



Housing Availability for Starters in the Netherlands

Are elderly people the key to the housing shortage?

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Abstract

This Bachelor's thesis examines the housing availability for starters in the Netherlands, with a focus on the role of elderly people in the housing shortage. The study uses a statistical analysis of the WoON 2021 dataset to investigate the extent to which elderly people are living in houses that would also be suitable for young households. The findings are compared to the theoretical background of ageing in place and related concepts, as well as the current housing market situation. The research aims to inform policy decisions that could improve the Dutch housing market. The main research question is: To what extent are elderly people living in houses that would be suitable for young households, considering the distance to specific amenities deemed desired by starters? The study also seeks to answer several sub-questions, including how young households and elderly people can best be described demographically, the difference in average distance between home and specific amenities for young and older households, and the willingness of elderly people to move. The study concludes that there is a significant difference between young households and elderly people with regard to the average distance to selected amenities, that elderly people have a higher percentage of houses with features such as a balcony, garden, patio, courtyard, and garage compared to young households, and that the houses in which elderly people live are on average 20,4% more expensive than those of young households. These findings have implications for policy decisions aimed at improving the Dutch housing market.

Introduction

"Huis gezocht!" It is a quote seen more and more often on social media. It belongs to people who belong to the group that has the means to buy a house but faces the availability of a suitable place to go to. In the coalition agreement of the current Dutch government (Rijksoverheid, 2021), it is acknowledged that "many Dutch people are currently unable to find a suitable home". In particular, the attention of the Dutch government is going towards building houses for starters, seniors and people with a middle income (Rijksoverheid, 2021).

With the increase in single-person households (*Huishoudens nu*, 2022) in combination with the growing population in the Netherlands (*Bevolkingsteller*, 2022), the need for places to live is rising by the day. Furthermore, the relative and absolute ageing population (*Bevolkingsspiramide*, 2023) also puts more pressure on the Dutch housing market. A related problem is that elderly people keep living in their single-family houses up to an older age (Van den Eerenbeemt, 2018) and that a decreasing portion of the Dutch elderly population is living in a healthcare institution or retirement home (Leidemeijer et al., 2017). As a result of not being able to find a suitable house, important life events such as starting one's own household, living together or having children (for young people), or moving to a house that is suitable for elderly people are postponed (Heerekop, 2023). Another problem is that elderly people tend to keep living in the houses that they are familiar with. Not only does this trend induce physical problems for elderly people (*Kwetsbare ouderen die nog thuis wonen vallen vaker, experts slaan alarm*, 2023), but by doing so, they prevent starters from entering the housing market (amongst others, Van den Eerenbeemt (2018), Van der Leij (2022), and Heerekop (2023)).

Also from academic literature, it emerges that changes in the ageing strategy have taken place. De Jong et al. (2022) note that the concept of 'ageing in place' has gained increasing attention in recent years as the number of older adults in the population continues to grow. This means that an



increasing number of elderly people in the Netherlands do not to move to an elderly care centre or another form of housing deemed more suitable for people of their age but rather keeps living in the house they already own and know. There can be several reasons for this, ranging from being the intentional result of the governmental strategy on healthy ageing in the own environment (Rijksoverheid, 2021), deemed to be in too good condition by the Centrum Indicatiestelling Zorg (Assessment Care Center, i.e. CIZ, an executive body of the Dutch National Government) to be granted a place in an elderly care centre, or not being able to find a house that is more suitable for their physical and/or mental state (Heerekop, 2023). A concept closely related to ageing in place is place attachment. Place attachment is important as well, as it refers to the emotional bond that people have with their living environment (Wiles et al., 2017).

In this research, a statistical analysis of the WoON 2021 dataset will be conducted to find out to what extent elderly people indeed live in houses that would also be suitable for young households, as implied by some recent news and literature. These findings will then be compared to the theoretical background of ageing in place and related concepts. Furthermore, the outcomes of the latter are compared with the current housing market situation, as it is the question with the current house prices that have increased by 81,2% since 2015 to an average selling price of €416.786 (*StatLine - Bestaande koopwoningen; verkoopprijzen; woningtype; prijsindex 2015=100, 2023*) to what extent houses now inhabited by elderly people, and houses in general, are within reach of young households, who, in general, do not have much economic power to buy a house (Luginbuhl and Smid, 2021). With this research, legislation could be introduced or adjusted to improve the plight of the Dutch housing market.

This research is focused on finding an answer to the following question:

- To what extent are elderly people living in houses that would be suitable for young households, considering the distance to specific amenities deemed desired by starters?

To support the main research objective, the following questions sought to be answered as well:

1. How can 'young households' and elderly people' best be described, looking at demographic factors?
2. To what extent is there a difference in the average distance between the home of a person and specific amenities, comparing young households with people of older ages?
3. What would be the willingness to move of elderly people?

Note: to make sure that this research is valid, an ex-ante check has been done to make sure that there is a significant difference between young households and elderly people with regard to the mean distance between where they live and the amenities of interest, with age as the dependent variable and no control variables.



Literature Review

This research aims to investigate the extent to which elderly people are living in houses that would be suitable for young households, considering the distance to specific amenities deemed needed for them. The research will draw on various theoretical perspectives from the literature on housing economics and life-course sociology. These perspectives will help to conceptualise and explain the factors that influence housing preferences and choices of different age groups, as well as the effects of housing on well-being and social outcomes.

Starter's homeownership

Homeownership among young people has been a topic of concern in recent years. According to Vangeel, Defau and De Moor (2023), younger generations in Europe are facing diminishing access to homeownership, and they indicate that policy interventions on this issue may be needed. Similarly, Paz-Pardo (2022) finds that young generations are less likely to own a house nowadays compared to previous generations at the same age, as well that at the same time, young people keep living at their parents' place up until a higher age.

However, when young people do find a place of their own, the location where these are located within a city tends to be influenced by several factors. The significance of amenities and services in housing preferences is supported by studies such as Clark and Hunter (1992) and Fisher, Pollakowski and Zabel (2009). Proximity to transportation, healthcare facilities, and other amenities influences residential choices. Analysing the average distance between homes and specific amenities for different age groups, as highlighted by (Leidelmeijer, van Iersel and Leering, 2017), can provide valuable insights into the suitability of housing for different generations.

As Sirgy, Grzeskowiak and Su (2005) explain, both functional congruity and self-congruity influence housing preference and choice positively, but their relative importance may depend on the situational and personal characteristics of the homebuyer. Following the natural life cycle, young households are likely to have, or soon get, children. The average and threshold walking distance to schools increases with age (Chillón et al. (2015) and Rodríguez-López et al. (2015)), although the urban form is also of importance (Schlossberg et al., 2006). This seems to signal that households with young children tend to live closer to schools, and possibly childcare facilities. Thus, this expectation will be checked with the data from WoON 2021 dataset, as it can have significant implications for policy advice. Furthermore, Moos (2016), Lee, Lee and Shubho (2019) and De Jong, Brouwer and McCann (2016) name urban and residential density as external factor that can be of significance in migration and housing research.

Elderly homeownership

Elderly homeownership has emerged as a topic of significant interest due to the increasing proportion of the population aged 65 and over. In contrast to young people, elderly homeownership is often associated with ageing in place and place attachment. Understanding the factors that influence residential preferences among older adults is crucial in determining whether their current housing is suitable for younger households. While age is an important factor, De Jong, Rouwendal and Brouwer (2018) highlight that the elderly population is diverse, and other factors also influence residential preferences. Studies have recognized the significance of residential preferences in



housing mobility (Coulter, Bayrakdar and Berrington (2020); Jaspers (2017)). Furthermore, urban restructuring can impact the residential preferences of older adults, as evidenced by Van Beckhoven and van Kempen (2003) study on the social effects of urban restructuring in Amsterdam and Utrecht.

Amenities such as access to transportation, healthcare, and other services also play a crucial role in shaping residential preferences (Clark and Hunter (1992); Fisher, Pollakowski and Zabel (2009)). Proximity to amenities becomes an important consideration when evaluating housing suitability. Leidelmeijer, van Iersel and Leering (2017) emphasize the significance of proximity to amenities as a key factor in future investment decisions. In terms of preferred house characteristics, Wang and Durst (2022) find that older adults tend to prefer single-family houses with two or three bedrooms and one or two bathrooms, which aligns with the preferences of first-time homebuyers. However, (Plegt, 2021) observes that first-time homebuyers mainly concentrate on the cheaper and middle segments of the housing market, whereas the more expensive segments are dominated by individuals who previously owned other properties. Thus, it is essential to compare the average house prices of elderly households with the overall housing stock and the economic capabilities of younger households.

Ageing in place

Ageing in place refers to the ability of older adults to live independently, safely, and comfortably in their own homes and communities, regardless of age, income, or ability level (Pani-Harremann et al., 2021). As populations across the globe experience unprecedented rates of ageing, the need for housing and care options that cater to the diverse needs and preferences of older adults becomes increasingly apparent (Alders and Schut, 2019). Understanding the concept of ageing in place is vital in comprehending the housing choices of older individuals and their potential impact on housing availability for younger households.

Attachment to place, characterized by the emotional and social bonds between individuals and their environments, can influence the health and well-being of older adults (Wiles et al., 2017). Place attachment provides a sense of identity, continuity, security, belonging, and satisfaction to older individuals and offers valuable resources and support for coping with change and decline (Lebrusán and Gómez, 2022). However, some older adults may encounter challenges and barriers to ageing in place, such as a lack of suitable housing options or support services (Banks et al., 2012).

To address these challenges, researchers advocate for more flexible and diversified housing options that cater to the diverse preferences and needs of older adults (de Jong et al., 2012). This may involve supporting home modifications or adaptations, exploring innovative housing models like co-housing or intergenerational living (Lies, Kang and Sample, 2017), and providing access to community-based services and support (Daalhuizen et al., 2019). By facilitating ageing in place, it becomes possible to enhance the quality of life and well-being of older adults (Wang and Durst, 2022).

Place attachment

Wiles et al. (2017) elaborate on place attachment in their paper. As people grow older, they may become more attached to their homes, making it more difficult for them to leave. Furthermore, they argue that attachment to place is a key driver and means for ageing in place. This attachment may



lead to elderly people resisting moves to alternative housing, despite the potential benefits for them. Therefore, addressing the issue of place attachment in relation to ageing should also be considered when creating a sustainable housing market that can meet the needs of all age groups. Furthermore, the paper argues that attachment to place can provide a sense of identity, continuity, security, belonging, and satisfaction for older people, as well as resources and support for coping with change and decline.

Aliakbarzadeh Arani et al. (2022) have found in their literature research that the five most important dimensions of place attachment are physical, social, economic, psychological, and autobiographical attachment. They conclude that due to this multifaceted nature of place attachment, there is no set definition possible of this concept. However, case studies like the one from Lebrusán and Gómez (2022) show that place identity is of emotional significance as an element that enables continuity. They argue that older adults who have a strong attachment to their homes and communities are more likely to age in place successfully.

Lies, Kang and Sample (2017) investigated the relationship between place attachment and design features in a rural senior cohousing community and found that design features such as shared spaces, gardens, and community activities contributed to older adults' attachment to the community. They also suggest that community design should consider the needs of older adults to promote their sense of place attachment. And concluding, technological advances have the potential to influence place attachment among older adults, according to Peine et al. (2021). They argue that technology can be used to enhance place attachment by facilitating social connections and providing access to resources and services.

Willingness to move

Research findings indicate that attachment to place, characterized by the emotional and social bonds between individuals and their environments, exerts a substantial influence on the decision-making process of older adults contemplating relocation or remaining in their current homes (Wiles et al., 2017). This concept of place attachment serves as a source of identity, continuity, security, belonging, and satisfaction specifically for the elderly population (Wiles et al., 2017). Interestingly, the impact of age emerges as a paramount factor when examining patterns of moving behaviour, with a notable peak in relocation decisions observed within the 65-70 age range, followed by a gradual decline beyond the age of 80 (Haacke et al., 2019). Additional support for this notion is provided by Wang and Durst (2022), who discovered that older individuals generally exhibit a decreased inclination to relocate in comparison to their younger counterparts. Nevertheless, this trend can be influenced by factors such as health problems or residing in unsuitable housing, which can prompt older adults to reconsider their relocation decisions (Haacke et al., 2019).

However, it is important to acknowledge that age is just one piece of a complex puzzle, as individual factors, including health status, social networks, life course events, housing preferences, and contextual elements like housing market conditions and urban amenities, all contribute to the decision-making process (de Jong, Rouwendal and Brouwer, 2022). It becomes evident, therefore, that aging in place may pose challenges or barriers for some older adults. For instance, the absence of suitable housing options or inadequate support services can prompt them to consider alternative locations that better align with their needs and preferences (Banks et al., 2012). Moreover, personal

circumstances, such as health, financial resources, and social support networks, can significantly influence the willingness of older adults to embark on a relocation journey (Haacke et al., 2019).

Interestingly, research has also unveiled that the propensity of older adults to move can vary based on their geographical location and cultural context (de Jong, 2020). For instance, studies conducted in The Netherlands revealed a higher inclination among older adults to relocate when compared to their counterparts in other countries (de Jong, 2020). These findings underscore the importance of considering the unique circumstances and specific needs of older adults when devising policies and implementing programs that facilitate and support their housing choices. By incorporating this knowledge into policy development, stakeholders can ensure the creation of targeted strategies that effectively address the diverse factors influencing the decision-making processes of older adults in relation to relocation.

The conceptual model (Figure 1) presents the factors that influence an individual's housing choice following the literature review. These factors include amenities, community, place attachment, housing preference, and willingness to move. The presence or absence of amenities and their effects on the community can impact an individual's attachment to a place and their housing preference. This can affect their willingness to move. The model also takes into account the individual's current housing and financial situation as well as their life course. Based on this theory, it is expected that a combination of factors hold elderly people from moving to a more suitable house regarding their age and health situation, and so preventing opening their current one to the housing market.

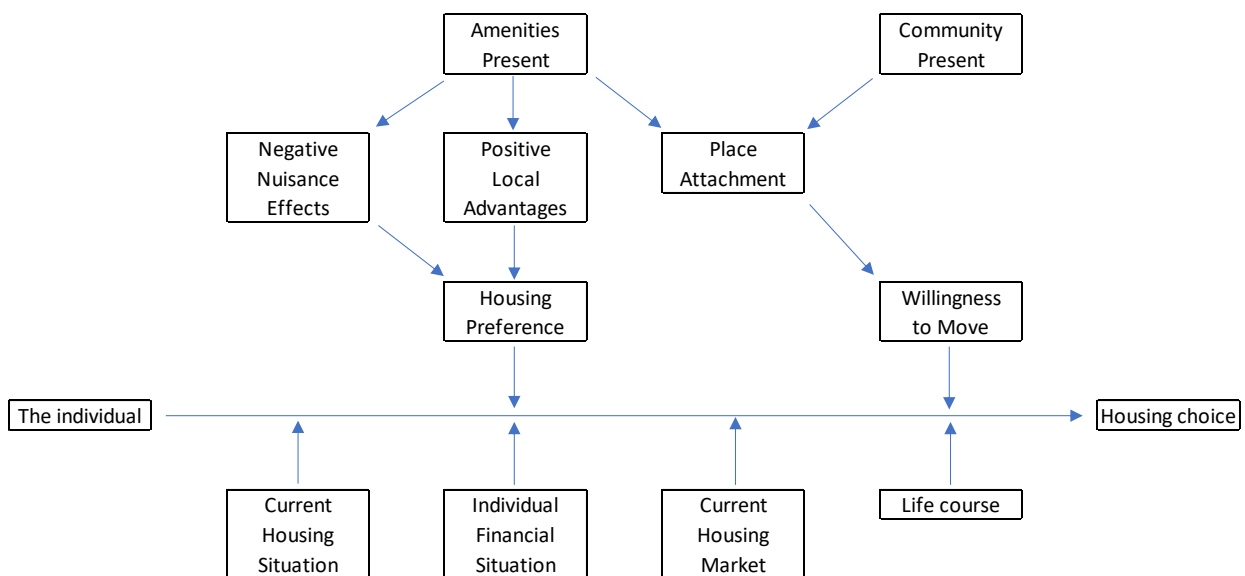


Figure 1: conceptual framework. The reasoning for a specific housing choice for an individual.

Methodology

In this research, it is chosen to use secondary data from the 'Woononderzoek Nederland 2021 – woningmarktmodule – release 1.0' dataset, also known as the WoON 2021 dataset, rather than conducting our own survey. The WoON 2021 dataset is the result of extensive collaborative research conducted by the Centraal Bureau voor de Statistiek (Statistics Netherlands, i.e. CBS) and Planbureau voor de Leefomgeving (Netherlands Environmental Assessment Agency, i.e. PBL), involving Dutch



citizens. It is considered the largest dataset available to researchers and provides up-to-date insights into the housing situation of Dutch people. The 2021 version of the WoON dataset comprises data from 46,658 individuals.

The primary advantage of using this existing dataset over conducting one's own survey is that it significantly reduces the cost of data collection in terms of time, effort, and finances. Additionally, the WoON dataset provides a broader representation of the population than individual data collection efforts can achieve, as it encompasses a wide range of variables, including demographics, living conditions, and location-related factors. Moreover, it is reasonable to expect that an established dataset like this has been collected using rigorous research methods, enhancing the reliability and validity of the data.

In the context of investigating whether elderly people live in houses suitable for young households, the WoON dataset proves to be an excellent resource. Its representative sample of households in the Netherlands encompasses both elderly people and young households, enabling the generalizability of findings to the broader population. It is worth noting that the researchers state in their research approach that the sample is adjusted to correct for the Dutch population. Consequently, this thesis will discuss the population rather than the sample.

Furthermore, the dataset's comprehensive range of variables allows for an analysis of the factors that may influence whether a housing unit is suitable for both elderly people and young households. However, it is important to acknowledge that a limitation of the WoON 2021 dataset is the absence of specific variables pertaining to young households and elderly people as distinct demographic groups. Consequently, 'young households' and 'elderly people' will be assigned to dummy variables with specific characteristics in this study.

Before the research itself, in Stata/SE, can take place, the data had to be cleaned up and prepared, as the raw dataset contains many observations that cannot be used in this research and because a new variable needs to be added. The first step is cleaning the data. The entire syntax from the Stata/SE do-file with regard to the cleaning and preparation of the dataset can be found in Appendix 1. As this research only focuses on privately owned houses, all observations where this is not the case should be dropped. Furthermore, only the observations where the house is not being rented out or shared should be kept in the dataset, as in those cases, the person behind the observation does live in the house itself. Then, all observations where either the age or one of the distance-related variables is missing should be dropped.

Next, the variable 'agegroup' is generated. This is done by combining the seven age groups in the variable 'leeftijd' in the raw dataset into three groups: agegroup 1 (ages 17-24 & 25-34), agegroup 2 (ages 35-44, 45-54 & 55-64), and agegroup 3 (ages 65-74 & 75 and older). Following the Eurostat guideline for "young people on the labour market" (*EU labour force survey – main features and legal basis, 2021*), which is used by Eurostat in their household composition statistics (*Household composition statistics, 2023*), the 'young households' in this research are the people aged 17 to 34 (value 1 of the 'agegroup'-variable). On top of that, only the people that identified themselves as single, head of the household, partner or parent (in law) are selected to form the dummy variable "younghh". Following the Eurostat guideline on "population structure and ageing" (*Population structure and ageing, 2023*), the 'elderly people' are the people aged 65 and over (value 3 of the 'agegroup'-variable), plus the same household position as the people in the "younghh" to form the 'elderly' dummy variable. So, by doing this, research question 1 is answered. After cleaning up and preparing the data, the used commands are stated in the previously-mentioned Stata/SE do-file, and



the survey outcomes of 24.647 individuals remain, out of which 2.751 fall in the category young household and 7.208 in the category elderly.

A multivariate regression is conducted to find out if there is a significant difference between young households, elderly people and the overall population with regard at which distance they live from selected amenities. These amenities follow from the theoretical framework. Schools and childcare facilities are the first amenities as, Schlossberg et al. (2006), Chillón et al. (2015) and Rodríguez-López et al. (2015) indicate that these are age-dependent. The other amenity are train stations, following Fisher, Pollakowski and Zabel (2009), among others. As control variable, the degree of urbanisation is used, as suggested by Moos (2016), among others. The null hypothesis is that young households and elderly people live at the same distance from the selected amenities as the population.

As stated before, an ex-ante check was done before the research started to make sure there is indeed a significant difference between the young households and the elderly people with regard to the average distance to the selected amenities. However, due to the large nature of the dataset in terms of variables and observations, a robustness test is carried out to make sure that the results of the multivariate regression are valid. The results of the robustness test can be found in Appendix 2, together with all other conducted statistical tests and their respective outcomes.

Results

First of all, following the findings from, among others, Chillón et al. (2015) and Rodríguez-López et al. (2015), the first step in this research is to conduct a multivariate analysis to find out whether or not the selected group of young households tend to live closer to primary schools, childcare facilities and train stations, compared to the group of elderly people, and corrected for the urban density.

The multivariate regression (Table 1) shows that for each of the three distance-related variables, the coefficient of the dummy variable for young households is significant. This means that the assumption that young households live, on average, at the same distance from amenity x as the rest of the population is rejected. Furthermore, all three times, the corresponding coefficient of the young households is negative, which indicates that this group lives closer to all three amenities, on average. On the other hand, there are the elderly. The coefficient for this group is in neither of the three cases significant. That means that the assumption that elderly people live, on average, at the same distance from amenity x as the rest of the population is accepted.

These combined results make that it is confirmed that young people live closer to primary schools, kindergartens and train stations than elderly people, answering research question 2. This corresponds with the findings from, among others, Chillón et al. (2015) and Rodríguez-López et al. (2015). These findings emphasise that prospective starters could especially benefit from available housing relatively close to these amenities.

Secondly, the descriptive statistics of the houses of young households and elderly people, as can be found in Table 2, are reviewed. The results show that elderly people have a higher percentage of houses with features such as a balcony, garden, patio, courtyard, and garage compared to young households. Additionally, the average usable living area and the mean size of the living room are larger for elderly people than for young households, while the number of people present in the household is significantly lower among the elderly people compared to young households. This signals that there is a considerable amount of elderly people that is living in a house that is much



bigger than what they would need. These findings align with the literature, which suggests that elderly homeownership is often associated with ageing in place and place attachment.

The results also show that elderly people have a higher percentage of energy-efficient houses with energy labels A and B compared to young households. Furthermore, a higher percentage of elderly people report being very satisfied with their housing situation compared to young households. These findings support the notion that attachment to place can provide a sense of identity, continuity, security, belonging, and satisfaction for older people (Wiles et al., 2017).

The findings of Luginbuhl and Smid (2021) are relevant when considering Table 3, which presents an analysis of the average expected sales values of the current houses of young households and elderly people per COROP region. The data is presented per COROP region to provide a more detailed and nuanced view of the housing market situation for young households and elderly people across different regions in the Netherlands. This allows for a better understanding of regional differences and can inform policy decisions at the regional level, also shown in Figure 2. The table shows that, on average, the expected sales value of the houses of elderly people is significantly higher than that of young households. This difference in expected sales value could have implications for the ability of young households to buy a house, as suggested by Luginbuhl and Smid (2021). The results show that, at this moment, the average house of an elderly person or household is 20.4% more expensive than the average house of a young person or household. This is in line with the findings of Plegt (2021) that young households tend to move to middle and lower class housing in terms of pricing.



Tested amenity	Obs	R-sq				
In distance primary school	24.647	0,0572				
In distance childcare facility	24.647	0,1135				
In distance train station	24.647	0,2277				
	Coefficient	Std. Err.	t	P>t	[95% confidence interval]	
In distance primary school						
younghh	-0,059959	0,0180066	-3,33	0,001	-0,095253	-0,0246649
elderly	-0,006442	0,0124481	-0,52	0,605	-0,0308411	0,0179571
urban density						
sterk (1.500 tot 2.500 omgevingsadressen/km2)	0,2267597	0,0170615	13,29	0,000	0,1933181	0,2602013
matig (1.000 tot 1.500 omgevingsadressen/km2)	0,3207667	0,0179164	17,90	0,000	0,2856495	0,3558839
weinig (500 tot 1.000 omgevingsadressen/km2)	0,4233613	0,0183826	23,03	0,000	0,3873302	0,4593924
niet (<500 omgevingsadressen/km2)	0,6756777	0,0186015	36,32	0,000	0,6392175	0,7121378
constant	5,985958	0,0139225	429,95	0,000	5,958669	6,013247
In distance childcare facility						
younghh	-0,0682045	0,0191488	-3,56	0,000	-0,1057374	-0,0306716
elderly	0,0241419	0,0132378	1,82	0,068	-0,0018049	0,0500887
urban density						
sterk (1.500 tot 2.500 omgevingsadressen/km2)	0,4047576	0,0181438	22,31	0,000	0,3691947	0,4403206
matig (1.000 tot 1.500 omgevingsadressen/km2)	0,5811917	0,0190529	30,50	0,000	0,5438468	0,6185365
weinig (500 tot 1.000 omgevingsadressen/km2)	0,7031082	0,0195487	35,97	0,000	0,6647915	0,7414249
niet (<500 omgevingsadressen/km2)	1,044290	0,0197815	52,79	0,000	1,005517	1,083063
constant	5,627264	0,0148057	380,07	0,000	5,598244	5,656284
In distance train station						
younghh	-0,0558806	0,0179174	-3,12	0,002	-0,0909998	-0,0207614
elderly	0,0184999	0,0123865	1,49	0,135	-0,0057784	0,0427781
urban density						
sterk (1.500 tot 2.500 omgevingsadressen/km2)	0,2956019	0,016977	17,41	0,000	0,262326	0,3288778
matig (1.000 tot 1.500 omgevingsadressen/km2)	0,5822271	0,0178277	32,66	0,000	0,5472839	0,6171704
weinig (500 tot 1000 omgevingsadressen/km2)	0,9512154	0,0182916	52,00	0,000	0,9153628	0,987068
niet (<500 omgevingsadressen/km2)	1,377060	0,0185094	74,40	0,000	1,340781	1,413340
constant	7,496825	0,0138535	541,15	0,000	7,469671	7,523978

Table 1: Multivariate regression analysis. 'younghh' and 'elderly' are dummy variables, for the variable 'urban density' 'zeer sterk' (very strong, more than 2500 addresses/km²) is omitted, and de facto the standard situation.



Descriptive statistics of the house		Young households	elderly people	Difference
Feature(s) present	Balcony	30,36%	58,57%	28,21%
	Garden	77,83%	81,80%	3,97%
	Patio	1,38%	3,27%	1,89%
	Courtyard	2,04%	4,88%	2,84%
	'Erf'	5,49%	12,15%	6,66%
	None of the above	2,40%	0,93%	-1,47%
	Garage (may include carport)	28,03%	55,88%	27,85%
	Carport	3,67%	6,85%	3,18%
	None of the above	68,30%	37,26%	-31,04%
	Parking facility, private	15,91%	23,19%	7,28%
	Parking facility, shared	34,38%	28,00%	-6,38%
	No parking facility	49,71%	48,81%	-0,90%
	House is life-course resistant	25,95%	38,96%	13,01%
	House is not life-course resistant	74,05%	61,04%	-13,01%
	Disability adaptations present	2,51%	16,97%	14,46%
No disability adaptations present	97,49%	83,03%	-14,46%	
Characteristics	Usable living are (m2)	114,49	147,04	32,55
	Mean size of living room (m ²)	40,00	44,41	4,41
	Mean number of rooms	4,51	4,81	0,30
	Mean number of liveable floors	2,42	2,27	-0,15
	Mean number of people in household	2,50	1,72	-0,78
Energy label	A	24,52%	24,05%	-0,47%
	B	12,78%	22,52%	9,74%
	C	25,61%	28,86%	3,25%
	C	13,57%	10,89%	-2,68%
	E	11,48%	5,86%	-5,62%
	F	6,83%	4,20%	-2,63%
	G	5,22%	3,63%	-1,59%
Housing satisfaction	Very satisfied	42,17%	63,10%	20,93%
	Satisfied	51,18%	33,67%	-17,51%
	Neutral	5,42%	2,77%	-2,65%
	Unsatisfied	1,05%	0,32%	-0,73%
	Very unsatisfied	0,18%	0,14%	-0,04%
Expenses	Mean cost of living per month	€ 1.026,95	€ 627,10	€ -399,85

Table 2: Descriptive statistics of the current houses of young households and elderly people.



Expected sales value of the house							
COROP classification of current place of residence	Young households			Elderly people			Difference
	Mean	Std. dev.	Freq.	Mean	Std. dev.	Freq.	
Oost-Groningen	€ 227.214	€ 100.962	14	€ 258.818	€ 101.703	44	€ 31.604
Delfzijl en omgeving	€ 159.000	€ 86.631	5	€ 215.773	€ 72.201	22	€ 56.773
Overig Groningen	€ 257.787	€ 105.325	51	€ 312.551	€ 177.022	136	€ 54.764
Noord-Friesland	€ 263.438	€ 133.581	48	€ 271.269	€ 116.830	143	€ 7.831
Zuidwest-Friesland	€ 232.083	€ 132.673	12	€ 331.253	€ 226.293	79	€ 99.170
Zuidoost-Friesland	€ 274.352	€ 124.345	23	€ 340.118	€ 164.503	93	€ 65.766
Noord-Drenthe	€ 270.303	€ 101.637	38	€ 354.040	€ 223.390	113	€ 83.737
Zuidoost-Drenthe	€ 253.158	€ 94.959	19	€ 268.890	€ 104.070	82	€ 15.732
Zuidwest-Drenthe	€ 279.121	€ 106.118	29	€ 379.429	€ 339.876	63	€ 100.308
Noord-Overijssel	€ 283.315	€ 84.767	168	€ 355.523	€ 176.797	370	€ 72.208
Zuidwest-Overijssel	€ 325.400	€ 154.955	15	€ 392.762	€ 295.237	42	€ 67.362
Twente	€ 299.240	€ 184.180	129	€ 340.465	€ 218.755	370	€ 41.225
Veluwe	€ 318.374	€ 116.384	107	€ 416.940	€ 236.820	306	€ 98.566
Achterhoek	€ 298.446	€ 248.803	56	€ 357.937	€ 198.367	205	€ 59.491
Arnhem/Nijmegen	€ 295.319	€ 108.227	119	€ 374.418	€ 176.261	318	€ 79.099
Zuidwest-Gelderland	€ 351.530	€ 154.521	33	€ 399.313	€ 163.117	91	€ 47.783
Utrecht	€ 365.160	€ 178.351	394	€ 476.467	€ 257.426	606	€ 111.307
Kop van Noord-Holland	€ 283.167	€ 95.674	48	€ 332.369	€ 139.008	157	€ 49.202
Alkmaar en omgeving	€ 301.591	€ 128.428	22	€ 424.785	€ 289.734	100	€ 123.194
IJmond	€ 278.750	€ 77.661	20	€ 404.128	€ 218.259	86	€ 125.378
Agglomeratie Haarlem	€ 399.143	€ 209.512	21	€ 630.805	€ 399.782	87	€ 231.662
Zaanstreek	€ 329.353	€ 123.320	17	€ 417.365	€ 179.160	52	€ 88.012
Groot-Amsterdam	€ 424.842	€ 182.446	152	€ 501.955	€ 322.865	266	€ 77.113
Het Gooi en Vechtstreek	€ 372.500	€ 169.820	18	€ 562.476	€ 353.705	103	€ 189.976
Agglomeratie Leiden en Bollenstreek	€ 388.019	€ 132.041	52	€ 454.114	€ 245.653	176	€ 66.095
Agglomeratie 's-Gravenhage	€ 310.679	€ 151.381	106	€ 451.046	€ 320.246	282	€ 140.367
Delft en Westland	€ 354.773	€ 149.312	44	€ 399.688	€ 229.020	80	€ 44.915
Oost-Zuid-Holland	€ 314.674	€ 130.650	46	€ 386.608	€ 235.503	130	€ 71.934
Groot-Rijnmond	€ 328.083	€ 181.621	187	€ 361.295	€ 228.794	380	€ 33.212
Zuidoost-Zuid-Holland	€ 266.731	€ 92.207	65	€ 333.654	€ 183.764	104	€ 66.923
Zeeuwsch-Vlaanderen	€ 250.818	€ 95.919	11	€ 290.595	€ 144.338	83	€ 39.777
Overig Zeeland	€ 269.414	€ 122.028	58	€ 357.526	€ 199.618	234	€ 88.112
West-Noord-Brabant	€ 329.982	€ 283.901	85	€ 396.022	€ 242.898	267	€ 66.040
Midden-Noord-Brabant	€ 336.214	€ 158.823	98	€ 383.283	€ 214.824	240	€ 47.069
Noordoost-Noord-Brabant	€ 359.692	€ 162.244	91	€ 405.458	€ 204.621	288	€ 45.766
Zuidoost-Noord-Brabant	€ 354.447	€ 216.650	103	€ 419.704	€ 243.790	289	€ 65.257
Noord-Limburg	€ 272.404	€ 90.095	52	€ 313.957	€ 118.082	117	€ 41.553
Midden-Limburg	€ 289.679	€ 82.134	28	€ 298.955	€ 126.990	110	€ 9.276
Zuid-Limburg	€ 259.626	€ 101.578	87	€ 306.223	€ 181.349	325	€ 46.597
Flevoland	€ 281.038	€ 152.431	80	€ 329.592	€ 202.809	169	€ 48.554
	Mean	Std. dev.	Freq.	Mean	Std. dev.	Freq.	Difference
Total	€ 321.131	€ 163.936	2.751	€ 386.726	€ 236.439	7.208	€ 65.595

Table 3: Analysis of the average expected sales values of the current houses of young households and elderly people, per COROP region.

According to the statistics presented, it is evident that elderly individuals generally reside in houses that are more expensive than those occupied by younger households. Additionally, the data indicates that the location of these houses, in terms of proximity to amenities, is suitable for younger households. However, a challenge arises as elderly individuals seldom relocate to another house as they age (Haacke *et al.*, 2019). As a result, while the houses may be situated in locations suitable for younger households, there is a lack of alternatives for elderly individuals to move to more life-course resistant housing (Rijksoverheid, 2021). When elderly individuals do relocate, the houses they vacate are generally more expensive than what younger households can afford. Although there are smaller differences in some COROP regions, such as Noord-Friesland, Zuidoost Drenthe, and Midden-Limburg, on average, the houses of elderly individuals are worth €65,595 more. An examination of the differences within COROP regions reveals that rural municipalities tend to have lower differences in sales values of houses compared to municipalities in the western part of the Netherlands (Figure 2). Consequently, there is a greater likelihood of encouraging elderly individuals to relocate to areas where the differences in house value are lower, as these houses are relatively more affordable for younger households than in areas where the difference is insurmountable.

Table 4 presents the wish to move in the upcoming two years of elderly people. It shows that 25% of the elderly have some wish to move, although the majority of this group says that this wish is only a light one. However, when this group of elderly that is interested in moving signals what the reason is for this wish, it becomes clear that nearly 59% of them give their health situation as a factor. This is an interesting finding because it shows that there is a significant portion of elderly people who are willing to move, which could help alleviate the housing shortage for starters. However, it also shows that there is still a large portion of elderly people who are not willing to move, which could be due to several reasons, such as place attachment. This finding is consistent with the literature review, which notes that elderly people tend to keep living in the houses that they are familiar with.

Wish to move within the next 2 years - elderly		
	Frequency	Percentage
Certainly not	5.426	75,28%
Possibly	1.381	19,16%
I want to but I am unable to find a place	222	3,08%
Certainly	92	1,28%
I already found a new home	87	1,21%
Total	7.208	100,00%
Reason of wish to move within the next 2 years - elderly		
Reason: health/need for healthcare		
	Frequency	Percentage
Selected	1.029	58,57%
Not selected	728	41,43%
Total	1.757	100,00%

Table 4: Statistics on the wish to move in the upcoming 3 years of elderly people.

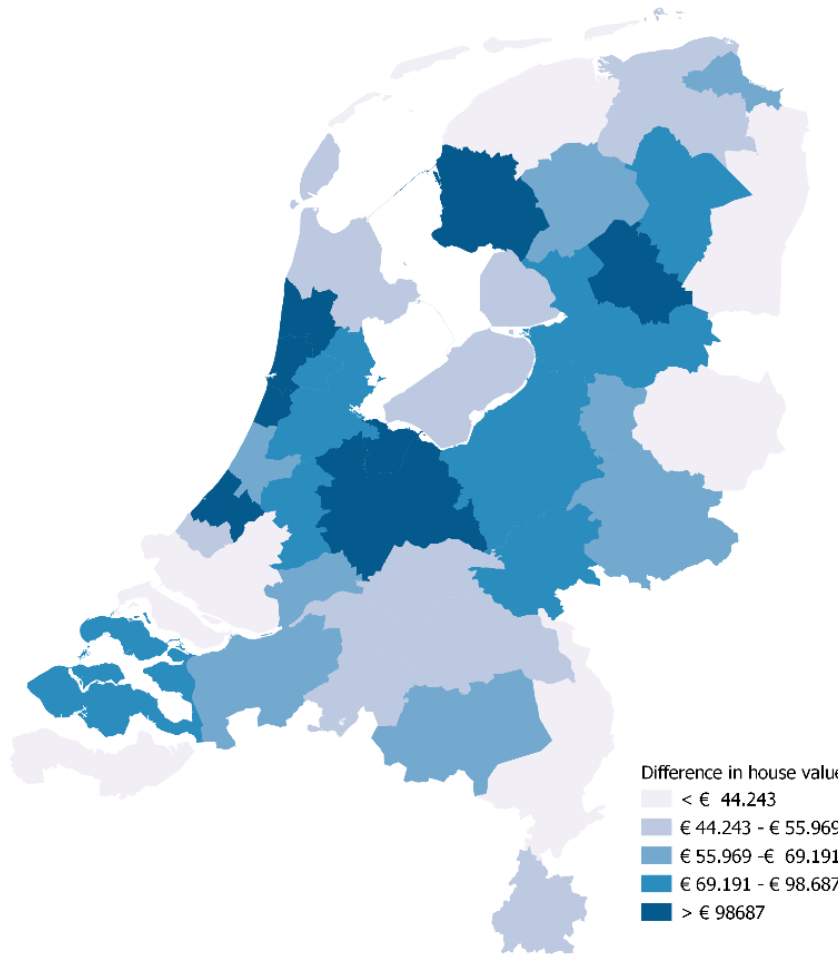


Figure 2: A map of the Netherlands, highlighting per COROP region the difference in mean house value between young households and elderly people. Data: WoON 2021, visualised in QGIS.

Conclusion

In conclusion, this thesis has demonstrated that young households reside closer to amenities they deem important, such as primary schools, childcare facilities, and train stations, than elderly households. Additionally, there is a significant gap between the average house value of elderly households (€ 386.726) and young households (€ 321.131),

indicating that young households may have difficulty affording the houses occupied by the elderly closer to the aforementioned amenities. An overview of the differences between COROP regions in the Netherlands revealed that there are substantial disparities between these regions. The difference in house value between elderly and young households appears to be larger near large cities in the west of the country than in more rural municipalities on the periphery. As such, younger households have a greater chance of moving to a house occupied by the elderly in peripheral areas.

However, it is important to note that this thesis has also shown that the living expenses of elderly households are lower than those of younger households, which may make it less attractive for them to move out. They have often paid off their houses and can continue living in them with some adjustments, which is encouraged by the government. Only with appropriate residential products for the elderly can they be motivated to move. As this thesis has demonstrated, this would have a greater impact on young households in regions where the differences in house value are the lowest. Thus, this thesis has provided valuable insights into where stimulating the elderly to find more suitable forms of housing would be most successful for young households.

In terms of policy implications, it is recommended that policymakers focus on developing appropriate residential products for the elderly that meet their needs and preferences. This could include providing incentives for them to move to more suitable forms of housing, such as financial assistance or support with relocation. Additionally, efforts should be made to address the disparities in house



value between elderly and young households, particularly in regions where these differences are most pronounced.

Future research could explore other factors that may influence the decision-making process of elderly people when considering relocation or remaining in their current homes. This could include examining individual factors such as health status, social support networks, and personal preferences. Additionally, further research could investigate the effectiveness of different policy interventions aimed at addressing the housing needs of both elderly and young households. Also finding ways to the fairly low coefficient of determination (r -squared) in this research could be a goal in future research.

In summary, this thesis has provided valuable insights into the housing situation and willingness to move of elderly people. The findings have important implications for policymakers and suggest several avenues for future research.

Reflection

I would like to acknowledge that there are always areas for improvement in any research project. While I am proud of the work that I have done, I recognize that there may have been limitations in my methodology or analysis. For example, the WoON 2021 dataset used in my research has its limitations, such as the absence of specific variables pertaining to young households and elderly people as distinct demographic groups. Additionally, there may have been other factors or variables that could have been included in my analysis to provide a more comprehensive understanding of the Dutch housing market. However, through this thesis, I improved on my skills used to review, analyse and use academic literature in a text like this, and I learned to better understand and use statistical software.



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Appendix 1: Stata/SE do-file – cleaning up the raw dataset

Cleaning up the WoON2021_e_1 dataset

clear all

use "C:\Users\thijs\OneDrive\RUG\Bachelorproject\2022-2023-1\WoON 2021
 dataset\WoON2021_e_1.0.dta"

Keep only the observations where the house is privately owned

keep if eighuura==1

Keep only the observations where the house is not being rented out or shared

drop if hhverhur==1

drop if mrhhipd==1

drop if srtwon==7

*Keep only the variables where people are not living in an elderly care house

drop if oudwon == 1

Keep only the observations where there is a value present for age, as well as all distance-related variables

drop if missing(leeftijd)

drop if missing(vzafstandbasisond)

drop if missing(vzafstandkdv)

drop if missing(vzafstandtreinst)

*Replace '0'-values by '1' for statistical reasons

replace vzafstandbasisond = 1 if vzafstandbasisond==0

replace vzafstandkdv = 1 if vzafstandkdv==0

replace vzafstandtreinst = 1 if vzafstandtreinst==0

Generate the new age variable with 3 groups



```
generate agegroup = 1 if leeftijd < 3
```

```
replace agegroup = 2 if leeftijd > 2
```

```
replace agegroup = 3 if leeftijd > 5
```

Create agegroup dummies

```
tabulate agegroup, generate (agegroupdum)
```

Take the natural logarithm of the distance-related variables

```
gen lnvzafstandbasisond = ln(vzafstandbasisond)
```

```
gen lnvzafstandkdv = ln(vzafstandkdv)
```

```
gen lnvzafstandtreinst = ln(vzafstandtreinst)
```

*Generate a dummy variable for young households

```
gen younghh = 0
```

```
replace younghh = 1 if agegroup == 1 & (plhhop == 1 | plhhop == 2 | plhhop == 4)
```

*Generate a dummy variable for elderly people

```
gen elderly = 0
```

```
replace elderly = 1 if agegroup == 3 & (plhhop == 1 | plhhop == 2 | plhhop == 4)
```



Appendix 2: Stata/SE – Statistical tests and outcomes

*Multivariate regression to find out if young households and elderly people live at the same distance from the three amenities, on average

mvreg Invzafstandbasisond Invzafstandkdv Invzafstandtreinst = i.younghh i.elderly i.stedbuurt

Equation	Obs	Parms	RMSE	"R-sq"	F	P>F
Invzafstan~d	24,647	7	.8650179	0.0572	249.3288	0.0000
Invzafstan~v	24,647	7	.9198899	0.1135	525.763	0.0000
Invzafstan~t	24,647	7	.8607332	0.2277	1211.026	0.0000

	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
Invzafstandbasisond						
1.younghh	-.059959	.0180066	-3.33	0.001	-.095253	-.0246649
1.elderly	-.006442	.0124481	-0.52	0.605	-.0308411	.0179571
stedbuurt						
sterk (1500 tot 2500 omgevingsadressen/km2)	.2267597	.0170615	13.29	0.000	.1933181	.2602013
matig (1000 tot 1500 omgevingsadressen/km2)	.3207667	.0179164	17.90	0.000	.2856495	.3558839
weinig (500 tot 1000 omgevingsadressen/km2)	.4233613	.0183826	23.03	0.000	.3873302	.4593924
niet (<500 omgevingsadressen/km2)	.6756777	.0186015	36.32	0.000	.6392175	.7121378
_cons	5.985958	.0139225	429.95	0.000	5.958669	6.013247
Invzafstandkdv						
1.younghh	-.0682045	.0191488	-3.56	0.000	-.1057374	-.0306716
1.elderly	.0241419	.0132378	1.82	0.068	-.0018049	.0500887
stedbuurt						
sterk (1500 tot 2500 omgevingsadressen/km2)	.4047576	.0181438	22.31	0.000	.3691947	.4403206
matig (1000 tot 1500 omgevingsadressen/km2)	.5811917	.0190529	30.50	0.000	.5438468	.6185365
weinig (500 tot 1000 omgevingsadressen/km2)	.7031082	.0195487	35.97	0.000	.6647915	.7414249
niet (<500 omgevingsadressen/km2)	1.04429	.0197815	52.79	0.000	1.005517	1.083063
_cons	5.627264	.0148057	380.07	0.000	5.598244	5.656284
Invzafstandtreinst						
1.younghh	-.0558806	.0179174	-3.12	0.002	-.0909998	-.0207614
1.elderly	.0184999	.0123865	1.49	0.135	-.0057784	.0427781
stedbuurt						
sterk (1500 tot 2500 omgevingsadressen/km2)	.2956019	.016977	17.41	0.000	.262326	.3288778
matig (1000 tot 1500 omgevingsadressen/km2)	.5822271	.0178277	32.66	0.000	.5472839	.6171704
weinig (500 tot 1000 omgevingsadressen/km2)	.9512154	.0182916	52.00	0.000	.9153628	.987068
niet (<500 omgevingsadressen/km2)	1.37706	.0185094	74.40	0.000	1.340781	1.41334
_cons	7.496825	.0138535	541.15	0.000	7.469671	7.523978



*Multivariate regression to find out if young households and elderly people live at the same distance from the three amenities, on average, but without the 0,1% top and bottom values to increase the reliability of the model

mvreg Invzafstandbasisond Invzafstandkdv Invzafstandtreinst = i.younghh i.elderly i.stedbuurt if
 inrange(vzafstandbasisond, 20, 5000) & inrange(vzafstandkdv, 10, 5000) & inrange(vzafstandtreinst,
 50, 40000)

Equation	Obs	Parms	RMSE	"R-sq"	F	P>F
Invzafstan~d	24,254	7	.6851752	0.0797	350.0812	0.0000
Invzafstan~v	24,254	7	.6927726	0.1588	762.6329	0.0000
Invzafstan~t	24,254	7	.8441981	0.2305	1210.689	0.0000

	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
Invzafstandbasisond						
1.younghh	-.0450646	.0143825	-3.13	0.002	-.0732552	-.016874
1.elderly	-.0038521	.0099395	-0.39	0.698	-.0233342	.0156299
stedbuurt						
sterk (1500 tot 2500 omgevingsadressen/km2)	.1869333	.0136647	13.68	0.000	.1601496	.2137169
matig (1000 tot 1500 omgevingsadressen/km2)	.2796478	.0143321	19.51	0.000	.2515559	.3077397
weinig (500 tot 1000 omgevingsadressen/km2)	.3734983	.0146986	25.41	0.000	.3446881	.4023085
niet (<500 omgevingsadressen/km2)	.6402137	.01494	42.85	0.000	.6109304	.669497
_cons	6.060254	.0111853	541.81	0.000	6.03833	6.082178
Invzafstandkdv						
1.younghh	-.0607555	.014542	-4.18	0.000	-.0892588	-.0322523
1.elderly	.0225676	.0100497	2.25	0.025	.0028695	.0422656
stedbuurt						
sterk (1500 tot 2500 omgevingsadressen/km2)	.3315793	.0138162	24.00	0.000	.3044987	.3586599
matig (1000 tot 1500 omgevingsadressen/km2)	.4906976	.014491	33.86	0.000	.4622942	.5191009
weinig (500 tot 1000 omgevingsadressen/km2)	.6061765	.0148616	40.79	0.000	.5770469	.6353061
niet (<500 omgevingsadressen/km2)	.960172	.0151057	63.56	0.000	.9305639	.98978
_cons	5.754727	.0113093	508.85	0.000	5.73256	5.776894
Invzafstandtreinst						
1.younghh	-.0533922	.0177206	-3.01	0.003	-.0881256	-.0186587
1.elderly	.019588	.0122464	1.60	0.110	-.0044156	.0435917
stedbuurt						
sterk (1500 tot 2500 omgevingsadressen/km2)	.3030581	.0168361	18.00	0.000	.2700582	.3360579
matig (1000 tot 1500 omgevingsadressen/km2)	.5857118	.0176585	33.17	0.000	.5511001	.6203236
weinig (500 tot 1000 omgevingsadressen/km2)	.9574931	.01811	52.87	0.000	.9219963	.9929898
niet (<500 omgevingsadressen/km2)	1.366554	.0184074	74.24	0.000	1.330474	1.402633
_cons	7.495911	.0137813	543.92	0.000	7.468899	7.522923



*Table of the average expected sales value of the house per COROP region

tabulate corop if younghh == 1, summarize(verkwaar)

tabulate corop if elderly == 1, summarize(verkwaar)

Corop indeling van huidige woonplaats	Summary of (8.22) Verkoopwaarde		
	Mean	Std. dev.	Freq.
oost-gron	227214	100962	14
delfzijle	159000	86631	5
overiggro	257787	105325	51
noord-fri	263438	133581	48
zuidwest-	232083	132673	12
zuidoost-	274352	124345	23
noord-dre	270303	101637	38
zuidoost-	253158	94959	19
zuidwest-	279121	106118	29
noord-ove	283315	84767	168
zuidwest-	325400	154955	15
twente	299240	184180	129
veluwe	318374	116384	107
achterhoe	298446	248803	56
arnhem/ni	295319	108227	119
zuidwest-	351530	154521	33
utrecht	365160	178351	394
kopvannoo	283167	95674	48
alkmaaren	301591	128428	22
ijmond	278750	77661	20
agglomera	399143	209512	21
zaanstree	329353	123320	17
groot-ams	424842	182446	152
hetgooien	372500	169820	18
agglomera	388019	132041	52
agglomera	310679	151381	106
delftenwe	354773	149312	44
oost-zuid	314674	130650	46
groot-rij	328083	181621	187
zuidoost-	266731	92207	65
zeeuwsch-	250818	95919	11
overigzee	269414	122028	58
west-noor	329982	283901	85
midden-no	336214	158823	98
noordoost	359692	162244	91
zuidoost-	354447	216650	103
noord-lim	272404	90095	52
midden-li	289679	82134	28
zuid-limb	259626	101578	87
flevoland	281038	152431	80
Total	321131	163936	2,751



Corop indeling van huidige woonplaats	Summary of (8.22) Verkoopwaarde		
	Mean	Std. dev.	Freq.
oost-gron	258818	101703	44
delfzijle	215773	72201	22
overiggro	312551	177022	136
noord-fri	271269	116830	143
zuidwest-	331253	226293	79
zuidoost-	340118	164503	93
noord-dre	354040	223390	113
zuidoost-	268890	104070	82
zuidwest-	379429	339876	63
noord-ove	355523	176797	370
zuidwest-	392762	295237	42
twente	340465	218755	370
veluwe	416940	236820	306
achterhoe	357937	198367	205
arnhem/ni	374418	176261	318
zuidwest-	399313	163117	91
utrecht	476467	257426	606
kopvannoo	332369	139008	157
alkmaaren	424785	289734	100
ijmond	404128	218259	86
agglomera	630805	399782	87
zaanstree	417365	179160	52
groot-ams	501955	322865	266
hetgooien	562476	353705	103
agglomera	454114	245653	176
agglomera	451046	320246	282
delftenwe	399688	229020	80
oost-zuid	386608	235503	130
groot-rij	361295	228794	380
zuidoost-	333654	183764	104
zeeuwsch-	290595	144338	83
overigzee	357526	199618	234
west-noor	396022	242898	267
midden-no	383283	214824	240
noordoost	405458	204621	288
zuidoost-	419704	243790	289
noord-lim	313957	118082	117
midden-li	298955	126990	110
zuid-limb	306223	181349	325
flevoland	329592	202809	169
Total	386726	236439	7,208



*Table of the possible wish to move soon

tabulate verhwens if elderly == 1

(18.1) Wilt u binnen twee jaar verhuizen	Freq.	Percent	Cum.
beslist niet	5,426	75.28	75.28
eventueel wel, misschien	1,381	19.16	94.44
zou wel willen, kan niets vinden	222	3.08	97.52
beslist wel	92	1.28	98.79
ik heb al een andere huisvesting/woning	87	1.21	100.00
Total	7,208	100.00	

*Table of the possible reason to move being health or need for care

tabulate tredenvh1 if elderly == 1

(18.21.1) Verhuisredenen - gezondheid of behoefte aan zorg	Freq.	Percent	Cum.
geselecteerd	1,029	58.57	58.57
niet geselecteerd	728	41.43	100.00
Total	1,757	100.00	

*Tables of descriptives of houses of young people

```
foreach var of varlist balktuin1-balktuin6 garcarp parkeer inttoe vhcac energieklaase twoning {
```

```
  tabulate `var' if younghh == 1
```

```
}
```

```
foreach var of varlist balktuin1-balktuin6 garcarp parkeer inttoe vhcac energieklaase twoning {
```

```
  tabulate `var' if elderly == 1
```

```
}
```

```
foreach var of varlist gebruiksopp opphfdwv kamers woonvrd aantalpp5 totwlv_rn {
```

```
  summarize `var' if younghh == 1
```

```
}
```

```
foreach var of varlist gebruiksopp opphfdwv kamers woonvrd aantalpp5 totwlv_rn {
```

```
  summarize `var' if elderly == 1
```

```
}
```



. do "C:\Users\thijs\AppData\Local\Temp\STD4870_000000.tmp"

```
. foreach var of varlist balktuin1-balktuin6 garcarp parkeer inttoe vhcaps energieklasse twoning {
2.   tabulate `var' if younghh == 1
3. }
```

(5.1.1) Buitenplaats - balkon	Freq.	Percent	Cum.
geselecteerd	749	27.23	27.23
niet geselecteerd	2,002	72.77	100.00
Total	2,751	100.00	

(5.1.2) Buitenplaats - tuin	Freq.	Percent	Cum.
geselecteerd	2,141	77.83	77.83
niet geselecteerd	610	22.17	100.00
Total	2,751	100.00	

(5.1.3) Buitenplaats - patio	Freq.	Percent	Cum.
geselecteerd	38	1.38	1.38
niet geselecteerd	2,713	98.62	100.00
Total	2,751	100.00	

(5.1.4) Buitenplaats - binnenplaats	Freq.	Percent	Cum.
geselecteerd	56	2.04	2.04
niet geselecteerd	2,695	97.96	100.00
Total	2,751	100.00	

(5.1.5) Buitenplaats - erf	Freq.	Percent	Cum.
geselecteerd	151	5.49	5.49
niet geselecteerd	2,600	94.51	100.00
Total	2,751	100.00	

(5.1.6) Buitenplaats - geen van deze	Freq.	Percent	Cum.
geselecteerd	66	2.40	2.40
niet geselecteerd	2,685	97.60	100.00
Total	2,751	100.00	

(5.2) Garage of carport	Freq.	Percent	Cum.
ja, garage (evt. met carport)	771	28.03	28.03
ja, carport	101	3.67	31.70
nee, geen van beide	1,879	68.30	100.00
Total	2,751	100.00	

(5.3) Soort partkeergelegenheid	Freq.	Percent	Cum.
ja, eigen terrein	299	15.91	15.91
ja, gemeenschappelijke parkeerplaats/pa nee	646	34.38	50.29
	934	49.71	100.00
Total	1,879	100.00	



(5.11) Woonkamer, keuken, sanitair, slaapkamer bereikbaar zonder traplopen	Freq.	Percent	Cum.
ja	714	25.95	25.95
nee	2,037	74.05	100.00
Total	2,751	100.00	

(5.12) Aanpassinge n voor handicap aanwezig	Freq.	Percent	Cum.
ja	69	2.51	2.51
nee	2,682	97.49	100.00
Total	2,751	100.00	

Energielebe 1 (RVO peildatum 1-1-2021)	Freq.	Percent	Cum.
A	564	24.52	24.52
B	294	12.78	37.30
C	589	25.61	62.91
D	312	13.57	76.48
E	264	11.48	87.96
F	157	6.83	94.78
G	120	5.22	100.00
Total	2,300	100.00	

(12.1) Tevredenheid met huidige woning	Freq.	Percent	Cum.
zeer tevreden	1,160	42.17	42.17
tevreden	1,408	51.18	93.35
niet tevreden, maar ook niet ontevreden	149	5.42	98.76
ontevreden	29	1.05	99.82
zeer ontevreden	5	0.18	100.00
Total	2,751	100.00	



```
. foreach var of varlist balktuin1-balktuin6 garcarp parkeer inttoe vhcac energieklaas twoning {
2.   tabulate `var' if elderly == 1
3. }
```

(5.1.1) Buitenplaats - balkon	Freq.	Percent	Cum.
geselecteerd	2,188	30.36	30.36
niet geselecteerd	5,020	69.64	100.00
Total	7,208	100.00	

(5.1.2) Buitenplaats - tuin	Freq.	Percent	Cum.
geselecteerd	5,896	81.80	81.80
niet geselecteerd	1,312	18.20	100.00
Total	7,208	100.00	

(5.1.3) Buitenplaats - patio	Freq.	Percent	Cum.
geselecteerd	236	3.27	3.27
niet geselecteerd	6,972	96.73	100.00
Total	7,208	100.00	

(5.1.4) Buitenplaats - binnenplaats	Freq.	Percent	Cum.
geselecteerd	352	4.88	4.88
niet geselecteerd	6,856	95.12	100.00
Total	7,208	100.00	

(5.1.5) Buitenplaats - erf	Freq.	Percent	Cum.
geselecteerd	876	12.15	12.15
niet geselecteerd	6,332	87.85	100.00
Total	7,208	100.00	

(5.1.6) Buitenplaats - geen van deze	Freq.	Percent	Cum.
geselecteerd	67	0.93	0.93
niet geselecteerd	7,141	99.07	100.00
Total	7,208	100.00	

(5.2) Garage of carport	Freq.	Percent	Cum.
ja, garage (evt. met carport)	4,028	55.88	55.88
ja, carport	494	6.85	62.74
nee, geen van beide	2,686	37.26	100.00
Total	7,208	100.00	

(5.3) Soort partkeergelegenheid	Freq.	Percent	Cum.
ja, eigen terrein	623	23.19	23.19
ja, gemeenschappelijke parkeerplaats/pa	752	28.00	51.19
nee	1,311	48.81	100.00
Total	2,686	100.00	



(5.11) Woonkamer, keuken, sanitair, slaapkamer bereikbaar zonder traplopen	Freq.	Percent	Cum.
ja	2,808	38.96	38.96
nee	4,400	61.04	100.00
Total	7,208	100.00	

(5.12) Aanpassinge n voor handicap aanwezig	Freq.	Percent	Cum.
ja	1,223	16.97	16.97
nee	5,985	83.03	100.00
Total	7,208	100.00	

Energielebe 1 (RVO peildatum 1-1-2021)	Freq.	Percent	Cum.
A	550	24.05	24.05
B	515	22.52	46.57
C	660	28.86	75.43
D	249	10.89	86.31
E	134	5.86	92.17
F	96	4.20	96.37
G	83	3.63	100.00
Total	2,287	100.00	

(12.1) Tevredenheid met huidige woning	Freq.	Percent	Cum.
zeer tevreden	4,548	63.10	63.10
tevreden	2,427	33.67	96.77
niet tevreden, maar ook niet ontevreden	200	2.77	99.54
ontevreden	23	0.32	99.86
zeer ontevreden	10	0.14	100.00
Total	7,208	100.00	



```
. foreach var of varlist gebruiksopp opphfdw kamers woonvrd aantalpp5 totwlv_rn {
2.     summarize `var' if younghh == 1
3. }
```

Variable	Obs	Mean	Std. dev.	Min	Max
gebruiksopp	2,751	114.4933	50.71251	18	887
Variable	Obs	Mean	Std. dev.	Min	Max
opphfdw	2,751	40.00145	22.38363	6	180
Variable	Obs	Mean	Std. dev.	Min	Max
kamers	2,751	4.509996	1.42056	1	12
Variable	Obs	Mean	Std. dev.	Min	Max
woonvrd	2,751	2.420938	1.169701	1	40
Variable	Obs	Mean	Std. dev.	Min	Max
aantalpp5	2,751	2.501999	1.105316	1	5
Variable	Obs	Mean	Std. dev.	Min	Max
totwlv_rn	2,742	1026.953	461.4152	-928.2523	6616.742

```
. foreach var of varlist gebruiksopp opphfdw kamers woonvrd aantalpp5 totwlv_rn {
2.     summarize `var' if elderly == 1
3. }
```

Variable	Obs	Mean	Std. dev.	Min	Max
gebruiksopp	7,208	147.038	90.72874	10	2485
Variable	Obs	Mean	Std. dev.	Min	Max
opphfdw	7,208	44.4076	21.98287	5	200
Variable	Obs	Mean	Std. dev.	Min	Max
kamers	7,208	4.814512	1.525374	1	28
Variable	Obs	Mean	Std. dev.	Min	Max
woonvrd	7,208	2.268313	.9164548	1	23
Variable	Obs	Mean	Std. dev.	Min	Max
aantalpp5	7,208	1.715871	.556519	1	5
Variable	Obs	Mean	Std. dev.	Min	Max
totwlv_rn	7,173	627.0956	370.0787	-1563.19	7097.54