigley (2002) focuses on welfare effects on housing markets in his writing about transaction costs for renters and buyers. He identifies different categories of impediments from having a frictionless housing market. He handles the deviation from frictionless competition in giving a review of sources of transaction costs in especially the U.S and Britain. He divide the impediments in the housing market into five categories – search costs, legal and administration costs, adjustment costs, cost of uncertainty and the financial costs - where the adjustment cost may include both physical and psychological costs.

The *search cost* is due to the heterogeneity of a house which gives the need for a physical inspection if the buyer or renter is interested in the object. In his study this corresponds to between one half and one workweek. To some extent, the cost has diminished because of technology and the existence of online services, but if a person are really interested in an object inspection on site is needed. To reduce the cost even more Quigley (2002) suggest that the government should take a more active role in providing information. Also Burgess (2012) states the importance of information and advice when making a decision to move. This type of services may save money not only for the household but also for the local government. Burgess (2012) refers to FirstStop Advice as an example of this in the U.K.

Legal and administration costs affect renters' cash flow, but often the fees are returned when the contract is terminated. For buyers the fees are substantial in the form of ad valorem fees like stamp duties. If lawyers are required in the transaction the fees are even higher. Quigley (2002) refers to administration costs of up to 3 % of the value of the house,

and aggregate transaction costs of up to 12 %. Adjustment costs, like transporting furniture, are depending on the distance of moving but an average cost of intrastate moving in the U.S of $ 9000 for the year 1998 is mentioned.

Socio-economic adjustment costs – for example to move to an area where there is a higher average income - are estimated to be quite high, but are harder to measure, and depend on how long the household has lived in the former area and if the monthly income is expected to be higher, when living in the new area.

Judd et al (2012) discusses downsizing in Australia and the possible factors behind it, and also if *the lifecycle model* is applicable. This model is originally economical but Judd considers it to be gerontological and it assumes that a person does a housing carrier as income increases, but this means also that a person downsize when retiring as income decreases, and the family tend to be smaller. As alternative models Judd et al (2012) discuss *the housing equilibrium model* and *the life course model. The housing equilibrium model* is economical and assumed underutilization of the house as one get older, while the life course model is sociological and takes into account labor market history, family structure, and superannuation etc. Judd et al (2012) found life style preferences as the most common answer to why someone moves, even if negative shocks also are discussed as an important factor.

The cost of uncertainty is, according to Quigley (2002), a cost that depends on the interest rate, taxes and expectations of the prices of houses.

The financial costs depend on the contracts of mortgage and interest rates compared to the market interest rate. Many household also have less ability to borrow, due to low creditworthiness, which affects their decision of being a renter or a buyer.

Many authors focus on the effects of transactions cost without being specific about what is included in the definition of transaction costs.

Van Ommeren (2008) discusses transaction costs and misallocation from the perspective of microeconomic welfare theory. He comes to the conclusion that the existing residential situation is not optimal because of the existence of transaction costs in the form of lump sum taxes, which is often used in European countries. The transaction costs in turn leads to reduced residential mobility and effects on the size of the housing stock and also have effects on allocation in other markets, including the labor market.

One way to find out how large the welfare losses are is to compare the housing situation of recent movers and other households with similar characteristics. Edin & Englund (1991) discuss the role of recent movers when discussing transaction costs, because they tend to be nearer the equilibrium point than households that have been living in the same dwelling several years.

Haurin & Gill (2002) focus on transaction costs and the household´s planned duration of stay in a dwelling. Because of the certainty of length of stay when working in the military, Haurin & Gill uses data over married men working in the military. Given the length of stay they then analyses the choice of dwelling – homeownership or renting – from the hypothesis that the number of homeownership increases when the length of stay increases due to reduced annualized transaction cost. The conclusion is that the hypothesis is confirmed.

In the Swedish literature there are several studies that look at transaction cost in the context of "moving chains" and how one household moving opens up for other households to move, see e.g. Emmi & Magnusson (1994) and Andersson & Magnusson (2006).

An alternative to moving may be to renovate and high transactions costs may lead to people staying too long in the current house/apartment, and to too much resources being spent on renovation. This is analyzed by Goodman (1995).

In the previous literature there are also discussions about policies to reduce transaction costs in order to increase welfare and make it easier for a household to move to what is an optimal housing situation. One way to decrease transaction costs might be to include some kind of transfer payment as Venti & Wise (1984) suggest. The consequences of this given a number of assumptions are analyzed in their article.

In summary one can say that the economic literature shows that there is a dead weight loss from transaction costs and that this would imply that households in general stay too long in their current apartments. Policies to reduce transaction costs would increase welfare and improve the use of the current housing stock, which also would imply less need for new construction and less risk for "over-renovation". From a theoretical perspective a possible counterargument to this would be that there are negative external effects of a move, e.g. on neighbors that lose part of their social network. In the end this is an empirical question but no direct studies of this have been found.

3.2 Literature Review concerning transaction cost and elderly living

A number of studies focus more specifically on the situation of the elderly. Stimson & McCrea (2004) have both an inside and an outside perspective discussing both "push" and "pull" factors9 when moving. The path of decision according to Stimson & McCrea is shown in Figure 3.1 below (in the original text figure 1).

Figure 3.1: Stimson & McCrea (2004) – push-pull-factors

A push–pull framework for modelling the relocation of retirees   1457
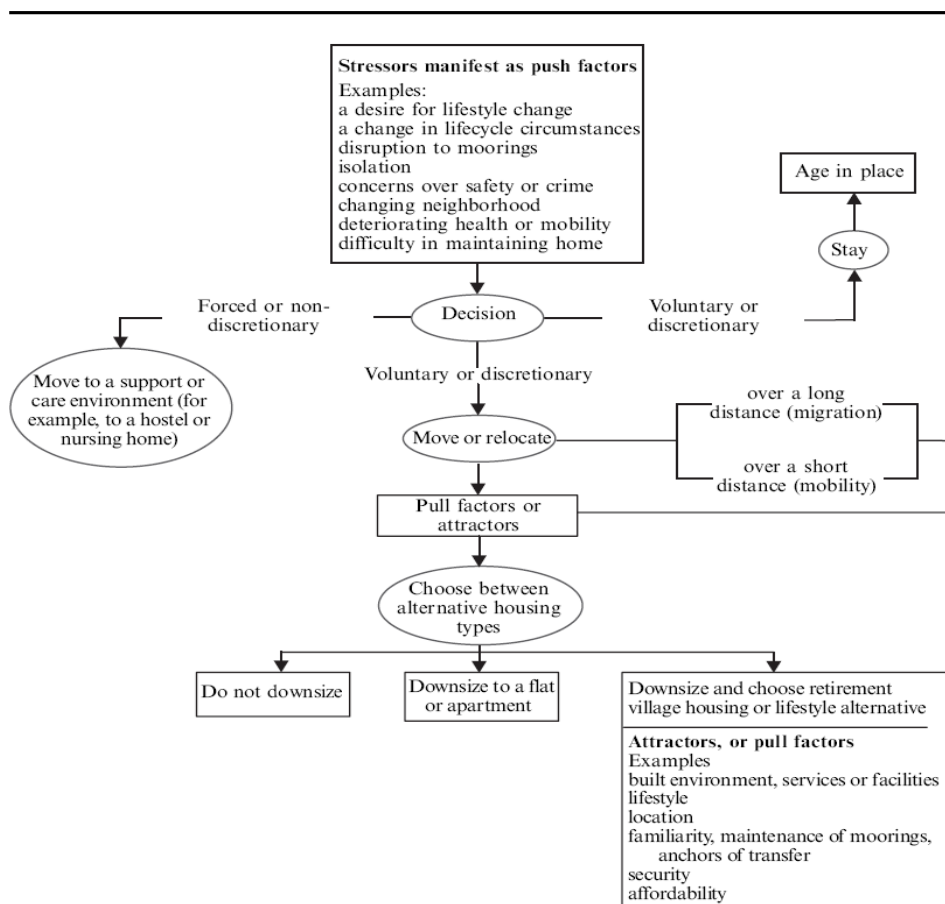
Figure 1. Decision choice factors and the advantages and disadvantages of various housing options for older persons.

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9 Push-factors are factors that push people away and therefore make them move from a certain place, while pull-factors are factors that attract people to a certain place.

To investigate push- and pull-factors Stimson & McCrea (2004) use factor analysis and the most important push factors they found had to do with health issues, need of assistance and the death of a partner or a felt need of "change in lifestyle", "maintenance", "social isolation" and "health and mobility". The authors divide the people into proactive retirees and reactive retirees. Seventeen pull factors are grouped into three categories - "build environment and affordability", "location", and "maintenance of existing lifestyle and familiarity"- and the residents are then asked to rank five out of the seventeen. The result of the relative importance of the pull factors is shown in figure 3.2 below.

Figure 3.2: Stimson & McCrea – Relative importance of the pull-factors
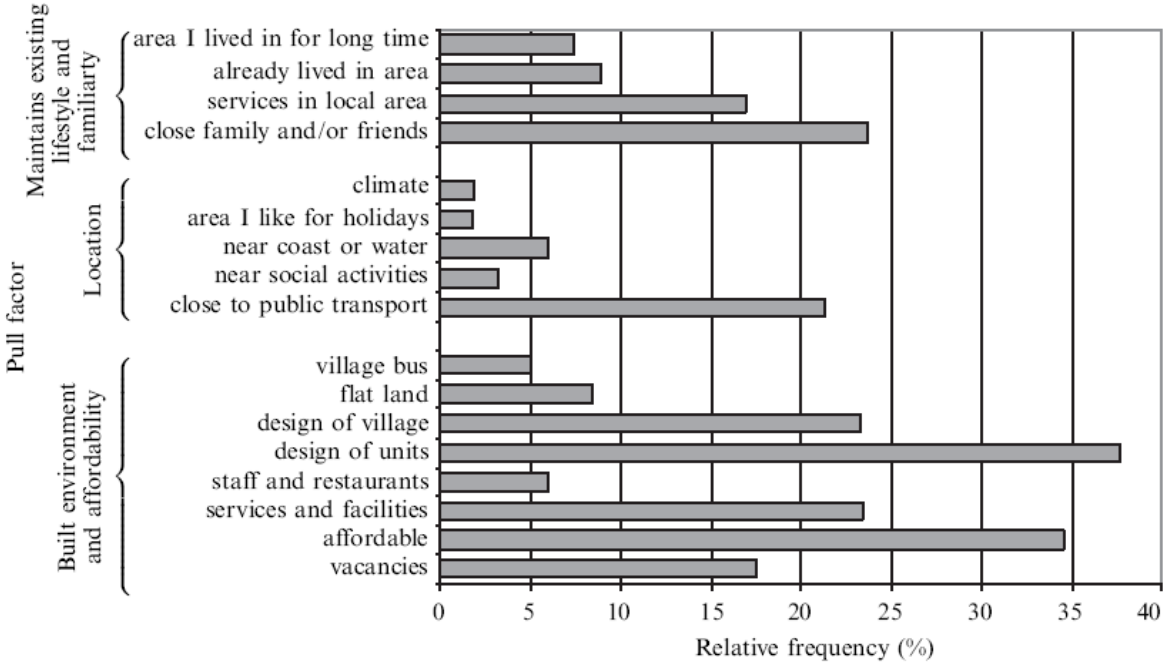
Figure 3. Relative importance of reasons attracting retirees to move to their retirement village (source: authors' survey).

Among the results can also be mentioned that age is one push factor, especially when you are 85 and older. An important factor explaining why the elderly is not moving earlier is the rootedness many Australian feels – they want to stay in their homes as long as possible. However, a small group of about 3 % is moving to retirement village residents, and the data the authors are using also comes from a national survey of retirement village residents, showing a decision in the past. According to the authors the residents often comes from a white-collar background that owned their former home. They move in at the age of between 70 and 74 years- often to a place within 20 km. About 60 % lives as a couple while 40 % live alone – most of them women as they tend to live longer.

21

Abramsson (2004) – also with more of an inside perspective - has similar thoughts when using *activity theory* – which sees the elderly as wanting to lead an active life and sometimes move to a more central and maybe smaller apartment - and *continuity theory* – which focus on elderly wanting to continue leading the life they live in the dwelling they already live in. What makes a person belong to one or the other group? Are there differences in transaction costs, so that some groups have higher transaction costs? The group of people that were born in the 40's is of special interest because they tend to have other preferences and other possibilities than the group of people that were born in the 30's? Does that mean that there are more movers in that particular group of people that was born in the 40's? Does it matter what kind of dwelling a person already lives in if he or she are a mover or not? These are questions that are put forward and some of which I am going to look further into in later chapters.

Also in Abramsson and Niedomysl (2008) there is an inside perspective. They have made a survey of the need of different kind of housing for the elderly in Sweden, and they have found that the housing environment have more impact than monetary transaction costs. The authors made an enquiry of about 40 questions 2007, to persons moving more than 20 km during the year 2006. The study was focusing on persons 55-74 years old because those born in the 40's are of special interest - in part because they have better income and other preferences and in part because they are the first group that moved to an own apartment, before getting married. The main question in their study was "what was the most important factor that made you move?" The elderly want a safe environment with accessibility – for example the existence of an elevator was an important factor as well as nearness to relatives. The area also needed to have a good reputation which sometimes means the same as "many elderly people are living there". Because of this, some communities now have focused on special areas called "Tryggbo" or something similar (Trygg is the Swedish word for safe) where the target groups are households with the age of 55 and above. (In for example Gävle there are, as mentioned in the last chapter, plans of increasing the number of apartments of this kind.)

The most recent study found on moving patterns of the elderly is Gibler & Clements III (2011). They developed a model for investigating Americans' demand for senior living (a logistic regression model) that can also be used for predicting housing choice. The study is testing whether the model distinguishes between movers who choose conventional housing and those who choose age-restricted or retirement housing. Data between 2002 and 2004 from Health and Retirement Survey is used. They investigate actual movers aged 65 years and above during the year 2002. The only significant and stable variable of the model they find is age and their conclusion is that segmentation on the different housing type is needed to find a robust model, when looking at the housing choice.

3.3 Hypotheses:

In the previous chapter it was noted that moving to a nursing home is typically not a voluntary decision but determined by the health situation – a fact also mentioned in Abramsson & Niedomysl (2008). The interesting group to focus on to investigate the role of transaction costs must then be people who now live in ordinary housing, and are healthy enough to decide for themselves if they want to move, and where they wanted to move.

The purpose of the current study is to analyze the role of transaction cost for this specific group. To get an inside perspective a categorization like the one in Quigley is used. The categorization of different transaction costs makes it possible to distinguish various more specific hypotheses concerning what can make the elderly move "too late". Quigley's "search cost" and "uncertainty" are put together to one category as they may be similar and may interact as well as the "administrative" and "financial aspects". The groups of factors discussed are then as follows:

1. Related to search cost and uncertainty: Are the elderly well informed about alternatives on the housing market? This and similar questions are looked into in chapter 8 and the answers are discussed in chapter 11.1.1.

2. Related to administrative and financial aspects: Do the elderly stay longer in their apartments because of e.g. transaction taxes and other direct expenses related to moving. These and similar questions are looked into in chapter 9 and the answers are discussed in chapter 11.1.2.

3. Related to social aspects: This is related both to fear of losing their network and also that the household may lack friends and relatives that can help with practical things when moving. These and similar questions are looked into in chapter 10 and the answers are discussed in chapter 11.1.3.

In the inside perspective also the *push- and pull factors* mentioned in Stimson & McCrea (2004) as well as the *activity-/continuity theory* mentioned in Abramsson (2004) is used and analyzed. Evaluation from the perspective of different age categories is discussed in chapter 11.2. Thereafter a more outside perspective is used in trying to suggest some future policy implications. These are presented in chapter 11.3.

4. Method

In order to understand the institutional structure of elderly living and get an overview of the issues a qualitative pilot study was made during 2011. This included persons working in nursing homes in Gävle and elderly people living at nursing homes in Gävle. After conducting the pilot study, a questionnaire was sent out to habitants in the age of 65-85 year, living in different kinds of housing within the ordinary housing sector in Gävle. The pilot study gave a good overview of the institutional settings and made it easier to create a questionnaire with relevant questions.

4.1 Why case study Gävle?

The focus of the study is Gävle - a medium sized city of about 70 000 inhabitants, approximately 100 km north of Stockholm. The housing market is in general at equilibrium, according to demand and supply, and the prices are about the average for the Swedish housing market which makes Gävle an interesting example. As an average it is possible to buy a small or medium house for 2-3 million SEK. The growth trend of the population in Gävle is similar for the oldest categories as in Sweden in general but still for the years 2013-2020 most of the increases is seen in the age category
65-79 year.[10]

Gävle has a tradition of having researchers, active within the housing sector and some of the research institutions are situated here. This is one of the reasons why this study is carried out in Gävle – another is the easy access to the elderly when performing the pilot study. Moving chains has been studied earlier in Gävle by for example Emmi & Magnusson (1994) and Andersson & Magnusson (2006) but not with a focus on the elderly. According to the lifecycle pattern elderly people move to smaller dwellings when they stop working and the children moves out and thereby start moving chains that gives younger people a chance to do "housing carrier". If the market is considered to be in equilibrium with an outside perspective, does that mean that it is also in equilibrium with an inside perspective? Is it still possible to do a "housing carrier" with the policy to help elderly stay as long as possible in their current home? Is it still possible to downsize according to the lifecycle pattern?

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[10] Omvårdnadsnämnden Dnr 10ON69

The situation for the elderly might be different in the largest metropolitan areas (Stockholm, Gothenburg and Malmö) where prices are higher and queues to rental apartments are longer, and looking at these regions is an interesting topic for further studies.

4.2 The pilot study

The study began with a pilot study of nursing homes. The method used was personal interviews using a general form, but in complement the persons´ comments were written down. Two different groups were interviewed – each with separate forms that reflect their perspective. As a first group the managers of the nursing homes in Gävle were interviewed to get their view of the statistics of the people living and moving into the nursing home. These questions reflected an outside perspective. After interviewing five managers it was evident – especially from the extra comments from all of the managers – that the decision to move is up to the social authorities more than the person that is moving, and the study was not extended further. The managers were instead asked about the possibility to interview some of the residents at these five nursing homes. As a result residents were interviewed in a second group, using a different form, with notes as a complement. These questions had more of an inside perspective of why they moved at a certain time.

The residents were asked by the manager so that they were healthy enough to answer the questionnaire. No one was forced to answer the questions. There may be a selection bias because of this but otherwise the risk of the person having dementia would arise. The goal of the interviews was to interview about 5-10 persons at each nursing home. Due to the high age of the residents it was difficult to find interviewees, but as a total 18 residents was found for interviewing.

4.3 The questionnaire

After conducting the pilot study it was evident that it was only those living within the ordinary housing sector that was possible to freely choose when and if to move. A questionnaire was thus sent out to persons in the age of 65-85 year, living in different kinds of housing within the ordinary housing sector in Gävle. Certain postal numbers were chosen by the available municipal statistics of different kinds of housing in different areas of Gävle,

to get a good variation between tenures[11]. After choosing the postal numbers, the addresses were provided for by SPAR ("Statens personadressregister") through the tax authority.

Within the chosen area and criteria 5 000 addresses were available. Those living at addresses that were recognized as nursing homes and those that seemed to have a trustee (c/o address) were removed. Those living at the same address (married) were put together as one addressee, after which about 4 000 addressees remained. The goal was to send out 1000 questionnaires and every fourth address was therefore chosen, starting counting at a number from 1 to 4 randomly selected by computer for each postal number. The addressees were asked to send in the questionnaire within a week if possible but all answers were welcome. In total 660 answers out of 1000 were sent in. No reminder was sent out as the questionnaires were not marked in order to guarantee anonymity for the respondents.

Van Ommeren (2008) divides the market into the regulated rental market, the unregulated rental market and the owned market. The Swedish market differs in the way that instead of an unregulated rental market it has co-operated dwellings that are traded on an unregulated market ("bostadsrätt") that can be seen as a form of condominiums. As mentioned above the addresses were chosen in such a way that rental apartments co-operate dwellings ("bostadsrätt") and single family houses all would be included in a reasonable mixture.

The questions asked are inspired by the categories Quigley (2002) use in his article. In the category adjustment cost the study however included what Venti & Wise (1984) call psychic cost to get the inside perspective in a good way. Included in the questionnaire was also a question about length of stay – a factor that is important in Haurin & Gill (2002), Edin & Englund (1991) and Goodman (1995) to get an outside perspective. In the questionnaire the households are also presented to different statements to which they are to respond to what extent they agree – a method sometimes used when analyzing attitude questions. Here it is used on questions concerning transaction costs both from an inside and an outside perspective.

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[11] Postal number 80430–80439, 80630–80639 and 80250–80269

4.4 Hypothesis testing

The purpose of the thesis was both to have an inside view and to have an outside view of the transaction costs. The aim was not only to answer the question of the role of transaction costs but also to relate the answer to various characteristics of the household, primarily age and current tenure form. The general expectations ex ante is that transactions cost would increase with age and also be higher for owners than for renters. In order to test if there were any significant differences ex post between these groups goodness of fit tests are made.

The formula for chi-square-value, goodness of fit tests is

$$X^2 = \sum_{i=1}^{K} \frac{(O_i - E_i)^2}{E_i}$$

where i = 1 to K represents, for example, the different age categories, E = expected value and O = observed value. The degrees of freedom (DF) are (K-1). See Newbold (1984) for a detailed description of the method. The method is used throughout chapter 6-10 as bases for the arguments for the conclusions.

5.The Pilot Study

5.1 Introduction

As an introduction to the main questionnaire study a pilot study was made during 2011 focusing on persons living at nursing home in Gävle. The questions were focusing on transaction costs that may arise when moving when you are older and differed from the final questions used in the questionnaire sent out within the ordinary housing sector.

There are about fourteen nursing homes in the central part of Gävle. Of these at least a third are specialized either for short term living or for people with dementia. Of the remaining nursing homes eight managers were available and out of them five was welcoming me within a reasonable time and three asked me to call back a month later because they were very busy at the moment. The method used was personal interviews using a form with questions (see appendix 3 and 4) but with complementary notes. As a first group the managers were interviewed of the nursing homes in Gävle to try to get an outside perspective.

5.2 Interviews with managers

From the answers of the managers the conclusion was drawn that most of the persons that are moving into a nursing home are women and many of the residents are in the age group 75-84 when they move in, even if the average age living at nursing homes often is older than 85 year.

The answers to the question if the residents move at the right time differed between the managers. Some thought the residents moved when they wanted to, at least seen as a group, while others thought that they stayed in their home longer nowadays and therefore in some cases moved later than they really wanted to. After interviewing the five managers it was evident – especially from the extra comments from all of the managers – that the decision to move is up to the social authorities more than the person that is moving, and therefore no further contact was made with the remaining nursing homes in Gävle. Instead a visit was made to interview some of the residents at three of the five nursing homes[12].

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[12] The different nursing homes were situated in Andersberg, Stigslund and Vallongården, Söder. Interviews were also made with the managers in Sofia Magdalena, Öster and Sjätte Tvärgatan, Brynäs, but no further interviews with the residents were made at neither of those nursing homes.

5.3 Interviews with residents

A special list of questions was used when interviewing the residents (see appendix 4). The residents were chosen by the manager so that they were on the one hand healthy enough to answer the questionnaire and on the other hand did not feel that they were forced by anyone to answer the questions. The goal of the second step of interviews was to interview about 5-10 persons at each nursing home. Due to the high age of the residents it was however difficult to find interviewees, even though the nursing homes with most residents that have dementia were eliminated.

When the pilot study was planned an intention was to investigate certain hypotheses. The first of these hypotheses was the following:

> *Hypothesis: "Those who move into a nursing home are often very old and move because of their health"*

The residents that were interviewed were quite old. The youngest was 80 years old and the oldest 102 years old. One of the residents had lived in the nursing home for five years, but most of the residents that were interviewed had lived in the nursing home less than one year. The interviewees do not have much of a choice when moving, as they were primarily moved because of their health.

The next hypothesis was the following:

> *Hypothesis: "As transaction costs is lower for tenants more people in the nursing homes would come from rental apartments"*

Many of the interviewees had once had a house, but had moved to an apartment before moving into the nursing home. Most residents thus really seems to have lived in a rented apartment earlier, but in the cases where the residents moved due to sudden illness there may be less of a planning and smaller role of transaction costs, so that they may still own the house or relatives were moving into the house. In some cases a condominium is seen as an investment as well as somewhere to live, and therefore there is a tendency to move to a condominium rather than a rented apartment. As the residents started talking of their earlier life there is a tendency for them to think back some years rather than think of their latest living arrangement.

The third hypothesis was more general

> *Hypothesis:" It is those with the smallest transactions cost that move first"*

One question in the questionnaire was if there was something special that made the residents continuing living at home instead of asking for a place in the queue to a nursing home. Were there any so called pull factors that made them less interested in moving? About 10 residents said yes and 8 residents said no. The reasons for continuing living at home was often that they liked their home, sometimes had a garden they liked but that they successively became more ill and that they at first did not discovered how much help they needed. After a while what once pulled them to stay in their old home became a push factors. If interpreting this as if a person has a nice home he or she feels that the transactions costs are high, the hypothesis that say that those with the smallest transaction cost move first might be true. A few also answered pure laziness as an argument. Sometimes when the residents moved in to the nursing home it was a pleasant surprise, because they did not really knew what it was beforehand, which raise the question of if the elderly have enough information to do a rational choice about moving.

Looking from the inside perspective, many of the residents felt that they were alone at the time of moving and were often a widow or a widower, and some needed so much help, physically, that they had no alternative – often also because of bad eyesight. "There was such a silence at home" two of the interviewees said, two that had become friends at the nursing home. However to make new friends was not easy - at the nursing home the interviewees made acquaintances at the lunch table but it was hard to find new real friends. In many cases the old friends had died, but some of the residents had at least one old friend left that made them feel less alone, or in some cases they had contact with the Red Cross or a similar organization. The friends often encouraged the residents to take part in different activities but in some cases the residents were too sick to participate. As much as 12 persons of the interviewees feel safer after moving, 2 persons felt safer at home before moving, while for the rest of the persons they both felt safe at home and they feel safe after moving. 6 persons recognized better the staff at the nursing home compared to the staff at home care, while one person said the opposite. Some residents had nothing to compare to as they did not have home care earlier.

Most of the interviewees answered that they moved at the right time because they wanted to live at home as long as possible – just as the current policy says - but some of them also mentioned that they didn´t detect the fact that they, themselves, were too old or too sick to live at home. Sometimes one person in a couple was living at the nursing home and the other one was healthier and lived at home, but visited often. 10 persons of the interviewees answered that the relatives came to visit more often while 4 persons said that the visits were more seldom since they moved. The rest mentioned that the relatives came to visit as often now as before they had moved. An often heard sentence was also "they come when they have the time" – an answer that is not always easy to interpret. The cost of living was nothing that the residents thought of – the relatives took care of that. Some mentioned a

sum of around 8 000 SEK a month, but some things were not included in that sum and it was not completely clear what the amount covered.

5.4 Concluding comment

The most important result from the interviews in the pilot study was that moving into a nursing home was to a large extent determined by health and not so much of a choice. As there is a decision from the social authorities when moving, some of the residents – with the help of worried relatives - had earlier tried to move but were considered too healthy although they were in their 80's or 90's. Because of these results the focus was shifted to elderly households living in the ordinary housing stock.

6.Background information on respondents

From the theoretical chapter – chapter 3 in this study – can be seen that age, duration or length of stay and type of dwelling can be important. The answers of the questionnaire presented in coming chapters will be related to different background factors, in particular age (see appendix 2). In this chapter information is presented about the structure of the respondents in different dimensions.

6.1 Age of respondents

The age of the respondents is presented in Figure 6.1. Most of the people who answered the questionnaire were younger than 75 years old. As the questionnaire was sent to the age group 65-85 year, the oldest category is only answered by those that are exactly 85 years old or at least defined 85 years old by SPAR, who sent the addresses.
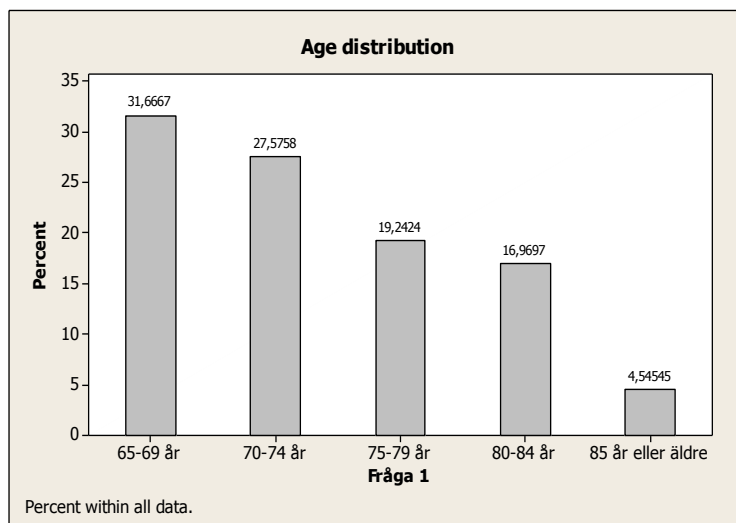
Figure 6.1 Age distribution of respondents (total number of answers 660)

The next question analysed here is how the age structure of the respondents is in relation to the actual age distribution in Gävle.[13] This is important in order to be able to see if there is an age-related bias in the answers. A chi square test is carried out using Minitab. Figure 6.2 shows the actual distribution of the observations compared to the expected distribution if the sample is representative to the population in Gävle. The test shows that the null hypothesis of the same distribution may be rejected. (The Chi-square tables are presented in appendix 5).
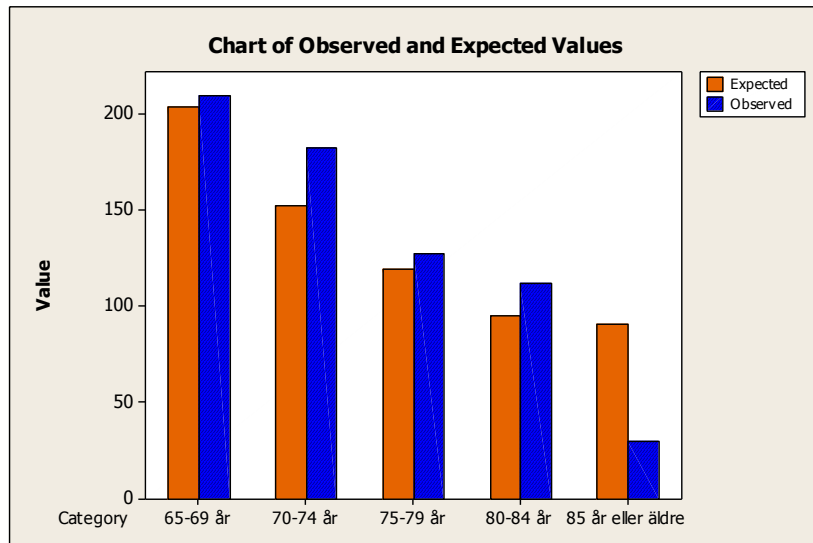
Figure 6.2 Observed age distributions in relation to population in Gävle

The test clearly shows that the largest distribution to the high chi square value is in the age group 85 and above, which should be expected as only a part of this group was included in the sample.

Removing the category "85 year and older" from the data and running a new chi square test change the result, and the null-hypothesis of the same distribution could not be rejected. Figure 6.3 shows this result.

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[13] The statistics are taken from Statistics in Sweden Statistiska Centralbyrån (SCB)
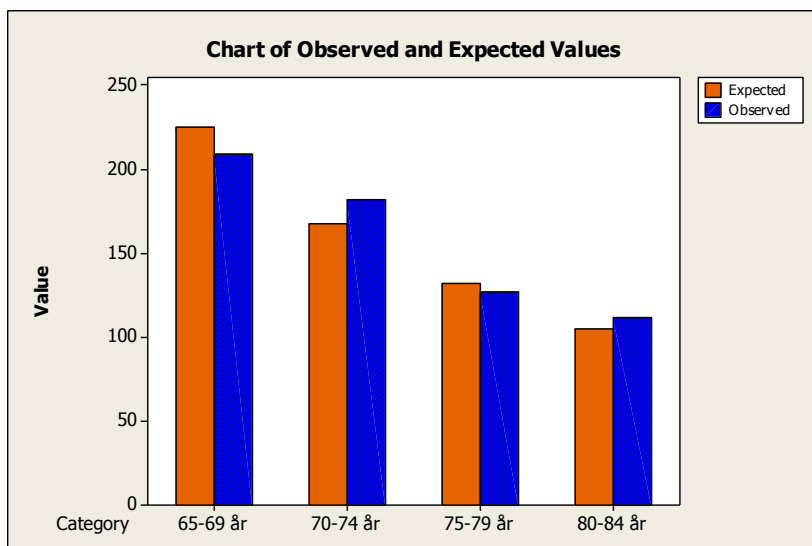
Figure 6.3 Observed age distributions in relation to population in Gävle without the group 85-

6.2 Household structure

Most people in the study (54 %) are living in pairs with two persons in the household, while about 44 % is living in single person households - see Figure 6.4.
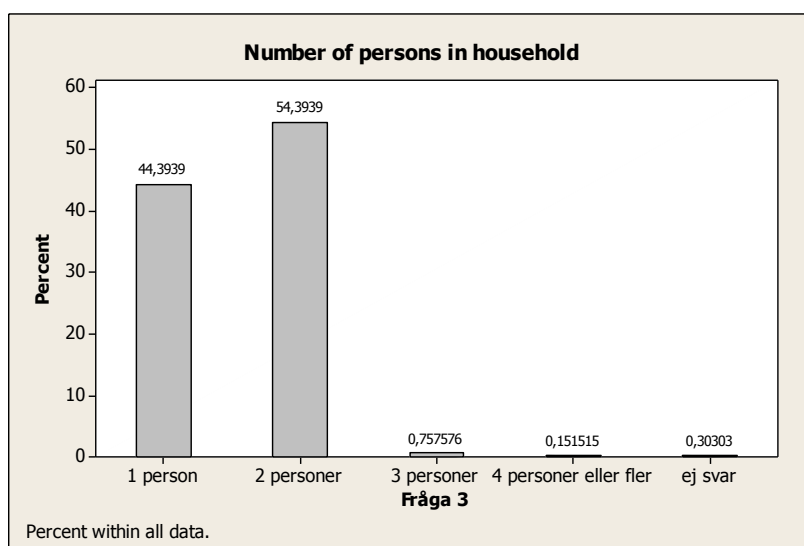
Figure 6.4 – Number of persons in household – answers in percentage

Figure 6.5 shows the relation between household size and age of the respondents and indicates that 2-person households are more common in the age groups below 75. This is in line with the results from chapter 5.
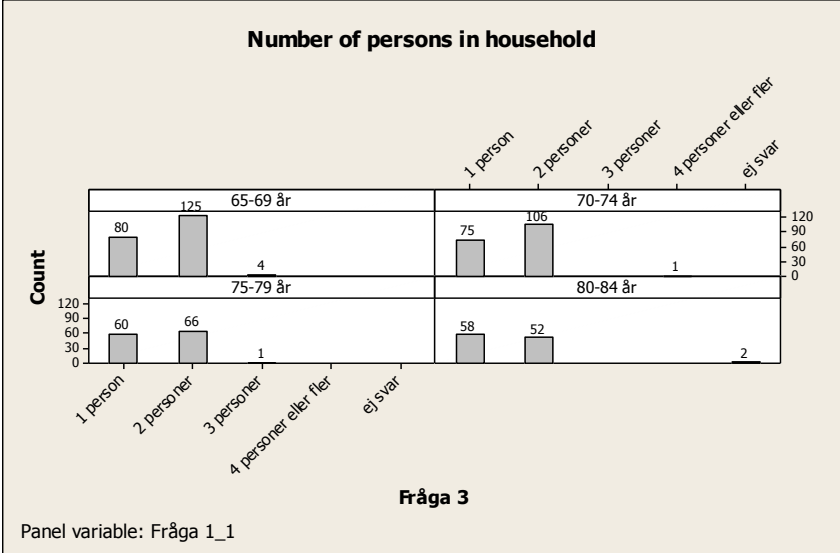
Figure 6.5 – Number of persons in household in relation to age

7 Current housing situation

7.1 Tenure form

In Gävle the distribution of different tenure forms is about 45 % rented apartments, 20 % condominiums and 35 % owned houses but this statistic is for Gävle as a whole and the statistics also somewhat differs between different parts of Gävle.[14]

The answers to the questionnaire show a relatively even distribution between the different types of living (see Figure 7.1 and 7.2). About 30 % is living in either rented living (hyresrätt) or in owned house (ägt småhus). The rest - about 40 % - is living in condominium (bostadsrätt).

Because this material only shows statistic for the age group 65-85 year and because it differ between different parts in Gävle the result seems reasonable. The 30 persons that are 85 years old tend to a higher degree to live in condominium than those that are younger – 50 % or 15 persons. The proportion living in owned houses decreases with age after the age of 75.
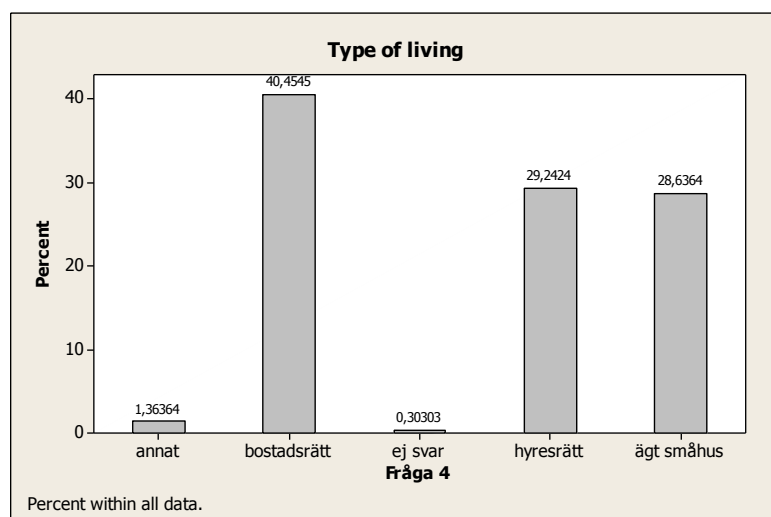
Figure 7.1 Tenure form

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[14] Fakta om Gävle Kommun
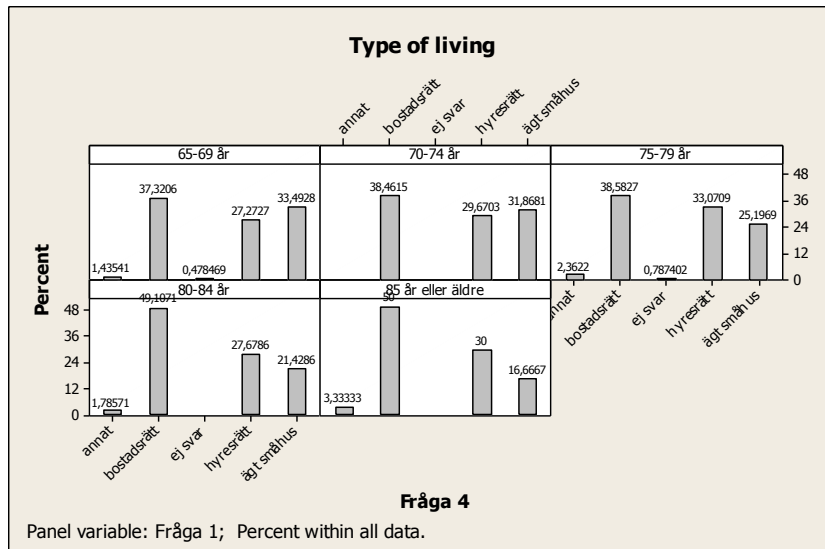
Type of living

Figure 7.2 Tenure form in different age groups

7.2 Apartment size and estimated area per person

Figure 7.3 shows the different proportions of the respondents' size of living area/apartment size. As can be seen almost 40 % live in apartments with 4 or more rooms. How the proportion differ between age groups is shown in figure 7.4 and it can be noted that the proportion living in 5 rooms or more decreases with age, while the proportion living in 3-room apartments increase with age. Whether they are satisfied with the size of their apartment is analyzed in chapter 8.
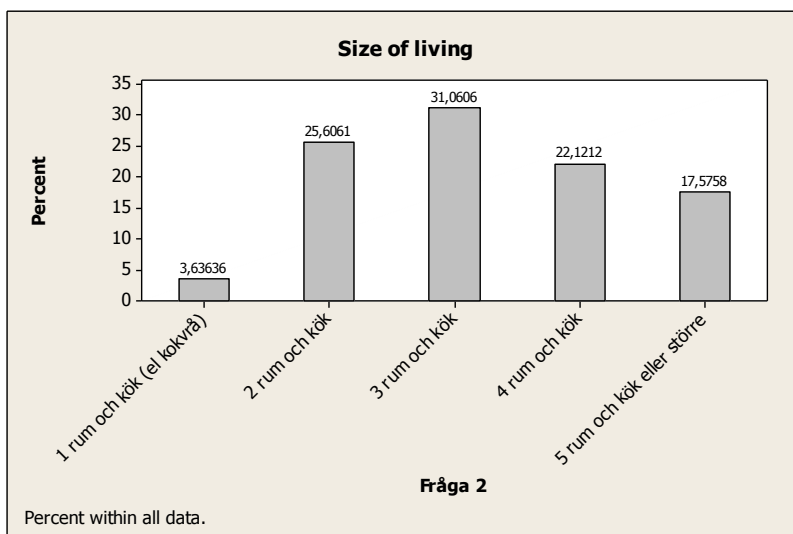
Size of living

Figure 7.3 Apartment size
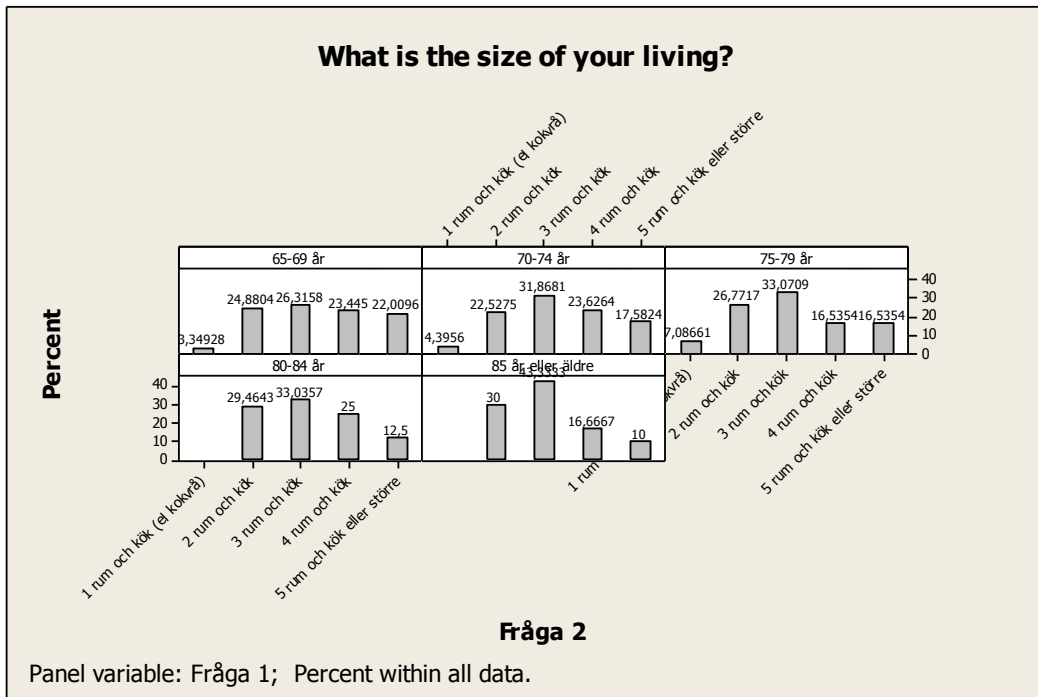
Figure 7.4 Apartment size in different age groups

To see if there are differences in type of living by different kinds of households the answers are related to type of living (see Table 7.1). In the table it can be seen that one person households often has two rooms and kitchen while most two person households have at least three rooms and kitchen. One answers was that 4 or more persons lived in one room and kitchen, but that must be seen as a mistake. As can be seen in the table more than 50 % of the 2-person households have 4 rooms or more and almost 50 % of the 1-person households live in 3 rooms or more.

The null hypothesis of even distribution between residents in the household is strongly rejected by chi square test on all levels (value 184,075).

Number in household/Size	1 r o k	2 r o k	3 r o k	4 r o k	5 r o k or more	Total
1 person	7,85 %	44,71 %	25,60 %	13,65 %	8,19 %	**100 %**
2 persons	0,00 %	10,31 %	35,93 %	28,41 %	25,35 %	**100 %**
3 persons	0,00 %	0,00 %	20,00 %	60,00 %	20,00 %	**100 %**
4 persons or more	100,00 %	0,00 %	0,00 %	0,00 %	0,00 %	**100 %**
No answer	0,00 %	50,00 %	0,00 %	50,00 %	0,00 %	**100 %**
Total	**3,64 %**	**25,61 %**	**31,06 %**	**22,12 %**	**17,58 %**	**100 %**

Table 7.1 Apartment size and household size

How much area does a person have as an average? To be able to answer this question total number of persons is counted in the household and later on assumptions are made about the area to be able to count area/persons in m^2.

The total number of persons was estimated as follows:

1 person = 1*293 (20)=   293 persons
2 persons = 2* 359 (10)=   718 persons
3 persons = 3*5   =   15 persons
4 persons = 4*1   =   4 persons

Total number of persons: 1 030 persons

No question was asked about the area of the apartment but a hypothetical calculation was made by assuming that kitchen and bathroom together is about 20 m^2, and that 1 unit of room (one room) is about 15 m^2. The total area may be estimated as the number of apartment with different sizes is known. These numbers are then used to estimate the average area per household and per person (see below).

Type of living Total area by type of living

1 r o k: 24 households 24*(20 + 1*15) = 24*35 m2 =   840 m2
2 r o k: 169 households169*(20 + 2*15) = 169*50 m2=   8 450 m2
3 r o k: 205 households205*(20 + 3*15) = 205*65 m2 = 13 325 m2
4 r o k: 146 households146*(20 + 4*15) = 146*80 m2 = 11 680 m2
5 r o k: 116 households116*(20 + 5*15) = 116*95 m2 = 11 020 m2

Total area:660 households   45 315 m2

The area per household and per person can now be calculated:

With the help of these numbers the average household's area has been estimated and the result is 69 m^2 per household (45 315 m^2/660 households).

When counted per person instead we see that total area/total number of persons
= 45 315 m^2/1 040 persons ≈ 44 m^2 per person.

This means that every person in the material has an estimated living area of about 44 m^2. The true area is probably even higher as the apartment sizes above seem rather small, especially for the apartments with many rooms.

7.3 Length of stay

Another part of the current housing situation that may be important is length of stay. The answers to question 5 in the questionnaire may therefore be of importance. The result is presented in Figure 7.5.
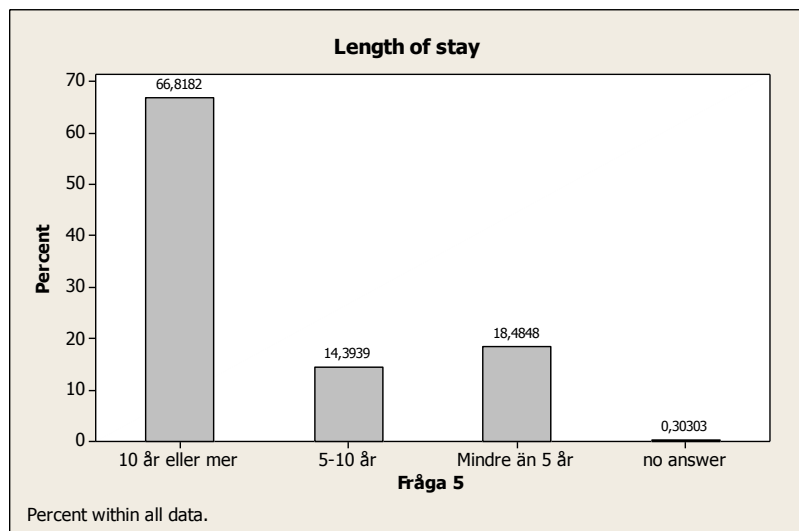
Figure 7.5 Length of stay

The majority of the persons in the study – two thirds - have lived in their home more than 10 years. By the received extra comments it can be seen that some of them have lived as long as 40 years in the same house. About 15 percent has lived between 5 and 10 years and about 18 percent has lived less than 5 years in their home.

Does it matter what age category they belong to? From chapter 6 the conclusion is drawn that the age category 85 year and older are not representative in the material. Relating length of stay to age shows a chi square value of 20,110, which just reject the hypothesis of the same distributions among age categories at 10 % level. Figure 7.6 shows length of stay in different age categories. The age distributions are similar but the age category 85 years old differs in that fewer have lived 5-10 years in their home. In the age category 80-84 years old fewer has lived less than 5 years in their home.
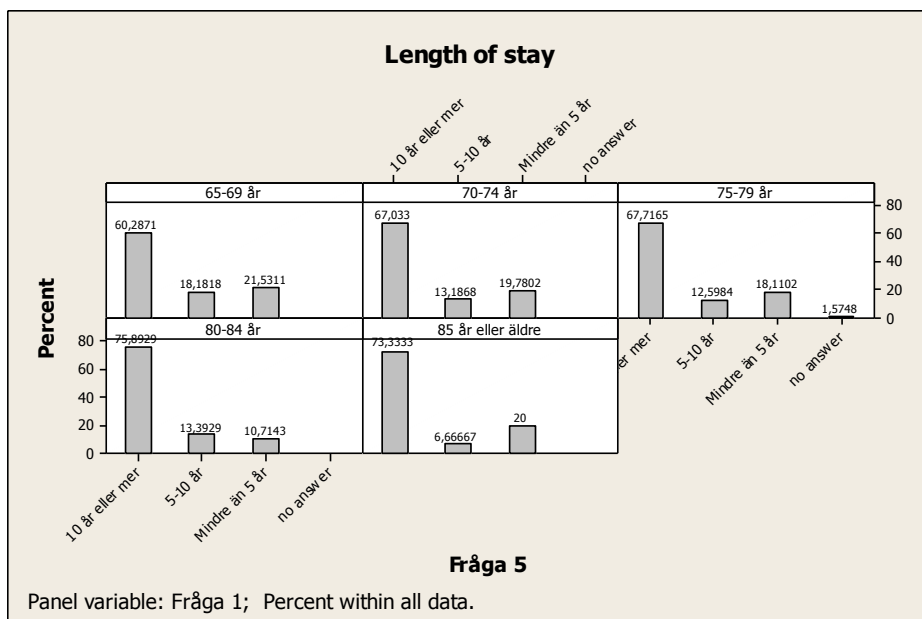
Figure 7.6 Length of stay in different age groups

Relating length of stay to type of dwelling gives a very high chi square value (260,642) and when the no answer – categories is removed it is still as high as 93,344. The null hypothesis of the same distribution is therefore rejected at all levels. The result is seen at table 7.2 below. From the table it can be seen that as many as 90 % of those living in an owned house has lived more than 10 years in their home while those who have lived less than 5 years in their current apartment often lives in a rented apartment. Those who have lived 5-10 years in their homes either live in a condominium or a rented apartment.

Type of living/Length of stay	10 years or more	5-10 years	Less than 5 years	Total
Condominium	64,04 %	19,10 %	16,85 %	**100 %**
Rented apartment	47,15 %	19,69 %	33,16 %	**100 %**
Owned house	90,96 %	3,19 %	5,85 %	**100 %**
Else	88,89 %	0,00 %	11,11 %	**100 %**
Total	**67,12 %**	**14,46 %**	**18,42 %**	**100 %**

Table 7.2 Length of stay and tenure form

8. Search cost and uncertainty

In this chapter a number of aspects related to search cost and uncertainty are treated. First results concerning the satisfaction with the current housing situation are presented (8.1). If the respondents are very satisfied with their current situation it is unlikely that high transaction cost "forces" them to stay. That many households have been thinking of moving may on the other hand indicate that transaction costs are important (8.2). Poor knowledge of the alternatives can be seen as a transaction cost (8.3), as well as strong preferences for staying in the same area (8.4). A more direct obstacle for moving is if the social authorities think that a person is too well to move into a nursing home (8.5) or if a person is not being able to find a suitable apartment (8.6). All these aspects may be seen as an indirect estimation of the search cost and the cost of uncertainty mentioned by Quigley (2002).

8.1 Satisfaction with the current housing situation

In chapter 7 the respondents' current housing situation was analysed, but the question remains how satisfied the respondents are by their current situation? The answer to this can be seen from the answer from question 6 in the questionnaire (see figure 8.1). Most of the persons answering the questionnaire – about 80 % - are content with the size of their living area.
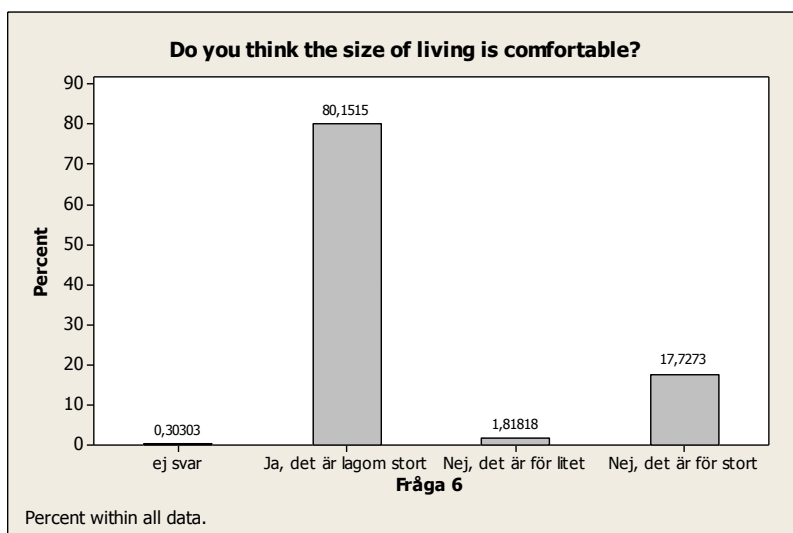
Figure 8.1 How content the respondents are with the size of the apartment

The results are somewhat different when relating to the respondents age (see table 8.1) The apartment is to a larger extent considered too big when reaching the age of 85 year or older, as almost one third thinks that their apartment is too big. In a chi square test with the null hypothesis of even distribution in age categories, this hypothesis is however not rejected at 10 % level. This result is probably a combination of smaller households when the age increases (see chapter 6) and that the persons thinks that taking care of a large apartment is becoming too difficult. It is interesting to observe that there is almost no change before the age of 85.

Age/Content	Yes, I am content	No, the size of living is to big	No, the size of living is to small	Total by age
65-69 year	80,77 %	17,79 %	1,44 %	100 %
70-74 year	79,67 %	18,68 %	1,65 %	100 %
75-79 year	83,33 %	12,70 %	3,97 %	100 %
80-84 year	82,14 %	17,86 %	0,00 %	100 %
85 year or older	63,33 %	33,33 %	3,33 %	100 %
Total by content	80,40 %	17,78 %	1,82 %	100 %

Table 8.1 How content the respondents are in relation to age

A somewhat different picture is seen if relating the question concerning how content the persons are to the size of apartment (see table 8.2), as the null hypothesis of even distribution among categories is clearly rejected at all level (with a value of 186,677 with the no answer removed). Those who live in a one room apartment often want a bigger apartment if they want to move, as the present size of living is too small either by m^2 or number of rooms or both. Those that have a two room apartment or a three room apartment often are content. As much as 96 % of those who have a two room apartment that is content. A larger size of living area seems to be too big, especially for those who live alone.

Size/Content	Yes, I am content	No, the size of living is to big	No, the size of living is to small	Total by age
1 r o k	75,00 %	4,17 %	20,83 %	**100 %**
2 r o k	96,45 %	0,59 %	2,96 %	**100 %**
3 r o k	91,18 %	7,84 %	0,98 %	**100 %**
4 r o k	69,18 %	30,82 %	0,00 %	**100 %**
5 r o k or more	53,04 %	46,96 %	0,00 %	**100 %**
Total	**80,15 %**	**17,78 %**	**1,82 %**	**100 %**

Table 8.2 How content the respondents are in relation to size of apartment

8.2 Plans to move

If not satisfied with the current situation, the respondents maybe have been thinking of moving? This is also question 8 in the questionnaire, and here the answers are used to indirectly look at the satisfaction of the current housing situation (see figure 8.2).
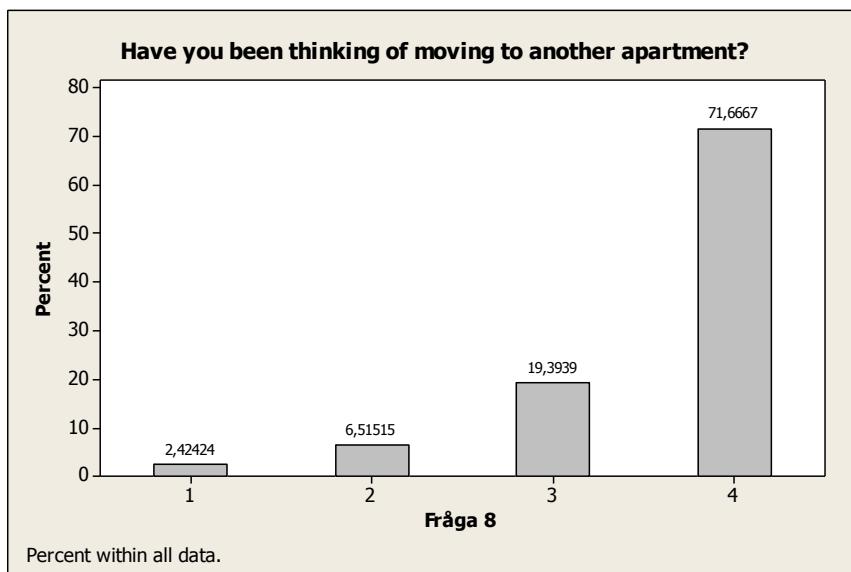
1 = No answer
2 = Yes, I have been thinking of moving to a similar or bigger apartment
3 = Yes, I have been thinking of moving to a smaller apartment
4 = No

Figure 8.2 Plans to move

About 72 percent have answered that they have not been thinking of moving, but about 20 percent have been thinking of moving to a smaller apartment – so called downsizing. A smaller percentage – 6,5 % - has been thinking of moving to a similar or bigger apartment.

The persons have been grouped according to age, because different age categories may have different opinions about moving (figure 8.3), but the chi-square-tests shows low values which means that the hypothesis of similar pattern cannot be rejected. However the chi square value without the group of 85 year old persons is half of the value when this group is counted. Those who are most positive towards moving to a smaller apartment seems to be in the age group 70-74 year, while those who want to move to a similar or bigger apartment more often are in the age group 65-69 year, if they want to move at all. If the person is 80 year or above, he or she may be too sick to move or are considering moving to a nursing home, but if they want to move, it is to a smaller apartment – especially after the age of 85 where no one has given answer number 2 (moving to a similar or bigger apartment).
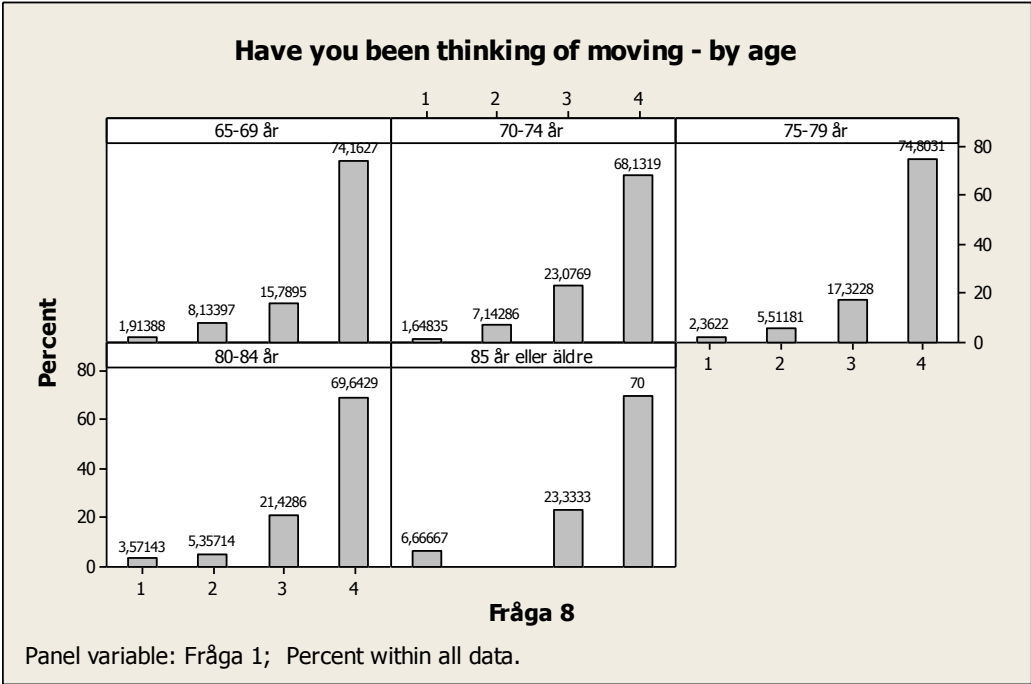
Figure 8.3 Plans to move, by age

Definitions – see Figure 8.1

From the received comments, it may be seen that those who are feeling well do not want to move at all. They are quite attached to their home. The pull factors seem to be stronger than the push factors, except for specific groups where the push factors are stronger.

The next question was: If you have been planning to move – to what kind of living do you want to move? The answer to that question is presented in Figure 8.4.

If you have been thinking of moving, what kind of living do you prefer?

Fråga 9	Percent
1	45,303
2	11,6667
3	12,1212
4	1,9697
5	23,9394
6	4,24242
7	0,757576

Percent within all data.
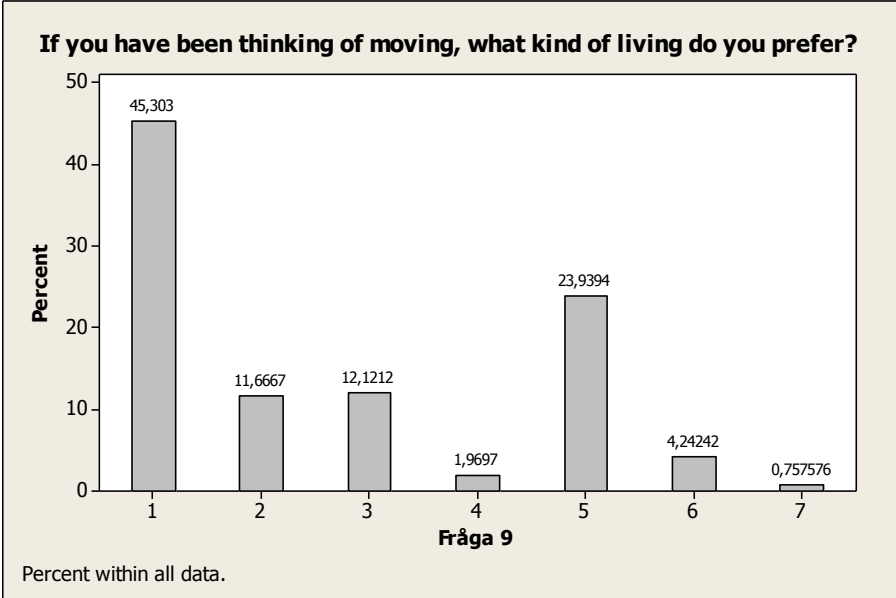
1 = No answer/ No answer at question 8
2 = I would like to move to an ordinary condominium
3 = I would like to move to an ordinary rented apartment
4 = I would like to move to an owned house
5 = I would like to move to a senior living
6 = I would like to move to a secure living
7 = I am queuing to move to a secure living

Figure 8.4 Plans to move, by age

This question was meant to be answered only by those who answered "Yes" to the question if they are planning to move. Many have however interpreted the question as "If I will move – what would I choose?", so some who have answered No on the earlier question still have answered this question. Apart from the No answer/No on the earlier question, most people would choose a senior living – about 24 %.

According to SOU 2008:13 the policy for the future is that this kind of apartments will have a common area where activities can take place, personnel and alarm if something happens, possibility to eat and have a cup of coffee with friends. Senior living is otherwise an overall name for all apartments within the ordinary housing stock for elderly but active people who want a quieter environment. In this case the target group is 55 years and above, but as can be seen from the questionnaire typically older groups are of interest (see chapter 3).

Relating the answers to different age groups the following result was found (see table 8.4). (Due to technical difficulties it is not possible to remove the column No answer/No while testing)

Age/Kind of living	Condo-minium	Rental	Owned house	Senior living	Nursing home	I am queuing for nursing home	No answer / No at question 8	Total
65-69 year	18,18 %	10,53 %	4,78 %	19,62 %	0,48 %	0,48 %	45,93 %	**100,00 %**
70-74 year	13,19 %	15,93 %	1,10 %	21,98 %	1,65 %	1,10 %	45,05 %	**100,00 %**
75-79 year	5,51 %	13,39 %	0,00 %	33,07 %	8,66 %	0,00 %	39,37 %	**100,00 %**
80-84 year	6,25 %	8,04 %	0,89 %	24,11 %	10,71 %	1,79 %	48,21 %	**100,00 %**
85 year or older	3,33 %	10,00 %	0,00 %	26,67 %	3,33 %	0,00 %	56,67 %	**100,00 %**
Total	**11,67 %**	**12,12 %**	**1,97 %**	**23,94 %**	**4,24 %**	**0,76 %**	**45,30 %**	**100,00 %**

Table 8.3 Where do you want to move, by age?

Senior living is a common answer from all age categories, but the highest percentage (33, 07 %) is noted in the category 75-79 year. A chi square test rejects the hypothesis of even distribution among age categories at all levels (with a value of 72,583). The hypothesis is rejected also without the 85 year old group, with only slightly lower chi square value.

Table 8.3 shows that a majority - 27 % in the age category 85 year or older, wants to move into senior living. Most of the rest – 10 % of the total – wants to move to rental living within the ordinary housing sector. In the age category 80-84 year 11 % wants to move into nursing home. This may be the group that has applied for nursing home, but has been considered to healthy. There is also as much as 9 % that is in the age category 75-79 year that want to move into the nursing home, but in age groups younger than that people want to live in apartments within the ordinary housing sector.

8.3 Knowledge of the alternatives

The question whether you are satisfied or not with your current situation are easier to answer if you are well aware of the alternatives. In the questionnaire question 10 consisted of a number of statements 10a-10l and the respondents were asked to choose one of the following answers:

I totally agree
I partly agree
I do not agree at all
I have no opinion
(otherwise No answer)

In this chapter the answers to question/statement 10a, 10c, 10h, 10i and 10j are used as they cast light on search cost and uncertainty in a broad sense. The first question (10a) concerns knowledge of the current supply.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
14,70 %	28,48 %	25,91 %	25,61 %	5,30 %	100 %

Table 8.4 Response to question: "I am aware of the supply of senior living/nursing home"

Table 8.4 shows that about a third partly agreed to the statement and 15 % totally agreed, but this was maybe a difficult statement to respond to as the fraction "no opinion" is high. Some of the respondents commented that they would like to have more information sent out to them of the different alternatives, when getting older, something that strengthen this conclusion.

The result from relating the answers to age is presented in Table 8.5 below. Pearson's chi – square is only high enough for rejection with the no answer included. The hypothesis is therefore not rejected at the 10 % level.

Age/10a	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	16,02 %	32,52 %	28,64 %	22,82 %	**100 %**
70-74 year	15,82 %	32,77 %	28,25 %	23,16 %	**100 %**
75-79 year	13,91 %	29,57 %	25,22 %	31,30 %	**100 %**
80-84 year	13,59 %	24,27 %	26,21 %	35,92 %	**100 %**
85 years and older	25,00 %	16,67 %	25,00 %	33,33 %	**100 %**
Total	**15,52 %**	**30,08 %**	**27,36 %**	**27,04 %**	**100 %**

Table 8.5 Response to question: "I am aware of the supply of senior living/nursing home" in different age groups

For the group 65-69 year about a third partly agree but almost as many do not agree at all and it is the same frequency for the group 70-74 year. A high percentage has also no opinion or did not answer at all, especially for the older age groups, which indicate that it is a difficult question. The highest proportion of the answer "totally agree" was in the oldest age group.

If knowledge is related to type of dwelling then a null hypothesis of the same distribution in all categories is rejected at 5 % level (with a chi-square value of 19,163), see table 8.6. Those who live in an owned house tend not to agree to the statement and those living in a rented apartment tend to agree to a higher extent. One might speculate that moving from an owned house is such a big step that the household does not investigate the alternative until it is necessary.

Type of dwelling/10a	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	15,20 %	30,80 %	26,40 %	27,60 %	**100 %**
Rented apartment	20,44 %	28,73 %	19,34 %	31,49 %	**100 %**
Owned house	10,87 %	30,98 %	36,41 %	21,74 %	**100 %**
Else	12,50 %	25,00 %	37,50 %	25,00 %	**100 %**
Total	**15,41 %**	**30,18 %**	**27,45 %**	**26,97 %**	**100 %**

Table 8.6 Response to question: "I am aware of the supply of senior living/nursing home" for different types of dwelling

8.4 Preferences for the same area

The second statement that is used to give information about the households´ housing situation concerned where they wanted to live after an eventual move (10c). As these preferences may narrow the options to move, they are interesting from a transaction cost perspective. The results are presented in table 8.7.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
38,94 %	22,73 %	15,76 %	17,58 %	5,00 %	100 %

Table 8.7 Response to question: "I want to live within the same area, even if I move"

Almost 40 % totally agreed that they wanted to live in the same area even if they move, and 23 % partly agree. As many respondents have been living in their dwellings for more than 10 years this is understandable. To move to a new area may imply high transaction costs in getting a new social network. However in a chi-square test the null hypothesis of the same distribution over length of stay may not be rejected at 10 percent level (Chi square value of 15,575 with 12 degrees of freedom).

The next step was to look at preferences among different age categories (see table 8.7).

Removing the no answer gives a Chi-square value of 38,452 and the null hypothesis of the same distribution is rejected at all levels (without the 85 year group the chi square value is slightly lower– that is the hypothesis is still rejected). Looking at the whole group, 60 % either totally agree or partly agree. In the age group 80-84 year as well as 85 year and older as many as around 55-56 % totally agrees with the statement that they want to live in the same area, even though the group partly agrees is smaller (see table 8.8). This is clearly an easier statement to respond to than statement 10a as the no opinion category is smaller.

10c/Age	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	30,10 %	29,61 %	21,36 %	18,93 %	**100 %**
70-74 year	41,81 %	23,16 %	21,47 %	13,56 %	**100 %**
75-79 year	43,59 %	25,64 %	8,55 %	22,22 %	**100 %**
80-84 year	54,81 %	14,42 %	8,65 %	22,12 %	**100 %**
85 years and older	56,52 %	13,04 %	13,04 %	17,39 %	**100 %**
Total	**40,99 %**	**23,92 %**	**16,59 %**	**18,50 %**	**100 %**

Table 8.8 Response to question:"I want to live within the same area, even if I move" by age groups

One can speculate that the high preference among the groups with higher age counteracts the increased need to move to another apartment and contributes to the tendency to stay in the current apartment (a pull factor), as the possible supply falls if only apartments in the same area are of interest.

A factor that also might matter is the type of dwelling that the households lives in and this also turned out to be the case with a chi square value as high as 40,982 when the no answer is removed (see table 8.9). As may be seen in the table those who live in rented apartment agree most and those who live in condominium have a large share that at least partly agrees. It is those that live in an owned house that mostly answer "do not agree at all". This should not be surprising as they realize that they need to move to an apartment and those might not be available in the area where their owned home is located.

10c/Type of living	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	42,40 %	28,80 %	12,80 %	16,00 %	**100 %**
Rented apartment	51,65 %	17,03 %	10,44 %	20,88 %	**100 %**
Owned house	28,65 %	23,78 %	28,11 %	19,46 %	**100 %**
Else	44,44 %	22,22 %	11,11 %	22,22 %	**100 %**
Total	**41,05 %**	**23,80 %**	**16,61 %**	**18,53 %**	**100 %**

Table 8.9 Response to question:"I want to live within the same area, even if I move" by age groups

Relating instead the responses to length of stay the hypothesis of the same distribution may not be rejected (and the result is therefore not shown).

8.5 Not "sick enough" for moving

Also the statement: "I feel lonely and want to move to a nursing home, but am considered too healthy" (10h) is used to test the hypothesis of something preventing the elderly from moving. Almost 60 percent did not agree to this statement. As many as a third has no opinion which is a high number on such a specific statement. Only 3% totally agree and less than 4% agree partly agree (see table 8.10).

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
3,18 %	3,64 %	57,58 %	31,67 %	3,94 %	100 %

Table 8.10 Response to question: "I feel alone and would like to move to a nursing home, but am considered too healthy"

Relating to age the null hypothesis of the same distribution among different age categories is rejected at all levels (about 40 both with and without the 85 year old group, removing the no answer). The answer totally agree is increasing with age and the answer do not agree at all is decreasing with age. The answer partly agrees is first increasing with age and then decreasing with age (see table 8.11). Also the No opinion answers are increasing with age - is it hard to determine if you are "too healthy" or not as age increases?

10h/Age	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	0,97 %	0,48 %	71,98 %	26,57 %	**100 %**
70-74 year	3,95 %	2,26 %	63,28 %	30,51 %	**100 %**
75-79 year	4,20 %	8,40 %	50,42 %	36,97 %	**100 %**
80-84 year	4,76 %	7,62 %	45,71 %	41,90 %	**100 %**
85 years or older	7,69 %	3,85 %	42,31 %	46,15 %	**100 %**
Total	**3,31 %**	**3,79 %**	**59,94 %**	**32,97 %**	**100 %**

Table 8.11 Response to question: "I feel alone and would like to move to a nursing home, but am considered too healthy" in different age groups

Relating the statements to type of living the hypothesis of similar distribution may be rejected at all levels, removing the no answer. It can be seen in table 8.12 that it is those living in an owned house that mostly do not agree. Those living in a condominium are less certain even if the tendency is the same, while those living in a rented apartment to a very high extent have no opinion. Only a small percentage have answered totally agree or partly agree. Most of those are living in a rented apartment. One can speculate that as it is easier for renters to move they may feel blocked by the social authorities more often.

Type of living/10h	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	2,38 %	1,98 %	61,51 %	34,13 %	100 %
Rented apartment	4,81 %	6,42 %	45,99 %	42,78 %	100 %
Owned house	3,26 %	3,26 %	71,74 %	21,74 %	100 %
Else	0,00 %	11,11 %	66,67 %	22,22 %	100 %
Total	3,32 %	3,80 %	59,97 %	32,91 %	100 %

Table 8.12 Response to question: "I feel alone and would like to move to a nursing home, but am considered too healthy" in different types of living

8.6 Difficulties in finding the right dwelling

Important when looking at alternatives is not only the knowledge of different kinds of living but also if one really is able to find a suitable object. The answers to statement 10i are used to analyse this (see table 8.13). Almost 40 percent do not agree at all to this statement, but about a third has no opinion.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
10,45 %	14,85 %	38,64 %	30,76 %	5,30 %	100 %

Table 8.13 Response to question:"I would like to move, but has difficulties in finding a dwelling with the right properties, for example location and design"

A chi square test rejects the null hypothesis of the same distribution among age categories both with and without the category "no answer" included, and with and without the 85 year old category on at least 1 % level. Table 8.14 shows all age categories but with the no answer excluded. The category "do not agree at all" decreases as age increases and instead all other categories are increasing with age.

Age/10i	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	6,31 %	14,56 %	50,49 %	28,64 %	**100 %**
70-74 year	10,29 %	19,43 %	41,71 %	28,57 %	**100 %**
75-79 year	13,04 %	15,65 %	33,04 %	38,26 %	**100 %**
80-84 year	18,45 %	11,65 %	32,04 %	37,86 %	**100 %**
85 years and older	15,38 %	15,38 %	26,92 %	42,31 %	**100 %**
Total	**11,04 %**	**15,68 %**	**40,80 %**	**32,48 %**	**100 %**

Table 8.14 Response to question:"I would like to move, but have difficulties in finding a dwelling with the right properties, for example location and design" related to age

The type of dwelling also seems to matter as the hypothesis of the same distribution is also rejected, but in this case at 0.5 % level. Although the categories totally agree and partly agree are similar for different groups those living in a rented apartment have a lower percentage in the category "do not agree at all" than the other groups and a higher degree in the category " No opinion" (see table 8.15).

Type of dwelling/10i	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	8,03 %	15,66 %	43,78 %	32,53 %	**100 %**
Rented apartment	13,66 %	13,66 %	28,96 %	43,72 %	**100 %**
Owned house	12,64 %	18,68 %	47,25 %	21,43 %	**100 %**
Else	11,11 %	0,00 %	66,67 %	22,22 %	**100 %**
Total	**11,08 %**	**15,73 %**	**40,77 %**	**32,42 %**	**100 %**

Table 8.15 Response to question:"I would like to move, but have difficulties in finding a dwelling with the right properties, for example location and design", related to type of living

Something that seems to matter even more than age and type of dwelling is if a person have been thinking of moving, that is the answer to question 8. Relating the answer to question number 8 gives an extremely high chi square value of around 180, even without the no answer, and the null hypothesis of the same distribution independent of if you are thinking of moving or not, is rejected. The results may be seen in Table 8.16. Those who have been thinking of moving are more inclined to agree to the statement, especially if you are thinking of moving to a smaller apartment. The result indicates that limited supply can be an important obstacle for moving.

Have you been thinking of moving/10i	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Yes I have been thinking of moving to a smaller apartment	27,87 %	40,16 %	15,57 %	16,39 %	**100 %**
Yes I have been thinking of moving to a similar or bigger apartment	30,23 %	27,91 %	20,93 %	20,93 %	**100 %**
No	4,48 %	7,85 %	50,00 %	37,67 %	**100 %**
Total	**10,97 %**	**15,71 %**	**41,08 %**	**32,24 %**	**100 %**

Table 8.16 Response to question:"I would like to move, but have difficulties in finding a dwelling with the right properties, for example location and design" related to thinking of moving or not

8.7 Preferences for garden

The last statement used to understand the respondents' view of their current housing and different alternatives are specifically related to the preference for having a garden (table 8.17). This is a statement only to those living in an owned house or condominium, because in those cases a garden might be seen as a pull factor. Of those who answered the question almost 35% agree, totally or partly, which is a relatively high number compared to other questions.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer/rented dwelling	Total
13,33 %	20,00 %	21,97 %	12,58 %	32,12 %	100 %

*Table 8.*17 *Response to question:"I don´t like to move because I have a garden that I like very much"*

Relating the answers to age gives a chi square value that just about rejects the null hypothesis of the same distribution for different age groups on 10 % level, without the "no answer"- category. As this level is not so reliable it is not shown here.

If instead relating the answer to type of living dramatically changes the distribution with a chi square value of over 500 (table 8.18). To remove the no answer in type of living makes no difference but to remove the no answer/rented apartment from statement 10j lowers the chi square value down to 88-89. For those living in an owned house more than 70 % either totally agree or partly agree.

Type of living/10j	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	13,03 %	21,01 %	42,86 %	23,11 %	**100 %**
Rented apartment	11,76 %	11,76 %	5,88 %	70,59 %	**100 %**
Owned house	27,96 %	41,94 %	22,04 %	8,06 %	**100 %**
Else	42,86 %	28,57 %	14,29 %	14,29 %	**100 %**
Total	**19,64 %**	**29,46 %**	**32,37 %**	**18,53 %**	**100 %**

*Table 8.*18 *Response to question: "I don´t like to move because I have a garden that I like very much" related to type of living*

9. Administrative and financial costs

This chapter concerns administrative costs but also financial aspects and cost of living, because something that is important if you are thinking of moving or not is your financial situation[15]. By looking at the answers to question 7 and also the statement 10b, 10d 10k and 10l in the questionnaire these aspects can be evaluated.

9.1 Current financial situation

If the household's current economic situation is bad they may be forced to move to something cheaper. As can be seen I Figure 9.1 over 50 % think that their economic situations is good and almost 40 % that it is "neither good nor bad". Only 7% think that their economic situation is bad.
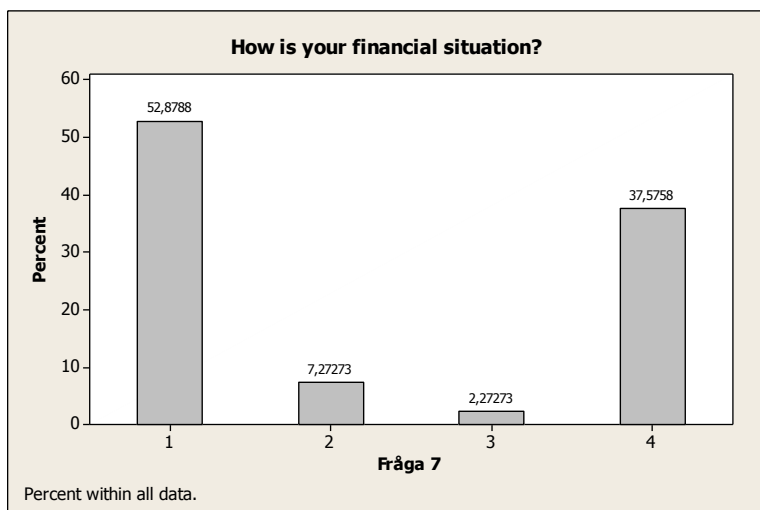
1 = Good
2 = Bad
3 = No answer
4 = Neither good nor bad

Figure 9.1 Answers to the question "How is your financial situation?"

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[15] This aspect is discussed also in Kulander & Lind, (2008)

As it seems, when looking at different age categories, no one at the age of 85 year has answered that their situation is bad (see figure 9.2), but a higher percentage have answered neither good or bad. The differences are however small – the chi square value is around 3 with 6 degrees of freedom without the 85 year old category and around 5,5 with 8 degrees of freedom with the 85 year old category is included.
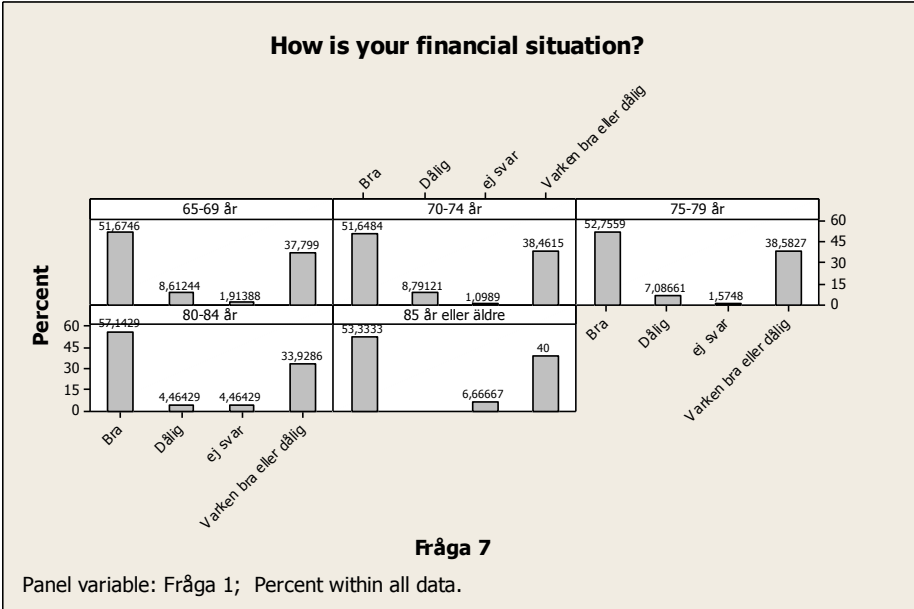
Figure 9.2 Answers to the question "How is your financial situation?" related to different age categories

9.2 Knowledge about costs

To evaluate how a move will affect the financial situation one need to know the cost of living in available alternatives, e.g. senior living or nursing home (10b). The statistics of the knowledge are presented in Table 9.1.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
15,61 %	17,27 %	32,27 %	30,15 %	4,70 %	100 %

Table 9.1 Answers to the question "I am aware of the cost of moving to a senior living/nursing home"

Most of the respondents did not know what the cost of moving to a senior living/nursing home is – as many as about a third did not agree at all to the statement and almost as many had no opinion.

The statistics of different age groups are presented in Table 9.2. Pearson's chi-square test showed that there were significant differences between the age groups (chi-square value 47,855). For the two youngest groups most people answer "do not agree at all", while the no opinion-answers have increased in the two following groups, especially for the age category 80-84 year. In the group 85 year or older there is an increase in the answer "totally agree". The proportion that totally agrees is also relatively high in the age-group 70-74.

Removing the "no answer" category the value is however only about 20-22 depending on if the 85 year old category is counted, but the hypothesis is still rejected at 2,5 % level, and this result is shown in 9.2 below.

Age/10b	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	13,11 %	18,93 %	41,75 %	26,21 %	**100 %**
70-74 year	21,23 %	17,32 %	32,96 %	28,49 %	**100 %**
75-79 year	14,66 %	23,28 %	25,86 %	36,21 %	**100 %**
80-84 year	14,56 %	12,62 %	31,07 %	41,75 %	**100 %**
85 years or older	24,00 %	16,00 %	24,00 %	36,00 %	**100 %**
Total	**16,38 %**	**18,12 %**	**33,86 %**	**31,64 %**	**100 %**

Table 9.2 Answers to the question "I am aware of the cost of moving to a senior living/nursing home" in different age groups.

9.3 Expenses too high after moving?

Even if the current financial situation is good, the household might be afraid that expenses will be too high if they move. The answers to the question about this are presented in Table 9.3 and it can be seen that many believe that expenses after moving will be too high. Around 25 % agree totally and almost as many partly agree. Only just over 20 % do not agree at all.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
25,61 %	23,33 %	21,97 %	24,39 %	4,70 %	100 %

Table 9.3 Answers to the question: "I still live in my dwelling because the monthly expenses will be too high if I move"

The result if the answers are related to age is presented in Table 9.4. The chi square value is as high as 51,765 but taken account of the "no answer" the value is about 30-35 and without the 85 year old category it is around 21. It can be seen that the youngest disagree most which is logical as they may have other reason for staying, but the share that think that monthly expenses will be too high is high already in the age group 70-74.

Age/10d	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	19,51 %	25,37 %	32,68 %	22,44 %	**100 %**
70-74 year	29,94 %	26,55 %	20,90 %	22,60 %	**100 %**
75-79 year	33,61 %	23,53 %	16,81 %	26,05 %	**100 %**
80-84 year	30,10 %	24,27 %	16,50 %	29,13 %	**100 %**
85 years or older	20,00 %	8,00 %	16,00 %	56,00 %	**100 %**
Total	**26,87 %**	**24,48 %**	**23,05 %**	**25,60 %**	**100 %**

Table 9.4 Answers to the question: "I still live in my dwelling because the monthly expenses will be too high if I move", related to age

Relating to type of living, the hypothesis of equal distribution is just about rejected at 5 % level without the "no answer" category. Table 9.5 shows that version below. Those living in an owned house often partly agree and there is a low number among the no opinion. There is a high number for rented apartment for no opinion but if they have an opinion they tend to agree or partly agree. For condominiums a quite high number have no opinion, but if they have an opinion it is split between totally agree and do not agree at all.

Type of living/10d	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	28,17 %	20,24 %	23,81 %	27,78 %	**100 %**
Rented apartment	26,52 %	23,20 %	18,78 %	31,49 %	**100 %**
Owned house	25,27 %	32,26 %	25,27 %	17,20 %	**100 %**
Else	33,33 %	11,11 %	33,33 %	22,22 %	**100 %**
Total	**26,91 %**	**24,52 %**	**22,93 %**	**25,64 %**	**100 %**

Table 9.5 Answers to the question: "I still live in my dwelling because the monthly expenses will be too high if I move", related to type of living

The explanation for the high share that think that monthly expenses will be too high after moving is probably the following. If the household lives in a condominium or a house they have probably bought at a rather low price and amortized the loans so their current monthly expenses are low. If they live in a rental apartment it is probably also rather old and the rent has been kept down by the rent regulation system. If they plan to move to a smaller rental apartment or to some form of elderly living it is probably to a newer apartment with considerably higher rent. The paradoxical situation can be that when they move to a smaller home they will have higher monthly expenses.

9.4 High taxes when moving?

Another statement – statement 10k – focus on taxes, which has been discussed a lot in the public debate where it has been argued that capital gains taxes are an important explanation for why people who own their house or apartment do not move. This is one of the statements that are supposed to be answered only by those that live in either condominium or an owned house (see table 9.6). It can be noted that those that do not agree are about twice as many as those that agree or partly agree.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer/rented dwelling	Total
5,00 %	8,94 %	29,55 %	23,03 %	33,48 %	100 %

Table 9.6 Answers to the question: "I still live in my house because it would be too high tax if I moved"

Testing first for differences in age categories gives a Chi square value (34,416) that rejects the null hypothesis of the same distribution of all levels and removing the no answer-category the value is still as high as 27-29, depending on if the 85 year category is counted, which still rejects the hypothesis at all levels. The result is shown in table 9.7, and it is difficult to see any clear patterns except that the youngest disagree most and the explanation is probably as above that they are staying for other reasons.

Age/10k	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	4,73 %	11,49 %	58,11 %	25,68 %	**100 %**
70-74 year	10,40 %	16,00 %	43,20 %	30,40 %	**100 %**
75-79 year	6,17 %	12,35 %	38,27 %	43,21 %	**100 %**
80-84 year	8,82 %	16,18 %	25,00 %	50,00 %	**100 %**
85 years and older	11,76 %	5,88 %	41,18 %	41,18 %	**100 %**
Total	**7,52 %**	**13,44 %**	**44,42 %**	**34,62 %**	**100 %**

Table 9.7 Answers to the question : "I still live in my house because it would be too high tax if I moved" in different age groups.

In Table 9.8 the answers related to different types of living are presented. As for statement 10j the chi square value for statement 10k is dramatically high, dividing into different categories of type of living (471,529), but when the no answer-category is removed the value becomes close to 40. This value is however still high enough to reject the hypothesis of even distribution at all levels. Those who own their house agree the most and around a third agrees totally or partly, but only just above 10% agree totally.

Type of living/10k	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	4,35 %	8,70 %	46,09 %	40,87 %	**100 %**
Rented apartment	6,25 %	6,25 %	12,50 %	75,00 %	**100 %**
Owned house	11,29 %	20,43 %	44,62 %	23,66 %	**100 %**
Else	14,29 %	0,00 %	57,14 %	28,57 %	**100 %**
Total	**7,52 %**	**13,44 %**	**44,42 %**	**34,62 %**	**100 %**

Table 9.8 Answers to the question : "I still live in my house because it would be too high tax if I moved" in different types of living.

9.5 Administrative costs

The last statement about administration and financial aspects and cost of living is statement 10l below. The question is whether it is difficult to move because there is too much administrative work consulting a real estate agent. The answers are presented in Table 9.9.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer/rented dwelling	Total
3,48 %	4,55 %	43,48 %	15,91 %	32,58 %	100 %

Table 9.9 Answers to the question: "I have been thinking of selling my house/apartment, but think it is too much work consulting a real estate agent"

According to table 9.9 most people of those who answered have no problem consulting a real estate agent. Relating the answers to age categories the null hypothesis of the same distribution for all age categories is rejected on all levels, with a chi square value of 39,771. The hypothesis is rejected also without the "no answer" category as well as without the 85 year old category, as the value is still above 32. There is a clear trend that the proportion that totally agrees with the statement increases with age (see table 9.10).

Age/10l	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	1,35 %	6,76 %	75,68 %	16,22 %	**100 %**
70-74 year	4,76 %	7,94 %	69,05 %	18,25 %	**100 %**
75-79 year	6,10 %	3,66 %	53,66 %	36,59 %	**100 %**
80-84 year	9,86 %	8,45 %	46,48 %	35,21 %	**100 %**
85 years and older	16,67 %	5,56 %	61,11 %	16,67 %	**100 %**
Total	**5,17 %**	**6,74 %**	**64,49 %**	**23,60 %**	**100 %**

Table 9.10 Answers to the question: "I have been thinking of selling my house/apartment, but think it is too much work consulting a real estate agent" in different age groups

Relating the answer to type of living there were small differences between condominiums and owned houses, see Table 9.11. Both categories tend not to agree. The chi square value is very high (469,195), even if it becomes lower when removing the no answer. As the value is as high as 35 without those categories the null hypothesis of the same distribution for all type of living is rejected at all levels. The result is shown in Table 9.11 below.

Type of living/10l	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	4,18 %	5,86 %	67,78 %	22,18 %	**100 %**
Owned house	6,49 %	8,65 %	64,86 %	20,00 %	**100 %**

Table 9.11 Answers to the question: "I have been thinking of selling my house/apartment, but think it is too much work consulting a real estate agent" in different types of living

10. Social aspects

This chapter concerns the social aspect with networks including the problem of getting rid of things when moving. Here the statements 10e, 10f and 10g are used.

10.1   Difficult to get help with moving

For the financial aspects the cost may be quantified in monetary terms, but various social aspects that are more difficult to measure can also be important. The first question concerns whether the person had relatives or friends that could help them with move (10e). The result is shown in Table 10.1.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
4,09 %	8,64 %	60,00 %	21,21 %	6,06 %	100 %

Table *10.1* Answers to the question *: " I would like to move, but a hindrance is that I have no relative or friend who can help me"*

As many as 60 percent answered that they did not agree at all and most people have someone – either a friend or a relative – that can help them.

The answer may depend on the age (when a person get older, friends and relatives tend to die according to e.g. the pilot study) - which is confirmed with a chi square test (56,334) that rejects the null hypothesis of even distribution at all levels. Removing the no answer category and considering the 85 year old category the value is still above 30 and the hypothesis is still rejected at all levels. The result is shown in Table 10.2 below.

Age/10e	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	1,48 %	6,90 %	72,91 %	18,72 %	**100 %**
70-74 year	2,82 %	7,34 %	69,49 %	20,34 %	**100 %**
75-79 year	7,96 %	9,73 %	53,98 %	28,32 %	**100 %**
80-84 year	8,74 %	15,53 %	50,49 %	25,24 %	**100 %**
85 years or older	4,17 %	12,50 %	50,00 %	33,33 %	**100 %**
Total	**4,35 %**	**9,19 %**	**63,87 %**	**22,58 %**	**100 %**

Table 10.2 Answers to the question: "I would like to move, but a hindrance is that I have no relative or friend who can help me" in different age groups.

It can be seen that the answers "partly agree" increases with age and that the answers "do not agree at all" decreases with age which confirms the conclusion above. For the group 85 years and older "no opinion" is as much as a third and instead the answers of "totally agree" and "partly agree" is a bit lower than expected. Those categories are instead highest in the age group 80-84 years old.

10.2 Hard to get rid of things

Another aspect that can be seen as a social transaction cost is that moving to something smaller means that the household need to get rid of some of their belongings (10f). In table 10.3 the respondents' views on this issue are presented. It can be noted that about 19 % partly agreed and 8 % totally agreed, while more than 50 % did not agree at all.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
8,18 %	19,09 %	52,27 %	14,70 %	5,45 %	100 %

Table 10.3 Answers to the question: "I still live in my dwelling because it is hard to get rid of a lot of things"

Relating the answer to different age groups it was found that the hypothesis of similar distribution is rejected at all levels with or without the "no answer" category or with or without the age category 85 year. Those who totally agree increase with age, while those who do not agree at all decrease with age (see table 10.4)

Age/10f	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	3,90 %	16,59 %	63,41 %	16,10 %	**100 %**
70-74 year	7,34 %	20,90 %	58,19 %	13,56 %	**100 %**
75-79 year	9,57 %	20,87 %	49,57 %	20,00 %	**100 %**
80-84 year	18,45 %	26,21 %	44,66 %	10,68 %	**100 %**
85 years or older	20,83 %	16,67 %	37,50 %	25,00 %	**100 %**
Total	**8,97 %**	**20,19 %**	**55,29 %**	**15,54 %**	**100 %**

Table 10.4 Answers to the question: "I still live in my dwelling because it is hard to get rid of a lot of things" in different age groups

Relating to length of stay instead gives a chi square value of at least 28, depending on the no answer category, and the hypothesis of similar distribution is rejected also here (see table 10.5). Those who totally agree have often lived in their home 10 years or more, but those who have lived in their home 5-10 years tend to partly agree. One can speculate that those who have moved rather recently already have got rid of a number of things.

Length of stay/10f	Totally agree	Partly agree	Do not agree at all	No opinion	Total
10 year or more	12,11 %	22,57 %	50,59 %	14,73 %	100 %
5-10 year	2,27 %	21,59 %	61,36 %	14,77 %	100 %
Less than 5 year	2,65 %	9,73 %	69,03 %	18,58 %	100 %
Total	9,00 %	20,10 %	55,47 %	15,43 %	100 %

Table 10.5 Answers to the question: "I still live in my dwelling because it is hard to get rid of a lot of things" related to length of stay.

Also when relating to type of living the hypothesis of the same distribution can be rejected at all levels (see table 10.6). Most people do not agree but those who agree – partly or totally – tend to live in an owned house.

Type of living/10f	Totally agree	Partly agree	Do not agree at all	No opinion	Total
Condominium	8,40 %	17,20 %	60,80 %	13,60 %	100 %
Rented apartment	6,63 %	18,23 %	51,38 %	23,76 %	100 %
Owned house	11,96 %	26,63 %	51,09 %	10,33 %	100 %
Else	12,50 %	0,00 %	75,00 %	12,50 %	100 %
Total	8,99 %	20,06 %	55,38 %	15,57 %	100 %

Table 10.6 Answers to the question: "I still live in my dwelling because it is hard to get rid of a lot of things" related to type of living

10.3 Afraid of losing friends if moving

The remaining question concerned a social transaction cost in the form of a fear of losing friends if the household moves (10g). The answers are presented in Table 10.7 and it can be seen that a clear majority do not agree at all. About 10 percent partly agree and only 4% agree totally.

Totally agree	Partly agree	Do not agree at all	No opinion	No answer	Total
3,94 %	10,15 %	62,73 %	18,03 %	5,15 %	100 %

Table 10.7 Answers to the question: "*I am afraid of losing my friends if I move*"

Table 10.8 shows the result related to age categories. The chi square value is around 21-22 without the "no answer" category which almost rejects the hypothesis of no difference at 1 % level. As noted in table 10.8 most age groups do not agree at all to the statement, but the trend is decreasing with age. The answer totally agree is slightly increasing as is also partly agree, but for the oldest group. Instead more people have no opinion in the group 85 years and older.

Age/10g	Totally agree	Partly agree	Do not agree at all	No opinion	Total
65-69 year	2,44 %	5,85 %	74,63 %	17,07 %	**100 %**
70-74 year	3,95 %	12,43 %	70,06 %	13,56 %	**100 %**
75-79 year	4,35 %	13,04 %	60,00 %	22,61 %	**100 %**
80-84 year	6,73 %	15,38 %	53,85 %	24,04 %	**100 %**
85 years and older	8,00 %	8,00 %	48,00 %	36,00 %	**100 %**
Total	**4,15 %**	**10,70 %**	**66,13 %**	**19,01 %**	**100 %**

Table 10.8 Answers to the question::"I am afraid of losing my friends if I move" in different age groups

One factor that can be important in this context is the size of the household. Testing for that factor shows that the hypothesis of even distribution is rejected at least at 1 % level, and that most people that answers that they totally agree to the statement are 1-person households (see Table 10.9).

Persons in household/10g	Totally agree	Partly agree	Do not agree at all	No opinion	Total
1 person	6,67 %	12,22 %	58,52 %	22,59 %	**100 %**
2 persons	2,29 %	9,74 %	72,49 %	15,47 %	**100 %**
3 persons	0,00 %	0,00 %	40,00 %	60,00 %	**100 %**
4 or more persons	0,00 %	0,00 %	0,00 %	100,00 %	**100 %**
Total	**4,16 %**	**10,72 %**	**66,08 %**	**19,04 %**	**100 %**

Table 10.9 Answers to the question:"I am afraid of losing my friends if I move" in different household sizes

11. Analysis and policy implications

Chapter 11 is divided into two parts – the first part consist of 11.1 that discusses the test of hypothesis and 11.2 that evaluate the results from the perspective of different age groups whereas the second part consist of 11.3 that discusses policy implications.

11.1 Test of hypothesis

The three main hypotheses (also mentioned in chapter 3.3) can be summarized as:

Related to search cost and uncertainty: Are the elderly well informed about alternatives on the housing market? The answer to this question is discussed in chapter 11.1.1.

Related to administrative and financial aspects: Do the elderly stay longer in their apartments because of e.g. transaction taxes and other direct expenses related to moving? The answers to these questions are discussed in chapter 11.1.2.

Related to social aspects: Do the elderly stay in their current apartment due to fear of losing their network and/or do the household lack friends and relatives that can help with practical things when moving? The answers to these questions are discussed in chapter 11.1.3.

11.1.1 Search cost and uncertainty

From the result presented in chapter 7 it can be seen that about 80 % of the respondents are content with their current housing situation and this should imply that all hypotheses that say that the elderly are staying in their current apartment or house because of high transaction cost can be questioned.

That the elderly is not so well-informed about the alternatives may be the result more of the lack of incentives to look for a new dwelling, than high costs for getting information about alternatives. As will be discussed in the next section there are however interesting differences between the age groups: "Something happens" at the age 75-85 year.

There are a number of "pull factors" that keep the households in their current apartment, e.g. that they have a garden and that they have a social network in the area. If it is the "pull" factors that dominate it is, however, not high transaction cost that explains their current housing situation.

It is also important to distinguish between search cost and lack of suitable alternatives. However most households do not agree to the statement "I would like to move, but have difficulties in finding a dwelling with the right properties, for example location and design" which also indicates that the a rather large majority simply is content with their current situation and that their choice has little to do with neither search cost nor lack of suitable alternatives.

11.1.2 Administrative and financial aspects

The main issue here is if there are direct financial transaction costs that to a large degree affect the households´ choice. A clear majority of those that own an apartment or condominium says that transaction taxes are not an important determinant of their current housing choice. It is however important to remember that as price levels in Gävle is lower than in Stockholm one should be careful about generalizing.

Many households do worry about monthly expenses after a move and low current expenses can explain why the households stay to a larger extent than transaction taxes do. The explanation for this is then primarily that the alternatives are more recently built living areas and therefore have higher rent levels or higher fees to the cooperative housing organization in the case of "bostadsrätt". Especially if a person moves from an owned house/apartment where he or she has lived for many years and thinks of moving to a newly built rental apartment in e.g. a secure living the increase in monthly expenses will be considerable.

The more direct administrative aspects, e.g. feeling uncomfortable with having to deal with a broker only seems to be of importance for the highest age groups and this will therefore be discussed in section 11.2

11.1.3 Social aspects

The general picture is as mentioned above that people stay in their current housing because they are comfortable with their situation, and not because they are afraid of losing a social network. Beside differences between age groups that are discussed below there are differences between especially single person households and two person households where the first group is more dependent upon the "external" contacts where they live.

Only a rather small group agreed to the statement "I still live in my dwelling because it is hard to get rid of a lot of things" and once again there were interesting differences between age groups as will be discussed below. The general picture is however that a large majority has family and friends that will help them with practical things if they want to move.

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Stimson & McCrea (2004) divide people into proactive retirees and reactive retirees, where the proactive retirees want to move while they still are able to choose where to move themselves. Even if there were no explicit questions about this the picture that emerge is that many household are reactive retirees – staying as long as possible in the apartment or house where they have lived a number of years.

11.2 Evaluation from the perspective of different age groups

In Sweden the general policy is to give help to the elderly in their home and that homes for the elderly – like nursing homes - primarily are for people with bad health. Most households – about 80 % - seem satisfied with their current housing situation, at least until they are 80 or 85 years old. Until then the level of satisfaction is high and there seems to be no strong obstacles that keep them from moving if they want.

When people become 80 years old or more, however, there are rather clear indications that both the will to move increases but also the obstacles to moving. Most elderly are living as a couple but as they become older many of the households are single households – often due to being a widow or a widower – and they then starts to think about moving to a smaller apartment. Most of them answered that they want to move to a senior living.

Looking at the obstacles the answers to the questionnaire indicate that when people come closer to 80 they find it more difficult to contact a real estate agent and also more difficult to get rid of things. There are also somewhat fewer that have friends and family that can help them. They seem to be more worried about having to move to another neighborhood. In many ways it should be expected that their capacity fall which makes it more difficult to take an initiative to own. If they are still rather healthy the municipality also will say no to a move to a nursing home. For this age group it seems correct to say that high transaction cost, in the broad sense of the term, keeps the elderly from moving to a better housing option.

In the general discussion the category 55+ is used but it is rather the age category above 75 years old that should be in focus, at least for the political decision making. Up to that age it is more up to the general housing market and various business concepts that can be launched focusing on groups with different preferences and different willingness to pay.

Looking at the result from the perspective of different general theories it can be seen that the number of years that the persons have lived in a dwelling also seems to increase with age – a sign that the people want continuity when they get older, as expressed in the

continuity theory (see chapter 3.2). But something that once was a pull factor eventually becomes a push factor as those households get older and health may deteriorate. They then feel that there are transaction costs when moving. This is instead a sign that people want to move to a smaller, and perhaps more central apartment, as expressed in the activity theory. That theory applies to those that are in the older age categories but now is considered to "healthy" to move to a nursing home.

11.3 Policy implications

Possible policies concern a number of aspects.

Information: Quigley (2002) discusses that the government should take a more active role in spreading the information, to lower the cost when moving. Burgess (2012) has a similar opinion when talking about housing and the ageing population in UK referring to the introduction of national information and advice service for elderly. According to her the elderly feel more confident in making decisions after using the service, and the government could actually save money by helping the elderly with advice about housing, care, finance and rights – for example by the prevention of falls, support to downsizing and freeing up resources.

The current study has only covered this to a minor extent concerning housing options and lack of knowledge about alternatives can simply be seen as a result of weak incentives to collect such information if one is comfortable with the current situation. As mentioned above the problem is in the older age groups, but it seems that other aspects than information is more important.

The tax system: The current system of property taxes in Sweden has a rather low tax on owning a property but rather high taxes on transacting a property or apartment, primarily in the form of a capital gains tax. Many have criticized this and argued for reducing transaction taxes and increasing the general property tax instead.

There might be a number of reasons for making such a change, but the current study does not indicate that the current taxes are a large influence on the elderly´s choice to move or not. The situation might however be different in regions with high price levels and therefore also higher taxes.

Direct subsidies to target groups: One way to reduce financial transaction costs and create incentives for moving may be to introduce some kind of transfer payment to those that need it the most – like Venti & Wise (1984) suggested.

The current study indicates that a subsidy like this should target households over 75 years that live in large apartments/houses, e.g. 3 rooms or more for single-person households or 4

rooms or more for 2-person households. Besides a direct subsidy, paid by the central government, there could also be included assistance with all the practical things related to a move. For especially this group help with information and advice like in U.K may be a good idea (see Burgess 2012), but this should perhaps not be part of the municipalities social service as there is a broader aim related to a more efficient use of the housing stock.

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Appendix 1: Systematic overview

Author	Type of transaction cost	Method	Focus	Conclusion
van Ommeren	Monetary lump sum costs	Welfare analysis	External effects when moving	There are no external effects that makes taxes necessary
Goodman	Transaction cost comes as a latent immobility cost. Mobility depends on length of stay and the choice between renovating and moving.	Simulation in a discrete two-period-model. The possibility to borrow at different extent is discussed.	The consumer optimize over time, given a constant housing consumption.	The market of mortgages is an important factor to increase the flexibility in the payments.
Quigley	Hindrance affecting neoclassic barter	Division in classes: Search costs, adjustment costs, financial costs, legal and administrative costs and costs of uncertainty	Deviation from a frictionless market	Nothing suggests that there is a connection between transaction costs and unemployment, but transaction costs seem to be a waste of resources. The government may simplify the information spread.
Venti & Wise	Moving cost at the rental market and governmental subsidy programs – in the form of lump sum subventions and minimal rent - is studied. Both monetary and non-monetary costs are included.	The method is based on experimental control families.	Rental market – how is it possible to make household move in order to increase their standard of living? Dead-weight-losses are studied at minimum rent for different kinds of subsidy programs.	Dead-weight-loss in connection with minimum-rent may be as large as 15-32 % of the total payment. Low efficiency due to low income elasticity and high moving costs. In average a family may pay $60 to be spared the trouble to move.

Author	Type of transaction cost	Method	Focus	Conclusion
Edin & Englund	Transaction cost appears as an effect on aggregate demand on housing and how to choose the sample.	Data from the HUS data-base is used and differences are made between recent movers and households near the equilibrium point. The term equilibrium is however vague and hard to measure and heteroscedasticity may exist.	How the aggregate demand on housing depend on if the data contains recent movers, who is considered to be nearer the equilibrium than those that have lived in their home for a couple of years.	A model containing duration as an explanatory variable may be a better model in the long run, but in the short run an effect of a policy may depend on if the household is waiting with a move that is already planned or not.
Haurin & Gill	The cost of owning the housing instead of renting it.	Data from the military is used because the tenure is assumed to have a specific length for the employees. Given the length of stay the household – married men within the military – choose to own or to rent. Simulations are used in the model.	Transaction cost and the planned length of stay of the living. The hypothesis that the length of stay determines if you own or rent the dwelling is tested.	Expected length of stay and the transaction cost when selling have an influence if you choose to own or rent. Simulations show that an increase of length of stay from 1 year to 10 year corresponds to a decrease of the mortgage from 21,3 % to 5,3 %.
Emmi & Magnusson	The article is a part in a project that is trying to clarify the correlation between the house market, the possibility to move and the propensity to move within a city. Calibration has then been made for data for Gävle, Jönköping and Västerås. The Markov model is used to simulate the reaction on new buildings and then through the Leontief model to simulate the reaction on new households in the municipality.	To define the mathematical structure on a couple of models for residential vacancy chain – a discrete Markov model and a Leontief model, respectively.	Focusing on how well the models for residential vacancy chain correspond and how well the calibration is on the prognoses	The Markov model gives as external effect information of the propensity to move within a municipality and the new possibilities to move. The Leontief model is used to estimate the demand of the current possibilities. A log-linear analysis – the most reliable according to the authors - shows projection error of between 3 % and 12 %.

Author	Type of transaction cost	Method	Focus	Conclusion
Andersson & Magnusson	This study analysis how attractive different part of Gävle is. Who is moving to what kind of area, according to different socio-economic factors? How does the vacancy chain look? The transaction cost may be interpreted as moving to an area where people have a higher socioeconomic background.	The sample is persons living in Gävle at one time during 1990-2004. Interviews of the importance of their living and the preference of type of living are made. A Markov model is then used to simulate chain of moving of newly buildings and regional relocations.	Focusing on vacancy chain in Gävle, especially dwellings produced 2001 and 2002.	The result is that movers tend to move into clusters where they have the same socioeconomic background as the households already living in the cluster. Most mobility is created when building a dwelling in the center for more than two households. When deciding if to rent or to own their dwelling the household seem to follow the lifecycle in housing.
Gibler & Clemens III	Does housing demand in the late stage of life differ from housing demand in general? Or are there other factors that need to be considered for the elderly? By discussing alternative demand equations the authors also discuss different definitions of transaction cost and what is triggering someone to move.	A logistic regression model is used to test which elderly that moves to retirement housing in USA. Is it those predicted by earlier models considering socioeconomic factors, or does prediction differs from the actual choice? Data between 2002 and 2004 from Health and Retirement Survey is used. Only households with at least one member over 65 years in the year 2002 are of interest.	This study test if the model used distinguish between movers who choose conventional housing and those who choose age-restricted or retirement housing.	In the overall model – which had a very low predictive power (0,07) - only age and race was significant, and race did not seem to be a stable variable. As the elderly population increases – as is the different alternatives for elderly housing - there is an increasing need to find alternative models for the demand.

Author	Type of transaction cost	Method	Focus	Conclusion
Stimson & McCrea	What is the decision choice process of moving to a retire-ment village? The transaction cost may be seen as the sum of the pull-factors that the person is feeling compared to the push-factors.	The method used is factor analyses, path analyses and push-pull framework. Data from Australian Bureau of Statistics is used. The author talks about proactive and reactive retirees.	The authors discuss push-pull factors when moving in Australia, trying to find predictor variables.	About 3 % of those 65 years and above wants to move to a retirement village. A push-factor found is age, but at the same time a pull-factor is the rootedness many feels that make them wants to stay in their home as long as possible.
Abramsson	Are there differences in transac-tion costs? Have some groups higher cost than others? What makes a person belong to a certain group? The Activity theory and the continuity theory are discussed.	A comparison between different authors is made, looking at their different focus.	This is an overview of earlier research of the housing of middle age and newly retired	There is a positive experience of senior living in Sweden, once the information is spread, but those born in the 40's seems to have other preferences and other incomes than those born earlier.
Abramsson & Niedomysl	Why do the elderly move? There are signs that housing is not only "a place to live" any longer but more of consumption that change over the life according to different preferences in different years.	The authors have made an enquiry of about 40 questions 2007, of persons moving more than 20 km during the year 2006. This study is focusing on persons 55-74 years old. The main question was "what was the most important factor that made you moved?"	Those born in the 40's are interesting in part because they have better income and other preferences and in part because they are the first group that moved to an own apartment, be-fore getting married.	Most people answer-ed that it was the housing environment that made them move – 40 % because of the living, whereof 16 % wanted to downsize their living in this age group. Another factor was to move closer to their relatives.

Appendix 2: The questionnaires (in Swedish)

ENKÄTFRÅGOR

Vänligen kryssa i den ruta som passar bäst in på dig samt skicka in den besvarade enkäten i bifogade svarskuvert. Svaren som ni lämnar är helt anonyma, och kommer inte att användas annat än i forskningssammanhang. Vi är tacksamma för alla svar som kommer in, men ber er ändå att besvara enkäten så fort som möjligt.

1) Hur gammal är du som fyller i denna enkät?

☐ 65-69 år ☐ 70-74 år ☐ 75-79 år ☐ 80-84 år ☐ 85 år eller äldre

2) Hur stort är ditt boende?

☐ 1 rum och kök (el kokvrå) ☐ 2 rum och kök ☐ 3 rum och kök

☐ 4 rum och kök ☐ 5 rum och kök eller större

3) Hur många vuxna bor stadigvarande i din nuvarande bostad?

☐ 1 person ☐ 2 personer ☐ 3 personer ☐ 4 personer eller fler

4) Bor du i hyresrätt, bostadsrätt eller ägt småhus?

☐ hyresrätt ☐ bostadsrätt ☐ ägt småhus ☐ annat

5) Hur länge har du bott i din nuvarande bostad?

☐ Mindre än 5 år ☐ 5-10 år ☐ 10 år eller mer

6) Tycker du att ditt boende är lagom stort?

☐ Ja, det är lagom stort ☐ Nej, det är för stort ☐ Nej, det är för litet

(Forts nästa sida)

1

7) Hur upplever du din ekonomiska situation?

☐ Bra ☐ Varken bra eller dålig ☐ Dålig

8) Har du funderat på att flytta till en annan lägenhet?

☐ Ja, jag har funderat på att flytta till en mindre lägenhet

☐ Ja, jag har funderat på att flytta till en lika stor eller större lägenhet

☐ Nej

9) Om du funderar på att flytta, vad skulle du helst vilja flytta till för boendeform?

Med seniorbostad menas här ett boende inom det ordinarie bostadsbeståndet, men som är anpassat för äldre. Ofta måste man vara minst 50 år för att få flytta in i dessa seniorboenden (vissa av dessa kallas även Tryggboenden). Med äldreboende menas ett boende med personal som erhålls via kommunen (i Gävle benämnt Vård & Omsorg)

☐ Jag skulle helst vilja flytta till seniorbostad

☐ Jag skulle helst vilja flytta till äldreboende

☐ Jag skulle helst vilja flytta till en vanlig bostadsrätt

☐ Jag skulle helst vilja flytta till en vanlig hyresrätt

☐ Jag skulle helst vilja flytta till ett (ägt) småhus/egna hem

☐ Jag står i kö för att flytta till ett äldreboende

2

10) Nedan följer ett antal påståenden. Kryssa i ifall du håller med – helt eller delvis – eller inte håller med alls.

a) "Jag är medveten om vad det finns för utbud på seniorboende/äldreboende"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

b) "Jag är medveten om vad det skulle kosta att flytta till ett seniorboende/äldreboende"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

c) "Jag vill gärna bo kvar inom samma område, även om jag flyttar"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

d) "Jag bor kvar i min bostad därför att mina månadsutgifter blir för höga efter en flytt"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

e) "Jag vill gärna flytta men ett hinder är att jag inte har någon anhörig eller vän som kan hjälpa mig"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

f) "Jag bor kvar eftersom det är svårt att göra sig av med en massa saker"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

g) "Jag är rädd att förlora mina vänner om jag flyttar"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

h) "Jag känner mig ensam och vill gärna flytta till äldreboende, men jag anses för frisk"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

i) "Jag vill gärna flytta, men har svårt att hitta en bostad med rätt egenskaper, till exempel läge, lägenhetsutformning"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

Här kommer några frågor som *endast* gäller dig som bor i småhus eller bostadsrätt:

j) "Jag vill inte flytta eftersom jag har en trädgård som jag tycker mycket om"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

k) "Jag bor kvar i mitt hus på grund av att det skulle bli så hög skatt om jag flyttade"

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

l) "Jag har funderat på att sälja mitt småhus/min lägenhet, men tycker det är jobbigt att anlita mäklare "

☐ Håller helt med   ☐ Håller delvis med   ☐ Håller inte alls med   ☐ Ingen åsikt

Är det något du vill tillägga när det gäller din syn på boendet idag och framtida boende(gäller alla)?

_____

_____

_____

Tack för att du visat intresse och fyllt i denna enkät!

4

Appendix 3, Questions to managers of elderly living

1)   Vilken inriktning har detta boende, är det t ex ett seniorboende eller tryggboende?

☐ Detta är ett seniorboende (55+) ☐ Detta är ett tryggboende (ca 70+)

☐ Detta är ett kombinerat senior- och trygghetsboende☐ Ingen speciell inriktning

☐ Övrigt (inkl. t ex demensboende)

_____

2)Vilken möjlighet finns det att få tillgång till någon service i detta äldreboende?

☐ Lunch☐ Städning☐ Tillgång till sköterska☐ Många har hemtjänst

3)Har de boende tillgång till samlingsrum/aktivitetsrum?

☐ Ja☐ Nej

4)Vilken ålderskategori tillhör de flesta som flyttar in i detta äldreboende?

☐ 55-64 år☐ 65-74 år☐ 75-84 år☐ 85 år och äldre

5) Vilket kön har de flesta som flyttar in i detta äldreboende?

☐ Kvinna☐ Man

6) Vad brukar vara det främsta skälet till att de flesta flyttar till äldreboende?

☐ De får förtur i och med sin hälsa ☐ De har stått i kö för ett boende länge

☐ Det är nästan ingen kö alls i detta område, så flytten går lätt

☐ De anhöriga vill att de äldre ska flytta in i ett äldreboende

☐ Det brukar vara av ekonomiska skäl som de flyttar in

7) Hur får de flesta vetskap om detta boende?

□ Via kontakter□ Via dagstidning□ Via internet □ Via Vård och Omsorg□ Mina anhöriga fann detta

8) Vilken hjälp brukar de boende få vid sin flytt?

□ De tar hjälp av en flyttfirma
□ De får hjälp anhöriga
□ De får hjälp av vänner
□ De får oftast inte någon hjälp

9)Vilken typ av boende upplever du att de flesta har innan de flyttade hit till äldreboende?

□ hyresrätt □ bostadsrätt □ äganderätt (villa, radhus, kedjehus)

10)Anser du som verksamhetschef att de boende flyttar in för sent?

□ Ja□ Nej, i lagom tid□ Nej, snarare för tidigt

11)Skulle det vara möjligt att intervjua de boende vid ett senare tillfälle?

□ Ja □ Nej

Om ja – ange hur vi i enklast kan komma i kontakt med er och/eller de boende:

_____

_____

Appendix 4, Questions to clients in elderly living

1) Jag som fyller i denna enkät är:□ Man □ Kvinna

2) Jag som fyller i denna enkät är:

   □ Ensamstående
   □ Gift/sammanboende
   □ Skild
   □ Änka/Änkling

3) Jag som fyller i denna enkät är _____ år.

4) Jag har bott på detta boende i ca _____ år

5) Hur bodde du innan du flyttade in i detta äldreboende

   ⚥ korttidsboende ⚥ annat äldreboende
   ⚥ bostadsrättslägenhet ⚥ villa, radhus eller kedjehus
   ⚥ hyreslägenhet sedan länge ⚥ hyreslägenhet, men tidigare villa/kedjehus/radhus
   ⚥ Annat boende_____

6) Vid flytt-tillfället - varför flyttade du just då (flera alternativ är möjliga)?

   □ Jag kände mig ensam
   □ Jag hade behov av mycket hemtjänst, så det kändes bättre att flytta till äldreboende
   □ Jag hade svårt att komma ut ur min lägenhet, så det kändes bättre att flytta
   □ Jag har stått i kö länge och nu fanns det ett ledigt boende
   □ Jag har stått i kö för just detta äldreboende länge
   □ Mina anhöriga var oroliga för mig och ville att jag skulle flytta
   □ Det var av ekonomiska skäl jag flyttade

7) Tycker du att du flyttade vid rätt tidpunkt?

   □ Ja, det var ungefär lagom
   □ Nej, jag borde ha flyttat tidigare

   Varför?

   _____

   _____

8) Var det något särskilt som gjorde att du inte flyttade tidigare?

_____

_____

_____

9) Vilken hjälp fick du vid din flytt?

☐ Jag anlitade en flyttfirma
☐ Jag fick hjälp av anhöriga/vänner
 ☐ Kommunen/ Äldreboendet ställde upp med viss hjälp

10) Hur har det nya boendet påverkat din situation? Kryssa i vilket/vilka av följande påståenden du tycker passar in?

☐ Det kändes tryggare att bo hemma den sista tiden än det gör nu
☐ Det känns tryggare att bo här, än det gjorde sista tiden hemma
☐ Här känner jag bättre igen den personal som hjälper mig jämfört med tidigare
☐ När jag bodde hemma var det lättare att känna igen de som hjälpte mig
☐ Nu är jag mera aktiv än jag var den sista tiden jag bodde hemma
☐ Nu är jag mindre aktiv än jag var när jag bodde hemma den sista tiden
☐ Jag har förlorat kontakten med de vänner/bekanta jag hade tidigare
☐ Jag har kvar kontakten med de vänner/bekanta jag hade tidigare
☐ Jag har fått nya vänner/bekanta som bor här på äldreboendet
☐ Jag tycker att det känns svårt att hitta nya vänner/bekanta
☐ På detta äldreboende ordnas många aktiviteter som jag brukar vara med på
☐ Här ordnas aktiviteter, men inga som jag brukar vara med på
☐ Mina kostnader varje månad har ökat
☐ Mina kostnader varje månad har minskat
☐ Mina anhöriga hälsar oftare på mig nu
☐ Mina anhöriga hälsar mera sällan på mig nu

11) Är du orolig inför framtiden? ☐ Ja ☐ Nej

Appendix 5: The distribution of observed and expected values in Gävle:

All age categories included:

Chi-Square Goodness-of-Fit Test for Categorical Variable: Fråga 1

Category	Observed	Test Proportion	Expected	Contribution to Chi-Sq
65-69 år	209	0,308	203,28	0,1610
70-74 år	182	0,230	151,80	6,0082
75-79 år	127	0,181	119,46	0,4759
80-84 år	112	0,144	95,04	3,0265
85 år eller äldre	30	0,137	90,42	40,3736

N	N*	DF	Chi-Sq	P-Value
660	0	4	50,0451	0,000

Age category 85 year and older excluded:

Chi-Square Goodness-of-Fit Test for Categorical Variable: Fråga 1_1_1

Category	Observed	Test Proportion	Expected	Contribution to Chi-Sq
65-69 år	209	0,357	224,91	1,12546
70-74 år	182	0,266	167,58	1,24082
75-79 år	127	0,210	132,30	0,21232
80-84 år	112	0,167	105,21	0,43821

N	N*	DF	Chi-Sq	P-Value
630	0	3	3,01681	0,389