

Stimulating Filtering Processes: Evaluating the addition of an intermediate rental segment for middle income households

Sjoerd Teunis Blok

4158261

TU Delft

Faculty of Architecture and the Built Environment

Management in the Built Environment

Graduation Lab: Housing Market Analysis

Graduation institution: Dudok Wonen

Mentors:

Harry van der Heijden

Gerard van Bortel

Dudok Wonen: Linda van de Lagemaat

Abstract

After the global financial crisis in 2008, new developments in the Dutch housing market halted, causing a deficit of available dwellings in the owner-occupied housing market. This in turn has increased the demand for rental housing, resulting in shortages in both the regulated as well as the unregulated rental housing segments. These shortages are most noticeable for lower and middle income households. The lack of supply for low income households sparked societal debate concerning skewed tenants, resulting changes in national housing policy. However, these regulations caused a further decrease in housing options for the middle income households.

As a result, regional residential visions established by municipalities active in Dudok Wonen's working area have since then had a strong focus on stimulating filtering processes: middle income households residing regulated rental dwellings should move, to make room for low-income households. To stimulate these filtering processes, housing association Dudok Wonen started to offer an intermediate rental segment (consisting out of ex-regulated rental dwellings) exclusively to middle income households, stating that the largest obstacle for the desired filtering processes is the lack of supply available to middle income households. Dudok Wonen assigned this intermediate rental segment '50-50' to starting and filtering middle income households. To examine the effect of this measure the following research question arose, to be answered in this thesis: *'How do the intermediate rental segment and associated housing allocation procedures which Dudok Wonen offers contribute to the desired filtering processes in the municipalities Gooise Meren and Hilversum?'*.

To answer this research question, the residential visions in Dudok Wonen's working area have been reviewed, and literature concerning the topic of residential mobility has been consulted. The selected research methods can be described as a mixed methods research, and involved a quantitative analysis of the available rental segments Dudok Wonen's working area, a structured web-survey distributed amongst and answered by 806 tenants in Dudok Wonen's regulated rental segment dwellings and 9 semi-structured interviews conducted with tenants of dwellings offered in Dudok Wonen's intermediate rental segment.

The quantitative analysis of rental segments was performed to examine whether the characteristics of intermediate rental segments intended for filtering households complied to the characteristics that Dudok Wonen had envisioned to trigger filtering. The intermediate rental segment dwellings were found to be larger than the regulated rental segment dwellings and to have a more beneficial price/quality ratio than unregulated rental segment dwellings, thereby complying to the goals set by Dudok Wonen. This research has also revealed that a majority of the middle income households residing in the regulated rental segment do desire to move, but that only a minority of these households is interested in the intermediate rental segment. The largest contributor to this lack of interest is the lack of knowledge concerning the segment, but the increase in price (compared to the regulated rental segment) and the lack of diversity in quality aspects in which the segment outranks the regulated rental segment are also culprits. The intermediate rental segment as offered by Dudok Wonen predominantly supplies moving triggers to households that are interested in larger dwellings. It is unlikely that households looking for other quality characteristics will be triggered to move by the addition of the intermediate rental segment.

Households that did move to the intermediate rental segment did so in order to have the option to realise (prospective) life-cycle related goals, like starting a family. Although these households were looking for rental dwellings, this preference is a substitute of their actual desire for owner-occupied housing. This substitution behaviour can be attributed to the contemporary housing market situation and regulations.

Despite this substitution behaviour, the intermediate rental segment, as it is currently being offered by Dudok Wonen, is contributing fairly well to stimulating the desired filtering processes in the municipalities Gooise Meren and Hilversum, as it supplies a portion of the middle income households residing in regulated rental dwellings with triggers to move. With the addition of the intermediate rental segment in the regional housing market, Dudok Wonen is stimulating the desired filtering processes not by pushing households to move, but by lowering the thresholds these households need to overcome in order to move. However, although the addition of the intermediate rental segment is beneficial for the desired filtering processes and the options middle income households have in the regional housing market, the associated housing allocation procedures negatively impact the supply available in the regulated rental segment. This report concludes by posing several recommendations for Dudok Wonen to consider, as well a point of critique towards contemporary Dutch housing policy.

Preface

Dear reader,

This graduation report is titled 'Stimulating Filtering Processes: Evaluating the addition of an intermediate rental segment for middle income households.' This report has been written to fulfil the graduation requirements of the master program 'Management in the Built Environment', offered at the faculty of Architecture and the Built Environment, Technical University of Delft. I was engaged in formulating the research question, conducting the research and writing this report from September 2017 to October 2018.

This research has been conducted for housing association Dudok Wonen, where I was able to undertake an internship. I personally formulated the research question for this report, with the help of my TU Delft mentors and the consultation of Dudok Wonen. Although the research was difficult at times, I was able to formulate a satisfying and complete answer to the posed research question with the help of my TU Delft mentors and many of Dudok Wonen's employees.

The subject of this graduation research concerns one of the efforts of housing association Dudok Wonen to stimulate filtering processes, and provide middle income households with appropriate housing options for middle income households in their working area. Dudok Wonen wants to fulfil this ambition by introducing an intermediate rental segment in the regional housing market, offered exclusively to middle income households. The selected research methods involved a quantitative analysis, in which rental housing segments in Dudok Wonen's working area have been compared, a structured web-survey, which has been sent to over 3000 households and has been responded to by over 800 households, as well as 9 semi-structured interviews, conducted with middle income households that have moved to the intermediate rental segment offered by Dudok Wonen.

In 2018, affordable housing for middle income households can be considered a hot topic in the Netherlands, with reports on quantitative and qualitative shortages and rising rental prices being featured in national news almost weekly. Although this particular research has a strong focus on Dudok Wonen's working area, I hope that either the outcomes of this research, or the selected research methods can better the contemporary Dutch housing market.

I hope that you enjoy reading this report!

Sincerely,

Sjoerd Teunis Blok, October 31st, 2018

Table of Contents

Abstract	2
Preface.....	4
1. Introduction.....	7
1.1 Dudok Wonen’s challenge in the regional housing market	8
1.2 Report structure	9
2. Context and Dudok Wonen’s ambition	10
2.1 Regional residential visions	10
2.2 The shortages in the region.....	14
2.3 Dudok Wonen’s efforts in the regional housing market	17
2.4 Summary: Context and Dudok Wonen’s ambition.....	20
3. Literature review: Residential mobility	21
3.1 The process of moving and the optimisation of ‘use’	21
3.2 Changing living preferences; career and life cycle theory	21
3.3 Introducing the career/life cycle model	22
3.4 The role of motives to move: primary vs. secondary action	23
3.5 Critique to the career/life cycle model	24
3.6 Constraints and limitations on the housing market.....	26
3.7 Synthesis: residential mobility.....	27
3.8 Literature review summary	29
4. Research Question and sub questions	30
5. Research Methods.....	31
5.1 Quantitative comparison of the rental segments	31
5.2 Social research methods	35
6. Analysis: the Price-quality assessment of the affordable unregulated rental dwellings	39
6.1 Comparing the regulated and the unregulated rental segments	39
6.2 Introducing the intermediate rental segment to the comparison.....	44
6.3 Differences between the three segments.....	49
6.4 Synthesis: comparing the different segments.....	52
6.5 The addition of an intermediate rental segment: implications for ‘skewed tenants’	52
6.6 Conclusion: the quantitative price/quality analysis	58
7. Analysis: the web-survey amongst social housing tenants.	60
7.1 Survey Results: a brief overview and representativeness of the responses.....	60
7.2 Does the intermediate rental segment trigger middle income households with to move?	61
7.3 The price/quality ratio: decisive for the desire to move?	64
7.4 Summary: the web-survey analysis.....	70

8	Analysing the interview results	72
8.1	Interview respondents: a brief overview	72
8.2	Why do households move to the intermediate rental segment?	72
8.3	What role did the price/quality ratios play in the decision to move?	74
8.4	The intermediate rental segment: an increase in place utility?	76
8.5	Were the middle income households looking for a rental dwelling?	79
8.6	conclusion: analysis of the interview results	80
9.	Conclusion	82
9.1	Conclusion and Recommendations	84
9.1.1	Recommendations for Dudok Wonen	85
9.1.2	Recommendations for Dutch housing policy	87
10.	Discussion	88
10.1	Most important findings	88
10.2	Inconsistencies, possible biases or limitations affecting results	90
10.3	Backing up the problem statements	93
10.4	The measure to which the main research question can be answered	94
10.5	Discussion of the posed recommendations	95
11.	Reflection	98
11.1	The relationship between this graduation subject and housing market analysis	98
11.2	The scientific relevance of this research	98
11.3	This graduation project and the wider framework	99
11.4	Ethical issues and dilemmas	100
11.5	The selected research methods	102
	Acknowledgements	105
	References	106
	Appendix A: Web enquête sociale huurders Dudok Wonen	109
	Appendix B: Structured web- survey: number of cases per block and routing consequences	131
	Appendix C: Identifying the middle income households in the survey results	132
	Appendix D: Recoded variables throughout the analysis	134
	Appendix E: Further substantiation of the T-tests	138
	Appendix F Analytical framework for the semi-structured Interviews	150
	Appendix G: Interview Guides: Filtering and starting households	154

1. Introduction

This master thesis is part of the master programme Management in the Built Environment, offered by the Faculty of Architecture at the TU Delft. This particular research proposal is connected to the Housing Market Analysis lab, which concentrates around research concerning the Dutch housing market, and involved an internship at housing association Dudok Wonen.

Recently, suitable housing for low and middle income households has become a hot topic in the public debate in the Netherlands. Average rental prices for dwellings in the entirety of the Netherlands have been rising, both inside and outside of larger cities. Numerous sources claim that there is a shortage in affordable rental dwellings, and that an increase in supply is needed, both in the regulated and unregulated rental segment. (NOS, 2017, 2018)

Housing association Dudok Wonen, active in the municipalities Gooise Meren and Hilversum, has noticed this increase in price and decrease in supply as well, and has started offering affordable dwellings in the unregulated rental segment, only for middle income households. With this supply of unregulated rental dwellings, they want to initiate filtering processes from the regulated to the unregulated rental segment, and give middle income households a 'real opportunity' in the regional housing market. This 'intermediate' supply of affordable unregulated rental dwellings is the subject of this master thesis, and is from here on referred to as 'the intermediate rental segment'.

According to Dudok Wonen, middle income households have a hard time in the contemporary Dutch housing market. This is the result of three recent developments:

1. A shortage of rental dwelling supply, caused by the lack of new developments after the Global Financial Crisis (GFC) which occurred in 2008. During and in the aftermath of this crisis, the construction industry was not producing enough dwellings. This lack of developments has resulted in a lack of supply in the owner-occupied housing segment, causing more and more households to opt for rental dwellings. This in turn has caused a deficit in the supply of rental dwellings. (Rijksoverheid, 2018)
2. Sharpened mortgage regulations, which, again, are a measure taken in response to the GFC in 2008. After the GFC, mortgage regulations have been sharpened to prevent home owners from having too much debt. These sharpened regulations have made mortgages (and owner-occupied dwellings) less accessible to middle income households.
3. Middle income households not being able to opt for a regulated rental dwelling, due to income restrictions. These restrictions are enforced to ensure that low income households receive a dwelling with a rent level which is suitable for their income level. (Aedes, 2017)

This means that only a small portion of the Dutch housing market is available to middle income households, in turn meaning that a) starting middle income households aren't able to find a suitable dwelling to start their housing career in, and b) middle income households currently residing in regulated rental dwellings cannot continue their housing career. But why should middle income households currently residing in regulated rental dwellings have to move? This has to do with the subsidized nature of regulated rental dwellings.

In the Netherlands, a general distinction is made between social rental housing, private rental housing and owner-occupied housing. In 2008, the Dutch housing market consisted out of 58% owner-occupied dwellings, 32% social rental dwellings and 10% private rental dwellings. The social and private rental housing stock is divided into regulated and unregulated rental dwellings, based on their basic rent level. The regulated rental dwellings are regulated by law through the Woning Waarderings Stelsel (WWS). In the WWS, points are assigned to rental dwellings based on quality aspects, which dictate

the maximum reasonable rent level which can be asked for rental dwellings. Rent levels up to €710,68 are regulated by the WWS. Beyond this point, rent levels are 'liberalised', meaning that they are dictated by market influences rather than the WWS point system. The €710,68 limit is called the 'liberalisation limit'. (Pittini & Laino, 2011)

Rental dwellings with a rent level below €710,68 are reserved for low-income or vulnerable households. This housing stock often features dwellings of which the rent level is lowered to make them suitable for low-income households. This form of subsidy is often done at the hand of housing associations. This subsidy is why middle income households residing in regulated rental dwellings need to move. While living in an affordable dwelling is not an issue, it is an issue when the dwelling is subsidized to be suitable for low-income households. Middle or higher income households residing in regulated rental dwellings are called 'skewed tenants' (scheefwoners). Skewed tenants are not a new phenomenon, and have been a part of the Dutch housing market for a long time. The reason why these skewed tenants are an issue at the present day are the aforementioned shortages, which the regulated rental segment also suffers from.

Housing association Dudok Wonen wants these skewed tenants to move to an unregulated rental dwelling, to make room for a low-income household in the regulated rental dwelling they leave behind. This process is often referred to as filtering. In an attempt to stimulate this filtering process, Dudok Wonen has started a pilot in which they are offering affordable unregulated rental dwellings for middle income households. We then come to the research question for this thesis:

How do the intermediate rental segment and associated housing allocation procedures which Dudok Wonen offers contribute to the desired filtering processes in the municipalities Gooise Meren and Hilversum?

1.1 Dudok Wonen's challenge in the regional housing market

Dudok Wonen's mission is to increase independence of households in the housing market. As a housing association, they deliver housing products to people who cannot afford a dwelling without financial help. They're convinced that, given time, most of their customers should be able to house themselves without any financial help, so they see their services as temporarily in principle. (Dudok Wonen, 2017a)

In their strategy document for '2017+', Dudok Wonen mentions a scarcity in the regional housing market. They state that in the regulated rental sector, demand surpasses supply, and that the unregulated rental sector is a 'tense market', in which demand far surpasses supply, influencing dwelling prices accordingly. When regarding the 'affordable' regulated rental sector, this tension in the market increases, as over 70% of the supply in the unregulated rental sector features rent levels which surpass €850 euros basic rent per month, while demand for affordable dwellings is much higher. (Dudok Wonen, 2017a, n.d.)

Dudok Wonen: a brief introduction

Working area:

Region: Gooi en Vecht

Municipalities: Hilversum and Gooise Meren (a merging of municipalities Laren, Muiden and Bussum)

Employees:

82 (31st of December 2017);

FTE: 76,4

Dwellings:

Rental: 6.328

Regulated: 5.105

Unregulated: 665

Other: 558

Owner-occupied: 1.602

The owner-occupied dwellings are offered in two forms, 'kopen naar wens' and 'koop goedkoop', which are offered through leasehold constructions, or with a loan supplied by Dudok Wonen. (Dudok Wonen, 2018)

In order to combat these scarcities, the municipalities in Dudok Wonen's working area want to 'improve dynamic' in the housing market. The performance agreements made with the municipality of Hilversum state that dynamic in the regional housing market should be improved, by increasing the filtering options within the social housing submarket, as well as options to filter from the social submarket to the unregulated market. Performance agreements with the municipality Gooise Meren are yet to be made, as the municipality is still fairly new. (Gemeente Hilversum, 2017)

This is the context in which Dudok Wonen has decided to start the pilot in which they are offering an intermediate rental segment, featuring affordable unregulated rental dwellings for middle income households, in order to improve the process of filtering and to offer middle income households a real opportunity on the housing market. They assign these dwellings '50-50', which means that half of the dwellings are offered to households residing the regulated rental market, while the other half is assigned to starters in the regional housing market. The issue for Dudok Wonen is that they are currently uncertain to what extent the intermediate rental segment is contributing to them reaching their goals. This is why this research has been conducted. (Dudok Wonen, 2017b)

1.2 Report structure

In chapter 2 of this report gives insight in residential visions and the contemporary housing market in Dudok Wonen's working area, as well as Dudok Wonen's vision, and their proposed solution: the intermediate rental segment. Why has Dudok Wonen opted for this instrument, and how should it supply the right households with triggers to move? After this, chapter three features a literature review regarding residential mobility, explaining why households move and what thresholds need to be overcome for them to be triggered to move. Chapter 3 concludes with the introduction of a conceptual model for residential mobility, based on the consulted literature. In chapter 4, the sub-questions that aid in answering the main research question are introduced. These sub-questions are elaborated upon in chapter 5, which also presents the three selected research methods. The following three feature a description of the analyses connected to the research methods. Chapter 6 features the analysis of the quantitative comparison of the regulated, intermediate and unregulated rental segments, and will shed light on how suitable the intermediate rental segment is for Dudok Wonen's goals. In chapter 7, the analysis of the web-survey distributed amongst tenants of Dudok Wonen's regulated rental dwellings is introduced, which results in valuable insight regarding whether the middle income households residing in the regulated rental segment are interested in the intermediate rental segment. Chapter 8 describes the analysis of the interview results: Why did these households move to the intermediate rental segment, and are they satisfied with their relocation?

Chapter 9 features a brief summary of the main findings, as well as the conclusion, in which the main research question is answered. This chapter concludes with recommendations for Dudok Wonen, and some critique on contemporary Dutch housing policy. This chapter is followed by chapter 10, which features a discussion. This chapter starts by explaining the most important findings, and what results were unexpected or inconsistent with the established theory regarding residential mobility. It also discusses to what extent the results of this research can back up the problem statement, and to what extent the findings can be used to give a complete and comprehensive answer to the main research question. This chapter concludes with recommendations for future research regarding this subject. Chapter 11, the final chapter of this report, features a reflection which discusses the relation between this graduation subject and the graduation lab 'housing market analysis', the scientific relevance of this research, what the results of this entail for the wider framework and what ethical issues and dilemmas have been encountered during the research. It concludes with a reflection on the selected research methods. Why were they chosen, and how did they work out?

2. Context and Dudok Wonen's ambition

In this chapter, some light is shed on the context in which Dudok Wonen is operating.

The first part of this chapter, 2.1, concerns regional residential visions and how they have been established. What are the residential visions in Dudok Wonen's working area, and what target groups should be focussed on, and why? How do the municipalities in Dudok Wonen's working area think the target groups should be served, and what instruments do they think need to be used to solve the issues in the regional housing market? And finally, what agreements have been made between Dudok Wonen and the municipalities in Dudok Wonen's working area?

In section 2.2, the established shortages in the regional housing market are discussed. What shortages have been found in Dudok Wonen's working area, and what do these shortages implicate for the target groups mentioned in the aforementioned residential visions and agreements?

Finally, section 2.3 introduces Dudok Wonen's vision and ambitions concerning the regional housing market. What do they think needs to be done, and why is the addition of an intermediate rental segment an appropriate solution?

2.1 Regional residential visions

Dudok Wonen's working area (see figure 1) is situated in the region Gooi en Vecht. Their housing stock is predominantly found in the municipalities Hilversum and Gooise Meren, with only a negligible number of dwellings in other municipalities. Together, these municipalities make up about 145.000 inhabitants, of which 89.000 can be found in Hilversum, and 56.000 can be found in Gooise Meren. The number of inhabitants in the region is expected to grow until at least 2040. To cope with the expected growth in inhabitants in the region, municipalities and partnerships between these municipalities solidify their residential ambitions in certain policy documents. These ambitions are then used to establish performance agreements with major actors in the regional housing market, such as housing associations. How this process works is explained below. (Regio Gooi en Vechtstreek, n.d.)

Dutch housing policy

Housing policy in the Netherlands has a layered structure, in which the national, provincial, regional and municipal government institutions play a role. This role is established both formally (through the Housing Act, Huisvestingswet, and aanwijzingsbevoegdheden), but often also informal through collaboration and exchange of knowledge. The layered structure differs per province, the structure for the province of North Holland is shown in figure 2, found below. The national residential vision is established by the cabinet, and is leading for the provincial housing vision. The province of North Holland then translates this vision into a regional action programme (RAP), which is used to establish housing regulations for smaller regions. Municipalities use these housing regulations to develop a local

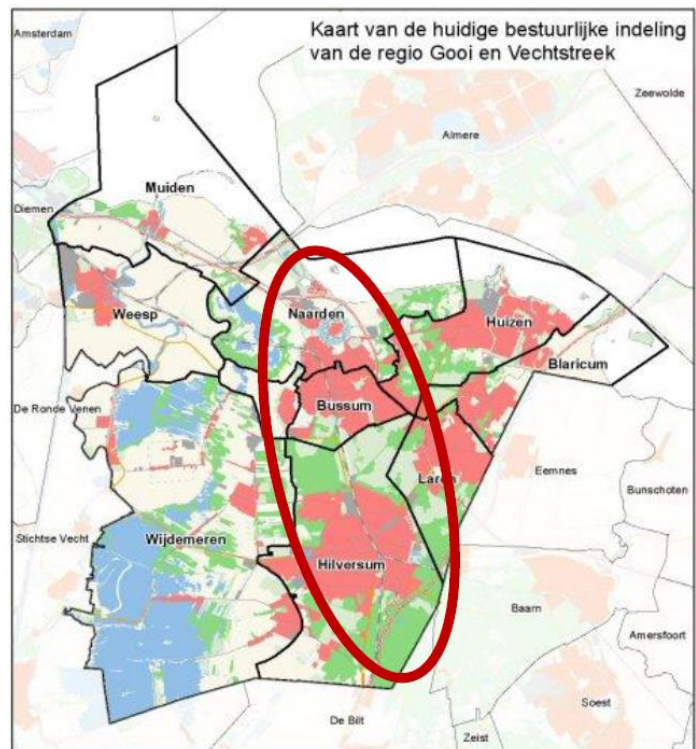


Figure 1: Dudok Wonen's working area (Dudok Wonen, 2018)

residential vision. The residential visions are eventually laid down in performance agreements, which are drawn up in collaboration with major actors (such as developers, housing associations and tenant associations) in the regional housing market. (Gemeente Gooise Meren, 2017)

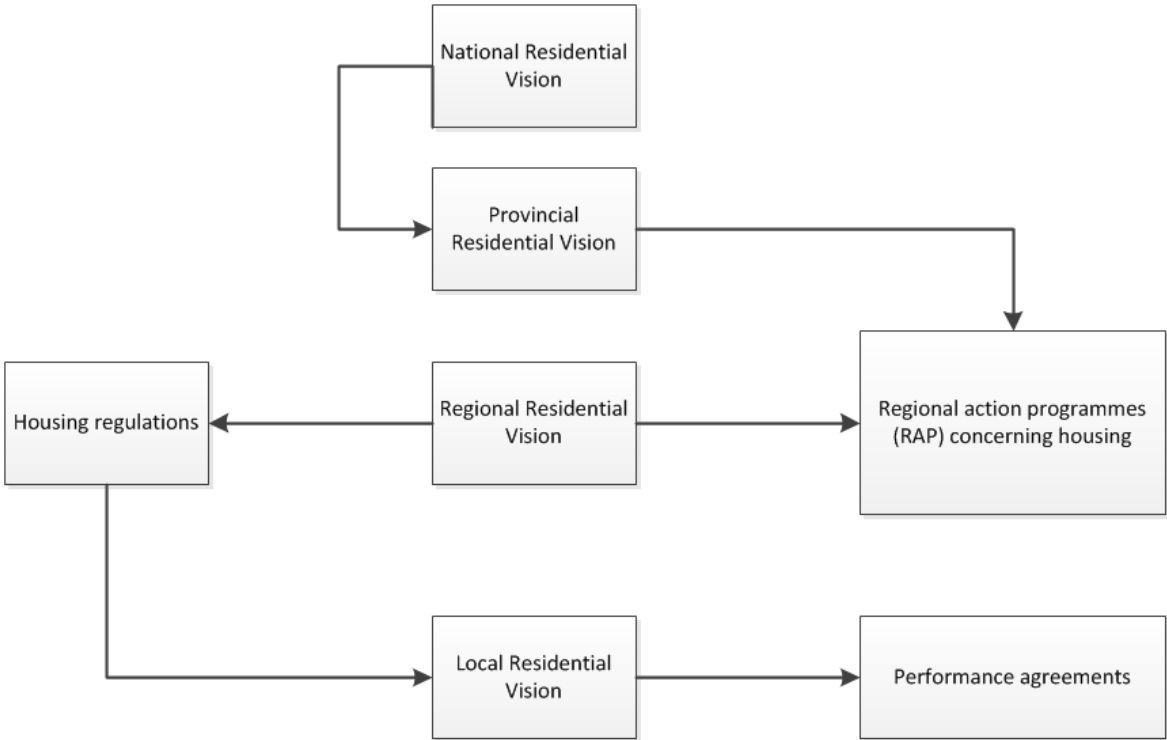


Figure 2: Structure of housing policy and placement of the performance agreements in North Holland, as well as the residential visions on regional level and municipal level (adaptation of an image found in Woonvisie Gooise Meren 2017-2025) (Gemeente Gooise Meren, 2017)

The national residential vision is established by the cabinet, and is leading for the provincial housing vision. The province of North Holland then translates this vision into a regional action programme (RAP), which is used to establish housing regulations for smaller regions. Municipalities use these housing regulations to develop a local residential vision. The residential visions are eventually laid down in performance agreements, which are drawn up in collaboration with major actors (such as developers, housing associations and tenant associations) in the regional housing market. Following the structure described in figure 2 above, first the national residential vision is discussed, followed by the provincial residential vision and the RAP that’s resulted from this. Next, the regional residential vision is explained, followed by the local residential vision, drawn up by the municipalities. The performance agreements which are the result of the local residential visions are explained afterwards. (Gemeente Gooise Meren, 2017)

In their coalition agreement, cabinet Rutte III states that the GFC in 2008 greatly impacted the housing market, the development of new dwellings and the capacity of the construction industry. Now, in a time in which the Dutch economy is recovering, the demand for dwellings has grown. More dwellings of reasonable quality are needed, which fit the financial capacity and contemporary housing preferences of people. More affordable unregulated rental dwellings need to be realised. The province of North Holland does not focus on affordable unregulated rental dwellings, but has set the goal to provide ample dwellings in an attractive environment and a fitting quality. In 2020, all consumers should be able to choose their desired dwelling, within their budget. To realise this, they want to

improve the supply and demand ratio in the housing market. (Noord-Holland, 2010; Rijksoverheid, 2017)

RAP: Region Gooi en Vecht

The RAP for region Gooi en Vecht has been created in order to be able to execute the provincial residential vision in the region. In the RAP, there is a focus on the ratios between supply and demand in the regional housing market. The region Gooi en Vecht is described as a link between important housing market regions in the Netherlands. Because the region fulfils this role, the housing market in the region is under pressure, which can lead to scarcities for vulnerable target groups. In the RAP, the target groups which need most attention are described as young households and households that need special health care. These target groups need more opportunities in the regional housing market. To create more opportunities for these households, it is important to create more dynamic in the regional housing market. One of the main instruments for this is the creation of more suitable supply in the lower end of the middle segment, making it possible for middle income households to filter from the regulated to the unregulated rental segments. (Regio Gooi en Vechtstreek, 2017)

Regional residential vision: Region Gooi en Vecht

Regio Gooi en Vechtstreek is a partnership of seven different municipalities in the Gooi en Vechtstreek; Blaricum, Gooise Meren, Hilversum, Huizen, Laren, Weesp en Wijdmeren. The region is positioned between important housing market regions, in which the pressure on the housing market is expected to be significant in the coming years. Because of this pressure, the municipalities in this partnership have agreed that starters, young families, and people with healthcare needs should receive extra attention when it comes to the availability of suitable housing. Next to this, this municipality states that it is of utmost importance to create the appropriate moving chains in the local housing market, as the larger the moving chain, the more households will have the possibility to move to adequate housing. To do this, supply in the low middle segment needs to grow, making it possible for people to filter from the social rental submarket to the unregulated market. In fact, when stating their key ambitions for the regional housing market, the very first ambition mentioned is stimulation of filtering in their region. (Regio Gooi en Vechtstreek, n.d.)

Creating this dynamic in the social housing market is not a goal by itself, but a mean used to ensure that as many people as possible can live in a suitable dwelling. In the region, they notice that the rental and owner-occupied housing segments operate as two different markets, due to high dwelling prices in the owner occupied segment and the absence of an intermediately priced rental segment. These factors make it difficult to move from the social rental sector to the unregulated rental or owner-occupied segment. Removing these obstructions will improve the filtering processes in their region. They claim regional allocation of the social housing stock solves this issue partly, as it improves peoples chances on finding suitable housing because more options will be available to people looking for dwellings. (Regio Gooi en Vechtstreek, n.d.)

Local residential vision: municipality of Hilversum

The municipality of Hilversum states in their residential vision that in the city of Hilversum, there is a structural deficit of dwellings for the middle income households. These are households with an income ranging from €35.399 to €43.000 (price level 2016). This group is partly housed in the regulated rental segment of the housing stock. Households with middle incomes can face rises in rental prices, while moving to another dwelling or segment of the housing market is only possible if appropriate and affordable supply is present. These middle income households are not eligible for dwellings in the regulated rental sector, while there is a very limited supply of middle-expensive unregulated rental dwellings (with rent levels ranging between €710,68 to €900 (price level 2017)). This shortage limits

their abilities to move out of their regulated rental dwelling. On top of that, the opportunities for this group are limited in the owner occupied segment, particularly due to the sharpened mortgage requirements. (Gemeente Hilversum, 2016)

The middle income households which are now housed in the regulated rental dwellings should be able to move out of these dwellings, in order to make room for households which need a regulated rental dwellings. The lack of adequate supply for middle income households is the largest obstruction for the creation of moving chains in the Hilversum housing market. This is why the municipality of Hilversum wants to create supply in the €710,68 to €900 range in the rental market, and affordable owner occupied dwellings, as this is what most households prefer. (Gemeente Hilversum, 2016)

Local residential vision: municipality of Gooise Meren

The municipality of Gooise Meren states that not everyone has equal opportunities in the regional housing market. The lower and especially the middle income households deserve extra attention, as these target groups have a hard time in the regional housing market. The middle income households are emphasized here because they do not qualify for social dwellings, while supply in the unregulated rental or owner occupied market is limited. In order to be able to house households correctly, the municipality of Gooise Meren wants to offer enough and appropriate dwellings. Where possible, they want to promote the filtering process and initiate moving chains. New developments should provide appropriate dwellings. The ratios of the new developments should be 1/3rd affordable (owner occupied dwellings up to €180.000, rent levels up to the subsidy limit), 1/3rd 'middle-expensive' (owner-occupied dwellings price range from €180.000 to €350.000, and rental dwellings up to €850 per month) in order to give households the opportunity to move out of their regulated rental dwelling (if possible), and to give starting households a chance at finding a suitable dwelling. Price levels here are from 2017. (Gemeente Gooise Meren, 2017)

Performance agreements

The residential ambitions of municipalities are laid down in the form of multilateral performance agreements, which are established through a cooperative process between the municipality, housing associations and tenant associations. The municipality Gooise Meren, however, does not have these performance agreements as of yet, as it has only been established in 2016. However, performance agreements were made in the municipality of Hilversum, which entails framework agreements which should last until 2020. The central ambition in the performance agreements is to have suitable and affordable dwellings for social target groups in the municipality. The suitability of dwellings should be the main priority, followed by affordability. The dwellings and their neighbourhoods need to be of quality, sustainable and fitting to the inhabitants' life stage. (Gemeente Hilversum, 2017)

In the performance agreements, it is stated that the supply of social housing should minimally stay the same, and, if possible, should grow slightly. Next to this, there should be an increase in dynamic in the regional housing market, which must be realised by improving the filtering options within the social housing submarket, as well as options to filter from the social submarket to the unregulated market. Within the regulated rental segment, the need to initiate moving chains is highest. More dwellings should be made available to the primary target group, which should be done through the realisation of strategic developments. If there is land available to build on, candidates currently residing in regulated rental dwellings should be appointed to move into these newly constructed dwellings. Next to this, these performance agreements state that housing associations should expand their amount of dwellings in the unregulated rental sector, in order to improve filtering from the social segment of the market to the unregulated segment. (Gemeente Hilversum, 2017)

Summary: residential visions

Dudok Wonen has made performance agreements with the municipality of Hilversum. This performance agreement is based on the municipality's residential vision, which in turn has been based on the residential visions of other governmental institutions and partnerships formed between the government institutions and other important actors on the housing market.

In the residential visions, government institutions and partnerships that the highest shortages in the regional housing market are found in the lower end of the regulated sector, and the lower end of the unregulated sector. These shortages influence the options middle income households, starting households and vulnerable households have in the regional housing market. To better serve these target groups, both municipalities Gooise Meren and Hilversum want to improve the dynamic on the housing market. This should be done by adding more supply in the lower end of the unregulated rental segment. The lack of supply in lower end of the unregulated rental sector is seen as an obstruction to the filtering process, as households which currently reside in regulated rental dwellings do not have suitable options to move to. The addition of dwellings in the lower end of the unregulated rental market is seen as a solution to both shortages, as it is assumed that the addition of these dwellings will trigger filtering processes, in which households will move from the regulated dwellings to the unregulated dwellings.

Dudok Wonen has agreed that this is a solution to the issues in the regional housing market, and has signed a performance agreement with the municipality of Hilversum. By signing this performance agreement, Dudok Wonen has agreed to commit to the following ambitions:

- The supply of regulated rental dwellings should minimally stay the same, and, if possible, grow slightly.
- There should be an increase in dynamic in the regional housing market, which must be realised by improving the filtering options within the social housing submarket, as well as options to filter from the social submarket to the unregulated market

In the next section, the manner in which these shortages have been established is explained.

2.2 The shortages in the region

The shortage of the supply for the middle income households is established by RIGO in their report 'Meer zicht op betaalbaarheid' (2013), which features a research which has been commissioned by the Regio Gooi en Vechtstreek partnership. RIGO starts with defining the target groups. Doing so, they make a distinction between the primary target group, the secondary target group and the middle income households. These target groups' income levels are explained in table 1 below. (Kromhout & Zeelenberg, 2013)

RIGO then establishes what 'affordable housing' is for these target groups. To do this, they use information supplied by the Nibud institute. The Nibud institute is the National Institute for Budget information, which checks what households pay for services in their day to day life. Based on these figures, they are able to tell what households can pay for certain commodities, including housing. The information provided by Nibud can be seen in table 1, found below. (Kromhout & Zeelenberg, 2013)

	Nibud rent level advice	Maximum mortgage
Primary target group Households that, based on their income level and	Social assistance benefit level: limited to quality discount limit kwaliteitkortingsgrens): €374	1 person (€21.025): max. €76.150

equity are eligible for rent allowance	Maximum income for this target group, limited by rent allowance limit (huurtoeslaggrens): €681	>1 person (€28.550): max. €122.800
Secondary target group Households that are not part of the primary target group, and have a taxable income of up to €34.229	Single households: €529 - €768	1 income: max. €147.200
Middle income households Households with a taxable income between €34.229 and €43.758	Single households: €768 - €999	Max. €188.300

The next step for RIGO was to check which percentage of households looking for a dwelling fell in which target group. These are households which have stated that they want to move to or within the region Gooi en Vechtstreek. RIGO used the WoON 2012 to do this. They conclude that almost a quarter of households looking for housing in the region Gooi en Vechtstreek belong to the primary target group (3.300 households), 12% of the house hunters belong to the secondary target group (1.575 households), and 10% of the house hunters are middle income households, which amount to 1335 households per year. Rigo then analysed the supply which was on the market at the time. They did this for the rental market, as well as the owner-occupied market. (Kromhout & Zeelenberg, 2013)

The rental market

The rental market supply which RIGO has found during their research is to be seen in table 2 below. It is important to note that the number of dwellings available to the secondary target group includes the dwellings which are available to the primary target group, as they too can apply for dwellings which are suitable for the primary target group. Next to this, RIGO was not able to use information concerning the private rental segment, as this information was not available to them. As such, this information only regards the rental dwellings which are offered by housing associations.

	Supply suitable rental dwellings	House hunters per year
Primary target group	92* 1.458	3.300
Secondary target group	1.680	1.575
Middle income households	394	1.335

*The 92 dwellings are dwellings which are suitable for households whose only income is the social assistance they receive.

Seeing table 2, it becomes clear that the demand is larger than supply. RIGO uses this information to conclude that the primary target group and the middle income households are facing the largest shortages in terms of supply, followed shortly by the secondary target group.

The owner occupied market

Shortages in the rental housing market would not be an issue if the owner-occupied market is accessible to these target groups. To check if this is the case, RIGO has also analysed the owner occupied market. The results can be seen in table 3 below.

	Maximum mortgage	Dwellings available in price class (total)	House hunters in price class per year
Primary target group	1 person (€21.025): max. €76.150	47	3.300
	>1 person (€28.550): max. €122.800	295 (342)	
Secondary target group	1 income: max. €147.200	278 (620)	1.575
Middle income households	Up to €188.300	349 (969)	1.335

For the primary target group, the owner-occupied market is almost unreachable. There are almost no dwellings which are affordable with the maximum mortgage they can receive. For the secondary target group, 620 owner occupied dwellings were offered which fit this target group's maximum mortgage, while the middle income households had 969 dwellings to choose from. It should be kept in mind, though, that this number overlaps with the owner-occupied dwellings which are available to the primary and secondary target groups. The owner occupied sector in the Gooi en Vecht region doesn't have a lot to offer for low and middle income households. 65% of the total supply features a price which is higher than €350.000, and affordable dwellings are most found in the municipalities of Weesp and Hilversum. (Kromhout & Zeelenberg, 2013)

RIGO's conclusion

RIGO concludes that out of the three target groups, the secondary target groups have the most options in the regional housing market, but that there still is a shortage even for this group. For the primary target group, there are the least amount of options in the housing market. On top of this, the primary target group is also facing competition from the secondary target group when it comes to the dwellings which are suitable for them, as the secondary target group is also eligible to reside in these dwellings. Middle income households also do not have a lot of options according to RIGO, as most of the rental dwellings which are featured in this analysis are off-limits for them due to their income level. However, it should be kept in mind that their analysis of the rental market only included dwellings owned by housing associations, and that actual supply of rental dwellings suitable for middle income households is probably higher than presented here. Most important is that this analysis shows that shortages in the rental housing market aren't outweighed by owner-occupied dwellings. Had there been plenty of supply in the owner occupied segment, shortages in the rental segment would not have been an issue.

Finally, it should be noted that even though municipal and regional residential visions still are based on the results shown above, this analysis has been done quite some time ago. The research done by RIGO was executed in 2013, while the data they used has been gathered in the years before that. This could mean that the conclusions RIGO has come to are skewed due to the GFC. However, the fact that these shortages are still accounted for in residential visions shows that the issue still plays a role, albeit in policy documents. Still, it would be a good idea to see if the shortages in the region can be identified in this research.

Summary: the regional housing market

It appears to be so that there are indeed shortages in the regional housing market, and that the municipalities in Dudok Wonen's working area think that the initiation of moving chains, filtering

processes along with the creation of more supply are solutions to control the shortages in their region. Dudok Wonen has agreed that creating more dynamic in the regional housing market is a solution to the issues in the regional housing market, and has signed a performance agreement with the municipality of Hilversum. By signing this performance agreement, Dudok Wonen has agreed to commit to the following ambitions:

- The supply of regulated rental dwellings should minimally stay the same, and, if possible, grow slightly.
- There should be an increase in dynamic in the regional housing market, which must be realised by improving the filtering options within the social housing submarket, as well as options to filter from the social submarket to the unregulated market

Filtering processes should be initiated to have households move from the regulated rental segment to the unregulated rental segment, in order to create supply for the primary target group in the regulated rental segment while creating supply in the unregulated rental segment. How does Dudok Wonen plan to do this?

2.3 Dudok Wonen's efforts in the regional housing market

Dudok Wonen has agreed to commit to the following ambitions, in order to better serve the target groups that are hit hardest by the shortages in the regional housing market. Dudok Wonen wants more households to be housed appropriately according to their income level and, like the municipalities in their working area, they believe this should be done through the initiation of filtering processes. The idea behind this is that if a household which wants to move from their regulated rental dwelling into an unregulated rental dwelling can do so, an opportunity opens up for another household to start in the regulated rental segment. Through this mechanism, these filtering processes can potentially lessen the aforementioned pressure in two segments of the housing market; the unregulated rental segment and the regulated rental segment.

They want to realise these processes without making concessions in serving their primary target group. In the light of this ambition, Dudok Wonen has created the intermediate rental segment, with which they offer unregulated rental dwellings with a maximum basic rent level of €850, exclusively to middle income households. This intermediate rental segment is created by subtracting dwellings from the regulated rental segment. It is supposed to stimulate the desired filtering processes, next to offering 'real opportunities' for starting middle income households. As such, the dwelling should be at an appropriate price level, as well as an appropriate quality level for starting middle income households. The intermediate rental segment is assigned '50-50', meaning that 50% of the dwellings found in this segment are assigned to households that move from the regulated rental segment, and 50% is assigned to starting households. (Dudok Wonen, n.d.)

The filtering process should not only be initiated to help relieve scarcities, but trigger middle income households currently residing in the regulated rental segment to move. Currently, these tenants can face income dependent raises in rent levels, an instrument which has become available to housing associations with the Housing Act 2015. However, Dudok Wonen describes this measure as a 'push trigger', and states that, as long as there is no supply in the lower end of the unregulated rental segment for these households to move to, this measure will not be effective in getting more households to move. Here Dudok Wonen is referring to the shortages which have been found in the regional housing market: Raising skewed tenants' rental prices will only be an effective instrument if the middle income households can find appropriate options to move to. (Zanting & Wezel, n.d.)

Another reason why Dudok Wonen finds that this instrument is ineffective is due to the fact that rent levels in the unregulated segment of the housing market are much higher than in the regulated rental segment. This is illustrated in figure 3 below, in which dwellings found in the regulated and unregulated rental segment are plotted based on their floor space and rent level. The red dots represent regulated dwelling rent levels and corresponding dwelling size, while the blue dots are the rent levels and corresponding dwelling size in the unregulated sector. What's noticeable is that across the entire board, rent levels in the unregulated rental sector are higher than in the regulated sector. For the larger dwellings this makes sense, as the rent levels in the regulated sector are capped at €710, but apparently this is also the case for the smaller dwellings. Dudok Wonen states that in order to effectively increase the filtering options in their working area, 'pull triggers' are needed. (Zanting & Wezel, n.d.)

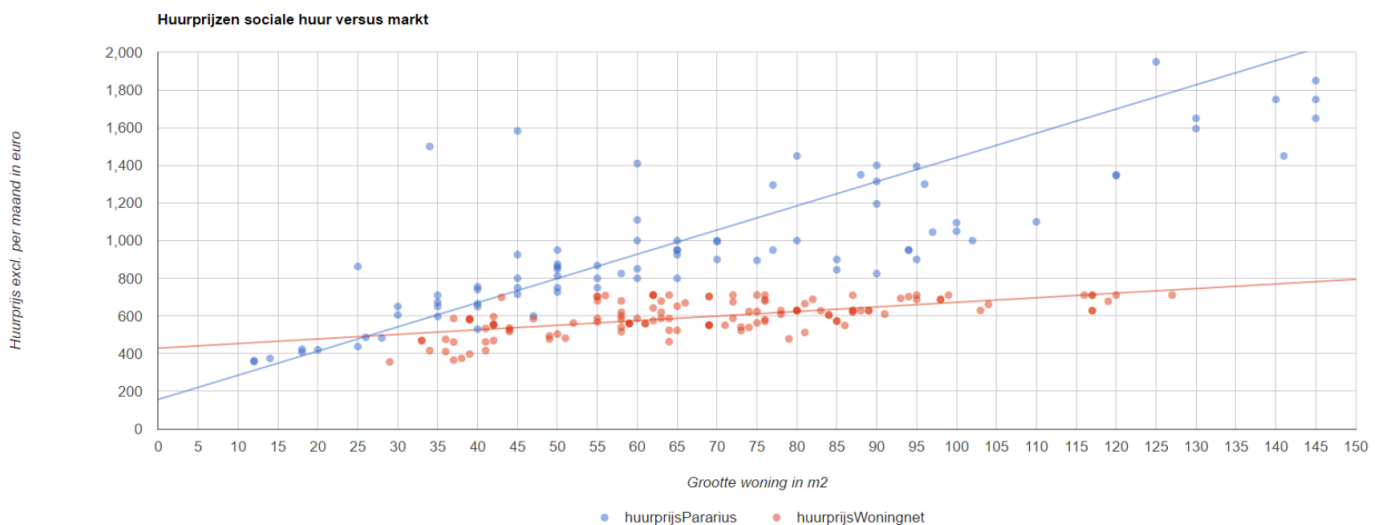


Figure 3: rent levels found in the regulated rental segment (red) versus those found in the unregulated rental segment (blue) in the region Gooi en Vecht (Zanting & Wezel, n.d.)

They support this statement with an example household with a middle income of €45,000. This household currently resides in a 100 m² regulated rental dwelling with four rooms, with a rent level of €650. They state that based on their numbers, in the unregulated sector, €1,400 euros is the expected passing rent for a comparable dwelling. This household would face the following triggers designed to make them move to the unregulated rental sector; (Zanting & Wezel, n.d.)

The income dependent raise in rent level will make the rent for this household too high, making them want to move. Assuming the household has a yearly income of €45,000, this makes for a gross monthly income of about €3,700 euros, giving a net income of about €2,500. An often used rule of thumb is that the acceptable rent level for any household is below a quarter of the gross monthly income. This gives a maximum rent level of €975. Given the maximum rent raise with the new law (4%), it will take 9 years before this maximum is reached. Meanwhile, in the unregulated rental sector offers a 60 m² dwelling for this price. As a result, this trigger will not be effective to make the household want to move in a short term. In the same line of reasoning, it will take even longer before the rent level will surpass the rent levels in the unregulated segment. (Zanting & Wezel, n.d.)

Furthermore, there also are no options in the owner-occupied market. The average asking price for dwellings in the neighbourhood of Hilversum is €2,700 per square meter. The example household from last paragraph can get a €208,000 loan in case they would want to buy a dwelling. This would give them a dwelling of 75 m², giving them less space than they had, and will not supply the trigger to

move. Dudok Wonen does not think that it's plausible that a lot of households will move from the regulated rental sector to the owner occupied sector this way. This line of reasoning has led to Dudok Wonen's idea that instead of push triggers like the income dependent raises in rent level, pull triggers should be used to supply households with a trigger to move. (Zanting & Wezel, n.d.)

The pull trigger which Dudok Wonen envisions are unregulated rental dwellings with an attractive price/quality ratio for middle income households. When a middle income household, currently residing in the regulated rental sector notices they can rent a dwelling which is a closer approximation of their preferences, they will experience a trigger to move. Dudok Wonen wants to provide an option in the unregulated rental dwelling which is a 'step up' in quality, while it still is affordable, in order to trigger households to move out of the regulated rental segment. How this works out is illustrated in figure 4 below. (Zanting & Wezel, n.d.)

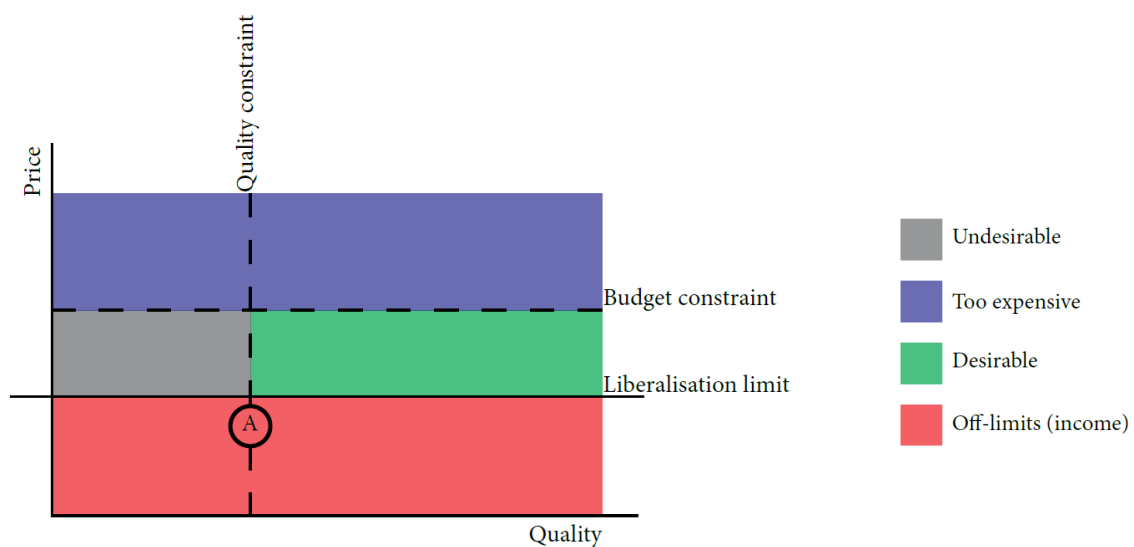


Figure 4: Housing options for middle income household A in terms of price/quality (own image, based on Zanting & Wezel, n.d.)

The image is supposed to be seen from the perspective of household A, currently residing in a regulated rental dwelling. The income level of household A is too high for the household to be eligible to move to another regulated rental dwelling which is indicated by the line marked 'liberalisation limit'. Dwellings below this limit are off limits for household A. The dashed horizontal line is the budget constraint, which divides the regulated rental dwellings into two sections; one which A can afford to live in (grey and green), and dwellings which are too expensive (blue) for A to be an option to move to.

In the grey and green area (the dwellings which A can afford), a further distinction is made, which is displayed in the form of the vertical dashed line. This is the quality constraint. According to Zanting and Wezel (n.d.), households will only experience a trigger to move if the quality level of the moving option is higher than their former dwelling. Attractive options for A are found in the green area, while options in the grey area, with a lesser quality, but a higher rental price, will not supply A with the trigger to move.

The research performed by Zanting & Wezel has formed the basis for Dudok Wonen to start offering the intermediate rental segment. It also sets some boundary conditions for the dwellings which should be offered in this manner, as they should be of higher quality than the dwellings found in the regulated rental segment, and be more affordable than the dwellings found in the unregulated rental segment. If this isn't the case, households like household A in the image above, would not be triggered to move.

Another boundary condition is formed by Dudok Wonen's vision. Dudok Wonen expects their services to be of temporary nature, as they do believe that given time, any household should be able to house themselves without any support. This means that when households opt to move to one of the discounted unregulated rental dwellings which Dudok Wonen offers, the same trigger would make them eventually want to move an undiscounted dwelling which will offer a better price/quality ratio.

Dudok Wonen has set the goal to provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment. Households that have moved to a dwelling in the intermediate segment should find that their dwelling is better than the dwelling they resided in in the regulated rental segment, but they should still experience triggers to continue their housing career.

2.4 Summary: Context and Dudok Wonen's ambition

The highest shortages in the regional housing market are found in the lower end of the regulated rental segment, and the lower end of the unregulated rental segment. The target groups that suffer from these shortages the most are low income households and middle income households. This is due to the fact that the supply of suitable dwellings for these target groups is minimal, and the fact that these target groups are facing a lot of competition for the dwellings which are suitable for them. The municipalities in Dudok Wonen's working area believe that an increase in dynamic in the regional housing market is a solution for both these target groups. Supply in the lower end of the regulated rental segment should be expanded, so that middle income households residing in housing which is suitable for lower income households are able to move. This way, supply for both target groups is expanded. This ambition has been solidified in performance agreements, which state that:

- The supply of regulated rental dwellings should minimally stay the same, and, if possible, grow slightly, and
- There should be an increase in dynamic in the regional housing market, which must be realised by improving the filtering options within the social housing submarket, as well as options to filter from the social submarket to the unregulated market.

Dudok Wonen has agreed to commit to these performance agreements, but believes that the instruments which are available to them will not be effective. Instead, they state that the desired dynamic can be stimulated by adding an intermediate rental segment into the regional housing market. Next to this, this segment should also offer 'real opportunities' to starting households in the regional housing market. The idea behind this is that if a household which wants to move from their regulated rental dwelling into an unregulated rental dwelling can do so, an opportunity opens up for another household to start in the regulated rental segment. Dudok Wonen wants middle income households currently residing in regulated rental dwellings to move to the unregulated rental segment. This intermediate rental segment should provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment. To find out more about why households move, what thresholds they need to overcome and where triggers to move come from, literature regarding residential mobility has been consulted. The next chapter features literature review.

3. Literature review: Residential mobility

A classic definition of residential mobility comes from Rossi (1955), who states that residential mobility is “the process by which families adjust their housing to the housing needs that are generated by shifts in the family composition that accompany life cycle changes.” Another definition comes from Priemus (1984), who states that residential mobility can be interpreted as “the effort to adapt the living conditions to the demands of the inhabitant through changing the place of residence.” In this report, the definition given by Priemus in 1984 will be used, as Rossi’s definition falls short due to it only taking life cycle changes into account. Priemus’ definition of residential mobility is, although it is really general, the most fitting to describe the phenomenon. (Boumeester, 2004; Priemus, 1984; Rossi, 1955)

Changing the place of residence is effort. In general, most households will not move to a living situation which is only a little bit better than their contemporary housing situation. If they can, they will wait until their desired option becomes available. This seems logical, as changing the place of residence costs money and energy, which forms a threshold which the attractiveness of the new housing location must overcome. However, observations have been made in which households move to a dwelling which can be deemed ‘less favourable’ by some. This begs the question; why do households move? (Boumeester, 2004; Priemus, 2004)

3.1 The process of moving and the optimisation of ‘use’

For any household, moving is never a goal itself, but rather a mean to reach a goal of some sorts. People target specific, concrete goals, in order to achieve life goals. In this context, people tend to speak of housing preferences. These preferences can vary between individuals, and can change during the lifespan of the individual, based on their social status and household configuration. These preferences are, in combination with information about the available opportunities and limitations, guiding for the individuals behaviour on the housing market. (Boumeester, 2004)

Based on these preferences, individuals assign some sort of ‘utility’ to their residential unit and location, which they then relate to alternative housing locations. This ‘place utility’ expresses the living satisfaction or dissatisfaction, based on their current preferences. Following classical economic theory, it is expected that dwellings are chosen based on an optimisation of use value, or place utility. The use value of a certain housing product is determined by the dwelling location, size, quality, type and characteristics of the living environment. The valuation of these aspects can change between housing type. It is expected that when a households’ income grows, a higher number of housing services will be needed to maintain the use value which a households assigns to their dwelling. (Boumeester, 2004; Clapham, 2002)

Households move to match their living conditions with their preferences, which are formed by their household configuration and social status. These preferences are expressed in an experience of place utility. Residential mobility is a product of households trying to optimize the place utility connected to their dwellings. If preferences change, so does the satisfaction level with the households’ current place utility. If the dissatisfaction level is high enough, households will consider moving in order to reach a level of place utility which satisfies them. To fully understand this cycle, it is imperative to know how exactly housing preferences are established, how these preferences can change, and how the actual movements in the housing market relate to the possibilities and constraints households have in the housing market.

3.2 Changing living preferences; career and life cycle theory

Over the years, several researchers have connected residential mobility to changes in career and life cycles which households follow. Back in 1955, Rossi connected residential mobility to what he called 'the household cycle'.

The household cycle

Rossi concluded that the desire to move is established through a function of the household cycle, accompanied by the household size, age of the head of the household, the desired and actual ownership ratios and the desired number of rooms in the dwelling. He states that residential mobility is fuelled when another phase in the household cycle is reached. Younger households move more often and live relatively more often in a rental dwelling. Households then tend to move to an owner occupied dwelling when they marry, a dwelling which is suitable for having kids. Finally, households might move when their children eventually move out. When moving further in the cycle, households are less likely to move, and the chance of moving into an owner occupied dwelling goes up. (Boumeester, 2004; Priemus, 1984)

Rossi's theory concerning the household cycle has been adopted by many researchers in the field. However, after some time, criticism on the household theory grew, as it seems to neglect the seemingly narrow cohesion between the household cycle and the position on the job market in relation to residential mobility.

The job market cycle

In the Dutch situation, there is a clear connection between income level and the type of dwelling or ownership status which has been chosen. This can partly be explained by the institutional framework in which Dutch households find themselves in in the housing market, as owner-occupiers can claim tax reduction based on their mortgage and tenants in certain income groups can claim rent allowance. Thus, it makes sense to take the household's income, as well as the future perspective of the household income into account when researching residential mobility decision making models. A household's income and their future perspective on their income level has to do with the career members of the households go through on the job market. This is where the job market cycle theory comes into play. The relationship between the job market cycle and residential mobility runs along two lines; first of all there is a status effect; a growth in income can influence the need for a better dwelling and living environment. Second, there's a location effect: accepting a job in a different region can make residential mobility a necessity. (Boumeester, 2004)

Priemus describes the job market cycle using 'income-age profiles', which show that an individual's income level is connected to their age. Individual incomes grow rapidly at the start of the job cycle, and reaches a top at the age of 50, after which there is a steady decline in income. The income level (and the future perspectives on the income level) are strongly connected to the age of the household. (Boumeester, 2004; Priemus, 1984)

The job market cycle cannot be seen as independent from the household cycle. A strong position in the job market can be a precondition for some households to enter another stage of the life cycle (like having kids). A household's position in the job market cycle also influences the opportunities and constraints a household experiences when looking for an alternative dwelling, as the household's income level and job security greatly affect what type of dwelling households can afford. The household demography can influence choices made in the job market and vice versa. (Boumeester, 2004)

3.3 Introducing the career/life cycle model

Because the job market cycle and the life cycle are so interconnected, residential mobility theorists introduced the career/life cycle model. According to this model, changes in the household cycle position and/or the job market cycle position can lead to dissatisfaction with the current place utility connected to the current place of residence, which can lead to residential mobility. An abstraction of the career/life cycle model can be seen in figure 5 below.

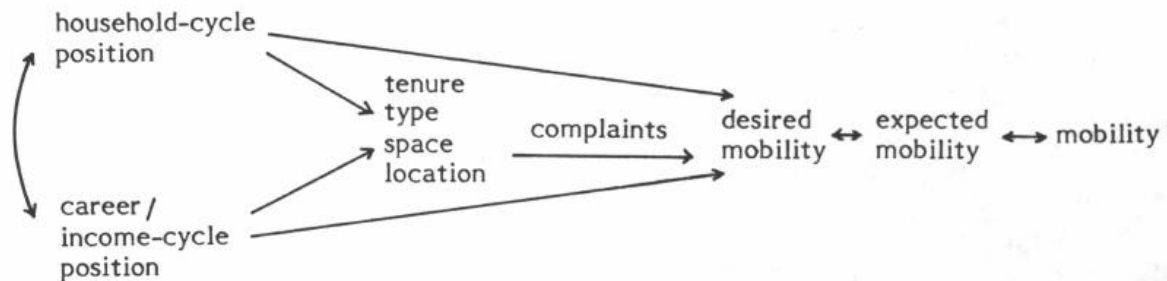


Figure 5: The career/life cycle model according to Priemus (1984)

The model is best explained from left to right; on the left, the relative household and career cycle positions can be seen. These cycles do not only influence the satisfaction with the current tenure status, dwelling type and so forth, but also influence each other. This would be the case if, for example, a household decides to work less because of recently born children. Dissatisfaction with the current dwelling characteristics (tenure status, type etc.) occurs, complaints may rise which lead to the wish to move, the desired mobility. However, there's also a connection visible which directly leads from the relative cycle position to desired mobility, bypassing complaints with the current dwelling characteristics. This connection usually is the product of sudden changes in the households' position (e.g. divorce, or getting fired), which leads to households having to move. Finally, desired mobility will lead to expected mobility, and eventually mobility itself.

This idea of a housing career which develops during the existence of a household fits the formerly made assumption that residential mobility is a product of rational behaviour: moving is a mean used to reach a certain goal. This includes movements which are not necessarily deemed 'a step forward'. Changes in professional situation or divorces, for example, can lead to movements towards a dwelling which compared to the former dwelling is lower in the 'housing hierarchy'. As such, dissatisfaction with the current place utility is not the only incentive for mobility. (Boumeester, 2004; Priemus, 1984)

3.4 The role of motives to move: primary vs. secondary action

For a correct interpretation of movement behaviour, it is important to take the motives which form the basis of movements into account. The different motives appear to have a great influence on the moment of moving as well as the dwelling choice. A distinction should be made between households who move because they experience the *need* to adapt their housing situation (group 1) and households that are *forced* move because of (sudden) changes in their career / life cycle position (group 2). These groups can also be seen in table 4 below. Sudden changes in the career or life cycle can come in the form of divorce, child birth, or changes which are work-related. (Boumeester, 2004)

Table 4: Primary vs. secondary action (Boumeester, 2004)			
	Motivation to move?	Urgent?	Can wait for desired option?
Group 1: primary action	Experience the <i>need</i> to move	no	yes

Group 2: secondary action	Are <i>forced</i> to move due to sudden changes	yes	no
----------------------------------	---	-----	----

The key difference between these two groups, which is also the main reason why making this distinction is important, is the urgency with which households need to move. Households taking primary action are in a position to put off the moving process until their desired option is available, because their desire to move is not urgent. The other group, taking secondary action, will have to make do with that is available instead of what is highly preferred, resulting in substitution behaviour. Households taking primary action are therefore more likely to move to a dwelling which fits their preferences. (Boumeester, 2004; Goetgeluk & Hooijmeijer, 2002)

3.5 Critique to the career/life cycle model

The career and life cycle theory presumes that everyone marries, gets children and that there are no missing links in this cycle. However, in contemporary society there is a growing diversity in life cycles and household configuration. People live alone longer and more often, less children are being born and more divorces take place. Many now partner later in life, or establish second, third or fourth long-term relationships. The traditional household cycle is merely one of the options which an individual can lead during his or her life. Next to this, the job market is changing as well. Young adults enter the labour market later, after completing higher education. Part-time or casual contract employment holds households from home-ownership; the luxury of a 'job for life' isn't as natural as it was before. A growing or lowering income is less often dependent of an individuals' age. (Beer et al., 2011; Boumeester, 2004)

The importance of the career and life cycle position on the satisfaction with the current dwelling, and thus the decision to move is obvious. However, nowadays the link between the career and life cycle is less obvious than it used to be. This is why Priemus's model for residential mobility (displayed in figure 5 found above) cannot be adopted as is. We then come to an adaptation of the model presented by Priemus, which can be seen below in figure 6.

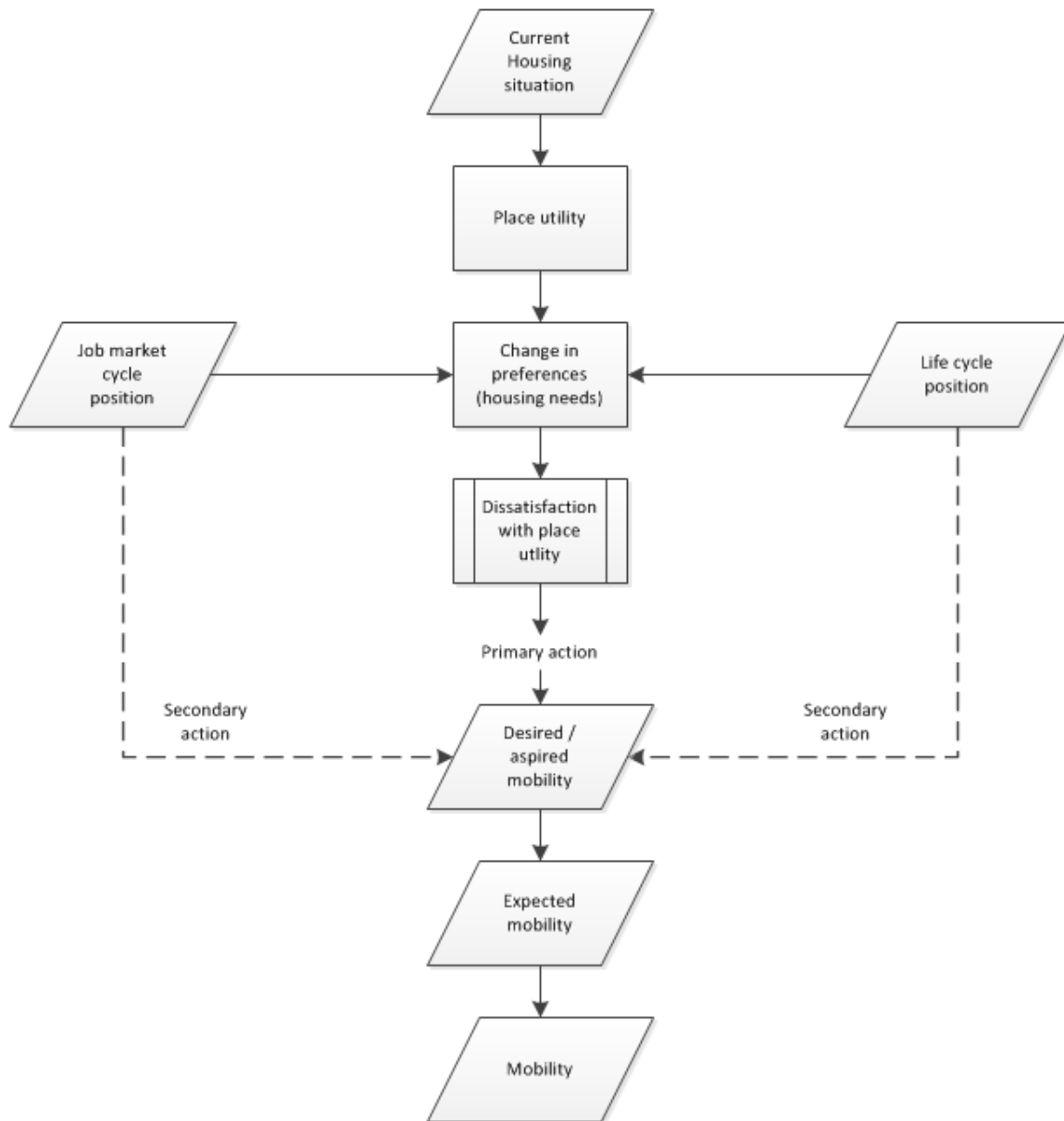


Figure 6: the modified career/life cycle, based on the career/life cycle according to Priemus (1984), modified by myself

The differences with Priemus' model for residential mobility aren't great, but they are present nonetheless. First of all, where Priemus has put 'tenure, type, space and location', I have opted to put 'place utility' instead. After all, these characteristics aren't leading in themselves, but it's how the households perceive these characteristics, the place utility, which is an important factor in residential mobility. A second difference with Priemus' model is the fact that the job market and life cycle position do not directly 'point' at the place utility. This is no more than logical, as accepting a different job does not make your house any bigger, more expensive or situated elsewhere. However, the relative position of the household in these cycles do greatly affect the housing preferences, which lead to a (dis)satisfaction level with the place utility. Third, you might have noticed that the job market and life cycle aren't connected. This is in line with the points of critique to the career/life cycle theory which have been presented in the section above. In today's society, a clear link between the lifecycle position and the job market position is no longer natural. Lastly, the difference between primary and secondary

action have been made more obvious in the new model. It is now more clear that households which are taking secondary action are bypassing the 'dissatisfaction with place utility' box.

However, the model isn't finished here. As it is now, it assumes the outcome, the residential mobility itself, is a product of either life/job market cycle changes and/or dissatisfaction with the place utility connected to a dwelling. It neglects the fact that the actual mobility of households is connected to the constraints and limitations a household experiences in the housing market. In the next section, these constraints and limitations are explained.

3.6 Constraints and limitations on the housing market

An often addressed point of critique concerning the career/life cycle model is the voluntary character of the model. A direct link between the desired and actual movements is assumed, while in reality, the households are limited in the housing market due to several external constraints. The possibilities households have in the housing market relate to the availability of preferred dwellings and the knowledge a household has concerning the availability of these dwellings (housing market constraints), as well as governance concerning housing (housing governance constraints). In the section below, first housing market constraints are introduced, followed by housing governance constraints. (Boumeester, 2004)

Housing market constraints

There are several types of constraints which can be linked to the housing market. The first constraint is the availability of a desirable dwelling. Households can only move to a desirable dwelling if the desired dwelling has become available. Second to this requirement is the fact that households need to know about the dwelling becoming available, in order for them to consider moving to that dwelling. The supply of adequate housing plays a role here on different facets. When considering the available supply on the market, one needs to take into account the housing preferences a household has. This way, the supply of rental and owner occupied dwellings can play a role in a household's decision to move, but also the type of dwelling and dwelling characteristics play a role in decision making. A shortage in supply can result in households putting off moving to another dwelling, or it can lead to substitution. (Goetgeluk & Hooimeijer, 2002; van Middelkoop & Boumeester, 2014)

Second, the location in which a household lives or looks for a suitable dwelling is a limiting factor. Beer and Faulkner (2001) state that 'a monochromatic view of the housing market should be avoided, as the way an individual experiences the housing market is greatly affected by location'. For example, opportunities that are beyond commuting distance from the place of work will be irrelevant for the household in search, resulting in households merely looking for available dwellings in their region. (Goetgeluk & Hooimeijer, 2002)

Based on the supply in the regional housing market, households are forced to make trade-offs. The reason why households are looking for a dwelling is leading in deciding which trade-offs are made. The urgency with which households need to move is intertwined with the housing market supply. Households which experience less urgency will decide not to move in a time in which supply is lacking, and households which experience great urgency will move to a dwelling which is a substitute of their actual demands. (Goetgeluk & Hooimeijer, 2002)

Housing governance constraints

Next to the supply in housing, there are other factors which dictate the options households have in the housing market. For example, in many countries, constraints are imposed on the access of higher income groups into cheap housing. In the Netherlands, this is the case with the regulated rental sector.

However, the unregulated rental sector as well as the owner-occupied sector feature constraints as well, limiting options for households looking to move. (Goetgeluk & Hooimeijer, 2002)

In the unregulated rental segment it is not uncommon for the owners of the rental dwelling to request income statements from their (prospective) tenants. Often, the prospective tenant must show the owner that they earn a particular multitude of the rental sum before they're allowed to rent. This is done to increase the owner's financial security, through ensuring that their tenant has an income level with which they can easily pay their rent. (Huurwoningen.nl, n.d.; Woonzorg.nl, n.d.; Ymere.nl, n.d.)

In the owner-occupied segment of the market, there are constraints to be found which are imposed by the Dutch government, as part of an attempt to limit mortgage debt in the Netherlands. In order to limit mortgage debt, there now is a maximum mortgage for a particular dwelling. The imposed rules state that a mortgage may not be higher than the market value of a particular dwelling. Next to this, other expenses, like consultancy, notary or taxation fees, may not be financed with the use of the mortgage. In addition, the amount of money one can borrow with a mortgage is limited by the household's income. The expenses connected to the mortgage must fit in a household's monthly expenditures. (Eigenhuis.nl; Rijksoverheid, n.d.)

3.7 Synthesis: residential mobility

Residential can best be described as the process by which families adapt their living conditions to their demands, through changing the place of residence within their region. Housing preferences are expressed in an experience of place utility. If preferences change, so does the satisfaction level with the household's current place utility. If the dissatisfaction level is high enough, households will consider moving in order to reach a level of place utility which satisfies them.

The experience of place utility and the housing preferences of households are influenced by their relative position in the life cycle and job market cycle. These cycles used to be connected to each other, as a household's income was linked to their age, but nowadays this is not so much the case anymore. These cycles independently affect the place utility assigned to a household's current dwelling. If households decide to move because they experience a *need* for a better housing situation, they are taking primary action. These households experience very little or no urgency in their desire to move. However, if these households are *forced* to move due to changes in their life or job market cycle (as is the case with a divorce, or if they have found a job in a different region), they are taking secondary action. Households taking secondary action need to move urgently.

The distinction between these two types of relocation motives is important, as households taking primary action often are more successful in reaching their desired housing situation, as they can afford to wait until their desired option has become available. Once households decide to move, either through primary or secondary action, they need to find a dwelling to move to. The options households have are dictated by numerous constraints in the housing market. A distinction can be made between housing market constraints, and housing governance constraints.

Housing market constraints are induced by the housing market; appropriate dwellings need to be available, and households need to know about these dwellings becoming available. Next to this, the dwellings need to be available in the right location for the household to consider them a viable option. Housing governance constraints concern the regulations which keep households from accessing certain parts of the housing market. Regulated rental dwellings are off access for households with a high income, while the unregulated rental sector as well as the owner occupied sector require income statements before households are allowed to rent or buy. These conclusions have been summarized in the conceptual model in figure 7 found below. A brief explanation of the model follows afterwards.

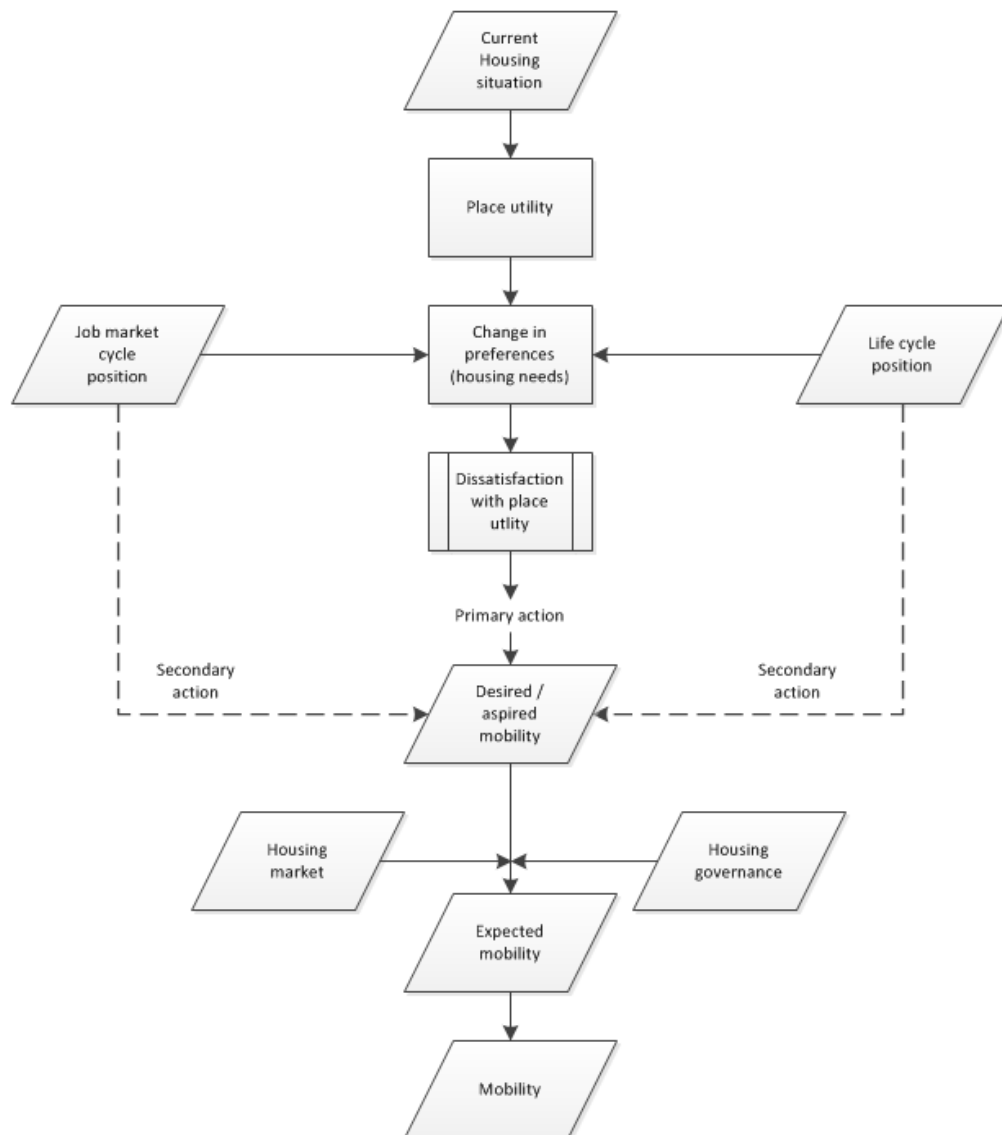


Figure 7: The conceptual model for residential mobility (own image, based on Priemus, 1984)

In the top of the model, the current housing situation can be seen, with a connection to the place utility box. The place utility is the valuation of the current dwelling by the household which resides in it, based on dwelling characteristics like size, number of rooms and type, but also tenure status and location. The sense of place utility is formed by the characteristics mentioned before, but is also influenced by the relative life and job market cycle position of the household. Changes in the household's relative position in these cycles can result in changing preferences, which can lead to a dissatisfaction with the place utility derived from the current housing situation. If households start to consider moving due to the dissatisfaction level, they are planning on taking primary action. These households do not have to move urgently, and are only willing to move if the housing options which are available are substantially better than their current dwelling.

The relative cycle position of the household can also directly lead to the desire to move. This is likely due to sudden changes, like unexpected child birth, accepting a job which forces you to move, divorce or something of the sorts. In these cases, the dissatisfaction level with place utility is bypassed in the

model. Households which want to move because of these sudden changes are taking secondary action. They need to move urgently, and are not in a situation which allows them to wait for their desired option.

When a household wants to move, they will start looking for options to move to. Acceptable options take the form of their housing demands, and are further shaped by the situation on the housing market itself and governance concerning housing, like mortgage restrictions and requested income statements. These constraints influence moving behaviour, a lack of supply or certain governance induced restrictions can result in substitution, or the household not moving at all. The desired dwelling, along with the housing market and housing governance constraints form what the household expects to move to. This is the expected mobility box after which the next step often involves the household actually moving to their expected option.

3.8 Literature review summary

To find out more about why households move, what thresholds need to be overcome before they move, and what influences their final decision to move, literature concerning residential mobility has been consulted. This has ultimately resulted in the creation of a conceptual model, which is to be seen in figure 7, on page 28.

From the literature concerning residential mobility, we learnt that households assign a sense of 'place utility' to their current housing situation, and will start to consider moving if they become dissatisfied with this sense of place utility. These households take primary action when eventually move. There are also scenarios in which households are forced to move, either due to job-market cycle-related reasons, or due to life-cycle related reasons, without being dissatisfied with their sense of place utility. These households take secondary action when moving.

The households taking primary will only move when a desirable option becomes available to them, while households taking secondary action often find there is urgency with their desire to move, and have to make do with what is available at the moment. The desirability of a certain dwelling is dependent on the household's relative job market or life cycle position, as these shape the household's housing preferences, which in turn affect how a household experiences a dwelling. The options households have in the regional housing market are limited due to constraints, which can be housing market related (in terms of supply and affordability), or housing governance related (what kind of mortgage the household can receive, or whether if an income statement is needed to become a tenant of a certain type of dwelling).

4. Research Question and sub questions

The main research question for this research proposal reads *'How do the intermediate rental segment and associated housing allocation procedures which Dudok Wonen offers contribute to the desired filtering processes in the municipalities Gooise Meren and Hilversum?'*.

The literature review gave insight in the goals described in municipal residential visions and performance agreements which Dudok Wonen has taken part in establishing, as well as Dudok Wonen's stance on how these goals should be reached. Dudok Wonen has set the goal to provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment. Households that have moved to a dwelling in the intermediate segment should find that their dwelling is better than the dwelling they resided in in the regulated rental segment, but they should still experience triggers to continue their housing career.

The dwellings offered in the intermediate rental segment should bridge a gap between the regulated and the unregulated segment. This brings us to the first set of sub-question for this thesis;

1. To what extent does the intermediate rental segment fill the price-quality gap which Dudok Wonen wants it to fill?
 - a. To what extent is there a price-quality gap noticeable in the regional housing market?
 - b. Does the intermediate rental segment offered by Dudok Wonen indeed fill up the price-quality gap, or is it 'mismatched?'
 - c. How does the price-quality ratio of the intermediate rental segment offered by Dudok Wonen stack up against price-quality ratios found in other segments of the housing markets, and how can differences between the market segments be explained?

In order to initiate the desired filtering processes, Dudok Wonen wants households to be triggered to move to the intermediate rental segment. They want to realise this by offering a more attractive price/quality ratio in the intermediate rental segment than there is available in the unregulated rental segment, so that households residing in the regulated rental segment will find the dwellings in the intermediate rental segment attractive options to move to. This brings us to the next set of sub-questions;

2. How does the intermediate rental segment contribute to initiating filtering processes?
 - a. To what extent does the intermediate rental segment supply household in the regulated rental segment with triggers to move?
 - b. To what extent does the price-quality ratio of the intermediate rental segment contribute to initiating filtering processes in the region?
 - c. What has motivated households to move to the intermediate rental segment?
 - d. Is the price quality ratio the decisive reason for households to move?
 - e. Do households assign a greater place utility to these dwellings compared to their former dwellings?
 - f. Are households indeed looking for a rental dwelling, or would they rather have a dwelling in the owner occupied market?

The next section of this report entails a description of the methods selected to answer these questions.

5. Research Methods

In order to answer the research questions posed in the former section, several research methods have been selected.

Dudok Wonen's ambition to stimulate filtering processes with the introduction of an intermediate rental segment is based on the idea that price and quality characteristics of the different segments play a large role in the decision for households to move. This ambition has been visualised in figure 4, found on page 19. The intermediate rental segment should entail desirable options for middle income households to move to, by offering more quality than the regulated rental segment does, while being more affordable than the unregulated rental segment. To find out if this is the case, a quantitative comparison of the rental segments (regulated, intermediate and unregulated rental segments) has to be performed.

The literature review concerning residential mobility revealed that unless an event forces households to move, households move to realise specific goals. They need to overcome certain thresholds before they decide that they want to move, and before they eventually move. These thresholds come in the form of quality constraints, budget constraints and housing market and governance constraints. To find out what keeps households from moving, it is important to uncover why households want to move, what preferences and priorities they have and what affects their decisions in the housing market. The middle income households that currently reside in Dudok Wonen's regulated rental segment dwellings have been approached using a structured web-survey. The households that have moved to the intermediated rental segment have been approached with semi-structured interviews. In figure 8 below, an overview of the used research methods have been used in this research is provided.

First, the quantitative analysis in which the three rental segments are compared will be explained, after which the structured web-survey and the semi-structured interviews are explained.

5.1 Quantitative comparison of the rental segments

From the literature analysis we've learnt that Dudok Wonen wants to attract households from the regulated rental dwellings with desirable dwellings, and that they believe that this should happen using price-quality ratios. Therefore, a method needed to be selected which allows us to tell how the three segments (the regulated rental segment, the intermediate rental segment and the unregulated rental segment) are ranked in terms of quality, price, and the price-quality ratio.

With Dudok Wonen's goals in mind, the expected outcome of such an analysis would be that the lowest price/quality ratio is to be found in the regulated rental segment, followed by a higher price/quality ratio in the discounted unregulated rental dwellings, after which the highest price/quality ratio is to be found in the regular unregulated rental dwellings available on the market.

While the selection criteria for the dwelling price characteristics are pretty straightforward (as rental prices for dwellings are objective), quality criteria are subjective, as they vary from household to household. So, before this research can be conducted, a method to determine dwelling quality needs to be selected.

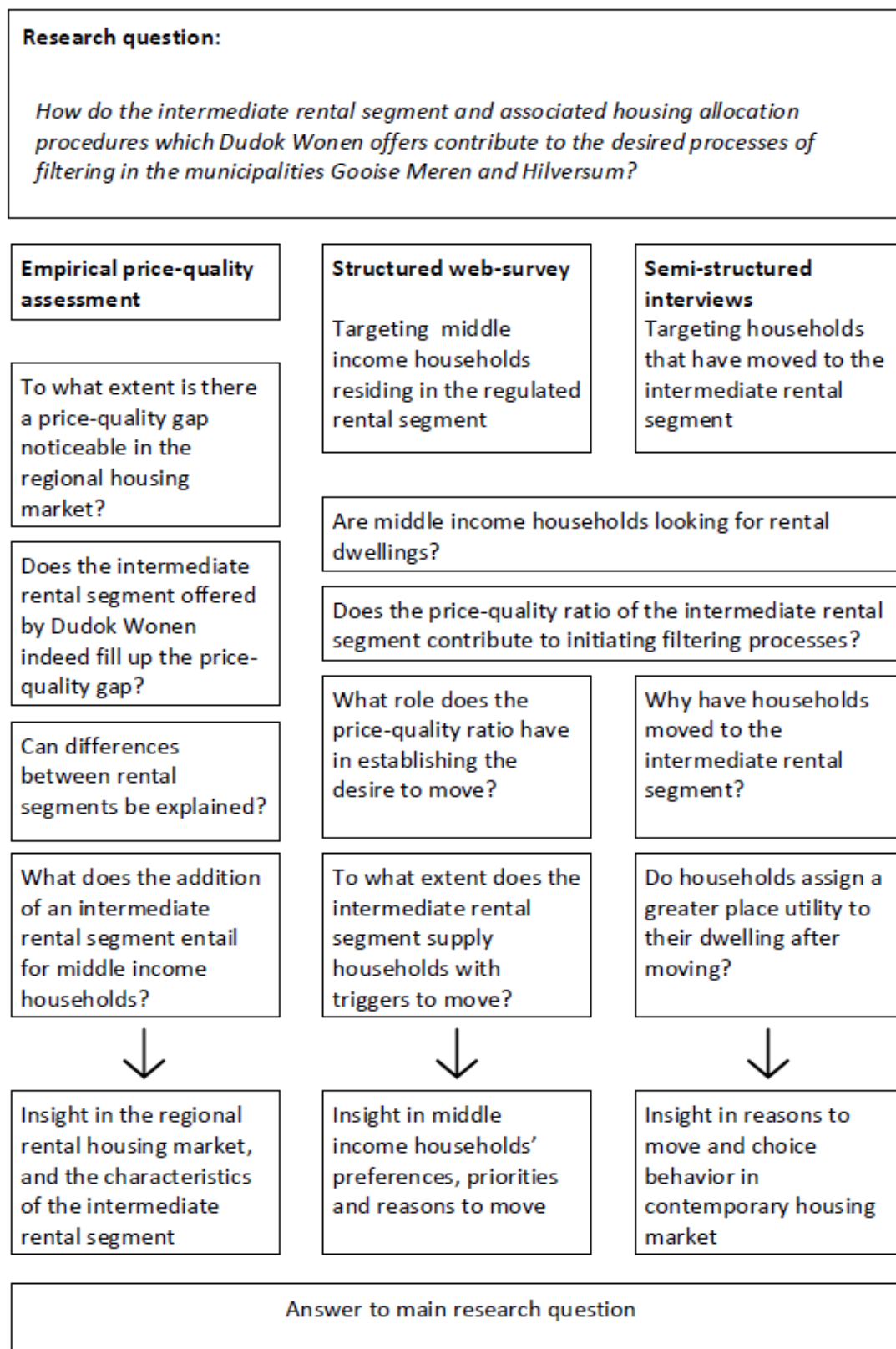


Figure 8: A scheme depicting the selected research methods and what they need to uncover. (own image)

In existing literature, no unambiguous method for determining housing quality can be found. Many different variables can be chosen as quality indicators. An American research conducted by Kain and Quigley in 1970 featured a determination of housing quality on the basis of 39 variables, ranging from

dwelling characteristics to overall neighbourhood characteristics and condition. Another (more recent) research, conducted by the faculty of spatial sciences at the university of Groningen uses 17 variables to assess the dwelling quality. Finally, Dudok Wonen has assessed price-quality ratios in their region using only the rental price asked per month, and the dwelling surface area. (Kain & Quigley, 1970; Pellenburg & van Steen, 2005; Zanting & Wezel, n.d.)

The great number of variables used in these studies is partly due to the heterogeneous characteristics of the housing market, as well as the differences in housing preferences per household. The heterogeneity of the housing market is due to the fact that there are no identical properties in the housing market. For instance, there are strong differences between newly developed buildings and the existing housing supply, due to the state of maintenance of existing dwellings, the change in construction methods over time, the quality standards for isolation of the buildings, and the building regulations prescribed by government institutions. The cause of differences in housing preferences between households has been touched upon before in this thesis; personal preferences are formed by one's opinion, as well as their relative life and job market cycle position. (Wildt & Dorst, 2012)

Another study, conducted by the Dutch CBS (Central Bureau for Statistics), focussed not on the determination of housing quality, but on how dwelling prices are determined. This research concludes that mostly dwelling size and dwelling location are leading dwelling characteristics when it comes to establishing dwelling price. This means that the dwelling surface area and location characteristics can be used to assess dwelling quality, making the number of square meters a dwelling has to offer a good measure for dwelling quality. (Visser, van Dam & Noorman, 2006)

Next to the number of square meters, data needs to be found which gives insight in the dwelling location. For this, the WOZ (Dutch: Waardering Onroerende Zaken, English: Valuation Real estate) value has been selected.

WOZ value

The WOZ value is a value determinant used by municipalities to establish the taxation on real estate properties. The value is established with the help of a real estate appraiser, who takes into account information regarding the building itself, as well as the building's location. The real estate appraiser visits similar buildings which have been sold near the value reference date (Dutch: waardepeildatum). Not every building is analysed individually; the municipality estimates individual buildings through a computer model, which takes into account i.a. building location, modifications, maintenance, age and size. (Rijksoverheid, n.d.)

Municipalities split up object specific characteristics in two segments; primary object characteristics and secondary object characteristics. Primary object characteristics are building size, age, type and location, while secondary building characteristics are quality, maintenance level, appearance, efficiency and facilities. Both municipalities Hilversum and Gooise Meren have been found to execute these valuations 'good', meaning that the WOZ information for 2018 is up to date. Information regarding WOZ values is publicly available from <http://www.wozwaardeloket.nl/>. (Rijksoverheid, n.d.; Waarderingskamer, 2017, 2018)

As stated in the text box above, the WOZ value is an accumulation of several leading dwelling quality characteristics, including the dwelling location. As such, dwelling location is (partly) expressed in the WOZ value.

The analysis will include the affordable regulated rental dwellings and affordable unregulated rental dwellings offered by Dudok Wonen, and a selection of dwellings from the unregulated sector. These dwellings will be assigned a price-quality ratio based on the dwellings surface area, WOZ value and

rent paid per month. This will also be done for dwellings found in the regulated rental sector, as well as the rest of the unregulated rental sector. In the dataset which is to be created, rental prices and WOZ values should be from the same time period in order to make them comparable. Output of this part of the research will be a dataset in which the dwellings from the regulated rental sector, the affordable unregulated rental sector dwellings (those offered by Dudok Wonen) and the regulated rental sector dwellings are ranked in terms of their price-quality ratio. The goal is to gather information from at least 100 dwellings per segment.

Gathering the data

Data regarding the dwellings offered by Dudok Wonen (the regulated rental dwellings, as well as the intermediate segment for middle income households) has been supplied by Dudok Wonen, while the data regarding unregulated rental dwellings have been found using the website <http://www.Funda.nl/>. Funda is a real estate platform which aids real estate agents and consumers to offer and find rental as well as owner occupied dwellings.

When gathering the information from Funda.nl, it was important to only select unregulated rental dwellings. For this, the parameters in the search query have been set so that only regulated rental dwellings were shown.

Creating the database

The data which has been supplied by Dudok Wonen needed to be adapted a bit before it was suitable for comparisons. In the dataset supplied by Dudok Wonen, the dwellings were labelled with a policy label, indicating if they are supposed to be let as a regulated, an unregulated or another type of dwelling. However, these labels did not reflect the current tenement status. Instead, they reflect what the dwelling is supposed to be let as when the dwelling mutates (when the dwelling's occupant changes). To correct this, the correct tenement status was retrieved from Dudok Wonen's Viewpoint, the system in which they keep their records. Data was supplied for 6058 regulated rental dwellings. Here a random sample of 100 dwellings was taken using the RANDBETWEEN function in Microsoft Excel. Every dwelling was given a random number between 1 to 6058, after which they were sorted according to this number. The first 100 dwellings were selected for the analysis.

The data regarding dwellings offered on Funda.nl was collected manually, over the course of 1,5 months, after which the WOZ value was collected via WOZwaardeloket.nl. To ensure that data regarding regulated rental dwellings wasn't collected, the search query variables have been adapted so that only dwellings with a rental price over 710,68 were to be found.

Limitations of the data

With this data, a dataset was created which has been used for the analysis. However, some shortcomings of the dataset, which have to do with the methods used to collect the data and the quality of the data itself, and might affect what conclusions can be drawn based on the available data, need to be noted. Not all data in the dataset has been collected in the same time period. Data concerning the dwellings offered by Dudok Wonen (the regulated and intermediate rental segments) is from the 1st of January of 2018, while the data concerning the unregulated rental segment has been collected over the course of 1,5 months between March and May.

While collecting the data, I was unable to check Funda for new offers every day. This means that in theory, some (very) attractive options, which were only available on Funda for a very short amount of time might have been unnoticed. Also, advertisements concerning furnished dwellings haven't been selected to be part of the dataset, but not every advertisement was particularly clear on this part.

Next to this, for some of the dwellings found on Funda, the most recent WOZ value could not be found. To correct this, the WOZ value of 2016 has been modified with the average WOZ value increase for the municipality of Hilversum.

5.2 Social research methods

A structured web survey has been distributed amongst the residents of the regulated rental dwellings offered by Dudok Wonen, while the residents of the affordable unregulated dwellings have been approached with semi-structured interviews. These methods have been selected with the populations of both housing segments in mind, as the population of the affordable unregulated rental dwellings is not large enough to expect an appropriate response on a structured web-survey.

5.2.1 *The structured web survey*

A structured web survey is an easy, cost effective method to reach out to a large population. A web survey is self-administered, which entails that there is no way to guide the respondent through the survey. Because of this, attention must be paid to ensure that the questionnaire is comprehensible and easy to complete. This can be done by including clear instructions on how to respond, along with a proper introduction. Web surveys, or questionnaires distributed through the web can be used to filter questions (if yes go to A, if no, go to B etc.) this is a big plus to this method of conducting questionnaires. (Bryman, 2016)

However, this research method also features some downsides; households can use more than one e-mail, which may lead to the survey which will be sent to remain unnoticed. Next to this, using e-mail to reach out to the households may result in a biased sample of the population, as internet users tend to be better educated, wealthier, younger and not representative in ethnic terms. Then there is also the issue of non-response, to which web surveys or questionnaires are especially vulnerable. Not everyone in the population is contactable, and not everyone that is contactable is willing to participate. Efforts must be done to counter this issue, like sending reminders to the households receiving the survey, and sending an accompanying letter, which could bring attention to the survey to 'less online' groups as well. If needed, the response rate can be 'boosted' by administering the questionnaire through telephone. (Bryman, 2016)

The structured web survey is to be held amongst the inhabitants of the regulated rental dwellings offered by Dudok Wonen. Dudok Wonen houses almost 6.000 households in their unregulated segment, of which nearly 4.000 are contactable through e-mail. In order to be able to perform statistical analysis with the results, a minimum of 100 responses should be reached, meaning that the minimal aim is a response rate of about 2,5-3%.

The survey has been sent to 3.043 households via e-mail.

Themes in the structured survey

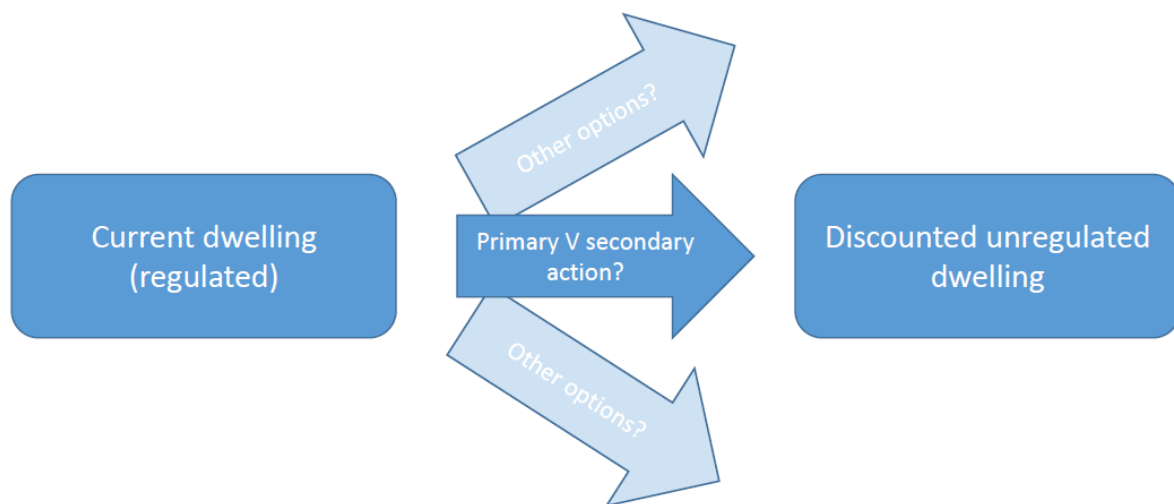


Figure 9: The conceptual model for the structured web-survey (own image)

The structured web survey is held to find out what housing preferences the population of the regulated rental dwellings has. In order to make this information applicable for the unregulated rental dwellings aimed at middle income households, it must also retrieve information regarding the income level of respondents. The main question which the survey should answer is whether if Dudok Wonen is solving an issue for middle income households currently residing in regulated rental dwellings with the addition of the discounted unregulated rental dwellings.

In order to answer these three questions, the survey has been split up in three segments, labelled block 1, 2 and 3. Block 1 is designed to give some insight in what kind of household is responding to the survey. Questions featured in this block are related to the age of the respondent, the respondents income level and the size of the household. Block 2 is designed to assess how the responding household values their current living environment. Questions featured in this block are related to the dwelling type, size, price, neighbourhood and satisfaction levels with these characteristics. Block 3 regards residential mobility. In this block households are asked whether if they are looking to move in the near future, and why they (do not) want to move. Based on the answers respondents give in this block, they are asked what their preferred housing situation looks like, where they would want to live, and what they are doing to find their preferred housing situation.

The results of the survey have been analysed with the use of IBM SPSS. The results will be used to assess whether if the households which make use of the products Dudok Wonen has offered in the light of their goals have chosen to do this based on triggers which are key to filtering processes. The survey will also shed light on the households expected paths in their housing career in the future.

5.2.2 Semi-structured interviews

The inhabitants of the affordable unregulated rental dwellings offered by Dudok Wonen feature a total population of about 160 households. While 160 respondents might be enough to perform statistical analysis with, the low response rate which web surveys are vulnerable to make a structured web survey an infeasible method to approach this target group with. Hence the decision has been made to approach these households with semi-structured interviews.

A major downside to this method is that it can be very time-consuming. However, the interview process is flexible, while it allows for specific issues to be addressed. The interviews need to be

recorded (if the interviewee allows this to happen), after which they are summarized and can partly be transcribed.

The interviews should assist in determining whether if the discounted dwellings in the unregulated segment have indeed attracted households with their price quality ratios. Due to the 50-50 allocation policy which Dudok Wonen uses, the population needs to be split up in two sub populations; Filterers (population 1) and Starters (population 2). Both of these populations feature about 80 households. Therefore the goal has been set to interview 8 households from both populations, amounting to 16 interviews in total.

In order to make the findings from both sets of interviews somewhat comparable, the structure of both interview guides is similar. As was the case with the web survey, the interview guides are split up in several blocks. Block 1 is designed to give some insight in what kind of household is participating in the interview. Here, subjects like age, household configuration and whether if they are a filterer or a starter are clarified. Block 2 sheds light on the household’s pervious housing situation, and their reason for leaving that situation behind. The respondents are asked what kind of dwelling they left behind, and how they valued their former housing situation. This is then followed by assessing whether if the household had to move urgently, and how long it took them to find an appropriate dwelling to move to. Finally, they’re asked whether if the process of finding a dwelling has led to them adapting their housing preferences (substitution behaviour). In Block 3 the households are asked to describe their current housing situation, and how they value the current housing situation. This information is then used to assess whether if their current housing situation is a better match with their housing preferences than their former housing situation. In block 4 the households are asked if they are currently considering to move, and in what time frame they would like to move. Changes in housing preferences since their last move are then established, if there are any. The goal here is to find out whether if the household does indeed want to, or sees opportunities to continue their housing career. Finally, they’re asked why they haven’t moved yet.

Population 1: Filterers

The filterers are households which have moved to one of the affordable unregulated rental dwellings from a regulated rental dwelling. This population is supposed have moved to one of the unregulated dwellings because they find the price/quality ratio in these dwellings more attractive, and should still find triggers in the housing market to continue their housing career.

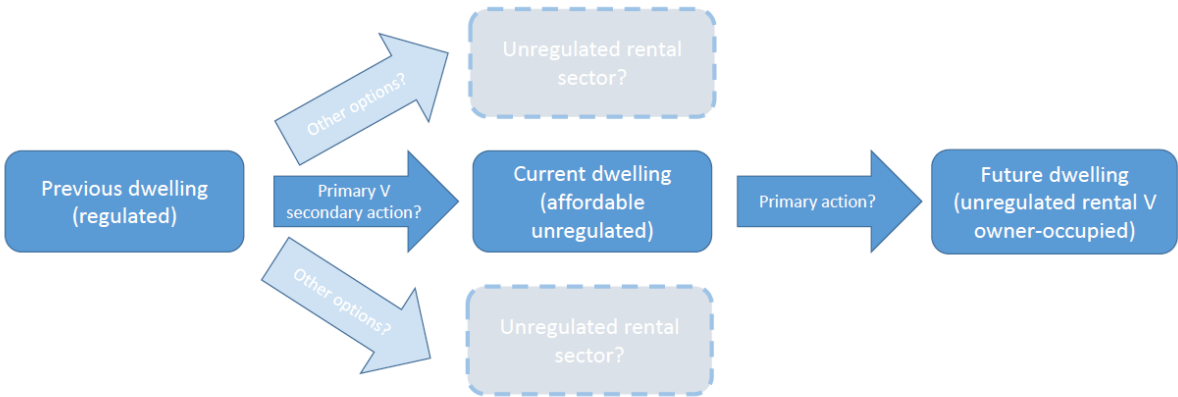


Figure 10: The conceptual model for the structured interviews with Filtered households

The interviews with filterers should uncover why households have moved to their current dwelling. Was this through primary action (were the households attracted towards these dwellings?) or through secondary action? How did the price quality ratio of these dwellings influence their final decision on where to move to? Is their current dwelling better than their former dwelling, and how does this dwelling connect to their housing preferences?

Population 2: starters

Topics which need to be covered during these interviews are the other options they've considered moving to, what constraints they've encountered during their search for housing, and how their current dwelling weighs against their living preferences. Finally, these households are asked if they're considering moving at this moment, what motivations they have for this desire (not to) move at this time, and why they haven't moved yet, if they want to move.

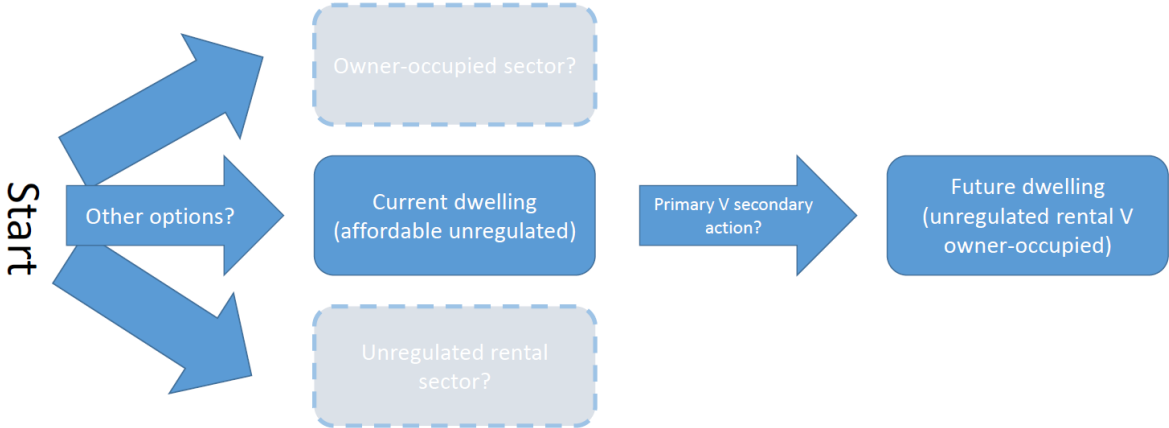


Figure 11: The conceptual model for the structured interviews with starting households

The interview guide for starters follows the same structure as the interview guide for filterers. There are however, some minor changes to make the interview guides more compatible for starting households. For example, rather than assuming that respondents were paying rent in their former housing situation, they're asked whether if they paid any rent at all. There still is a need to establish what place utility they experienced with their former housing situation, in order to be able to establish whether the starting households took primary or secondary action when moving to their current dwelling.

6. Analysis: the Price-quality assessment of the affordable unregulated rental dwellings

In this section of this thesis, the outcomes of the price-quality analysis are discussed. In the first section, the regulated and the unregulated rental segments will be compared. With the outcome of this comparison, statements can be made regarding the options middle income households have in the regional housing market. Are gaps noticeable in terms of price, quality or price-quality ratio? In section 6.2, the intermediate rental segment is included in the comparison. How does the intermediate rental segment stack up against the other two segments? What does the addition of this intermediate rental segment do for the options middle income households have in the regional housing market? In section 6.3, the found differences between the three segments are further examined, in order to find out what causes them. What are determining quality aspects? Section 6.4 features a synthesis, in which the outcomes of the comparisons are discussed in order to conclude whether the intermediate segment is fit to fulfil the role Dudok Wonen has envisioned it to do. In section 5.5, the implications of the addition of an intermediate rental segment for 'skewed tenants' are discussed, before finally coming to a conclusion in section 6.6.

For this analysis, a dataset is used containing data regarding regulated dwellings, unregulated dwellings and dwellings found in the intermediate segment. How the data has been obtained and selected has been discussed in section 6.1 of this report.

6.1 Comparing the regulated and the unregulated rental segments

In order to find out to what extent a price-quality gap is noticeable in the regional housing market, the regulated rental segment and the unregulated rental segment are compared in the section below. First, the price and quality aspects of both segments are compared. After this, the price-quality ratio is compared.

For this analysis, as well as the analysis described in section 6.2, the 'box-and-whisker' plots have been used. These plots have been chosen as they provide some valuable insights concerning numerical data in one image. The box and whiskered plots show the range of the data through a minimum and maximum, depicted by the vertical lines (the whiskers) of the plot. The boxes give insight in the quartiles, highlighting the second and third quartile in the numerical data. The median of the data is provided in the form of a horizontal line within the box.

Rental price: regulated versus unregulated

In figure 12 below, the rental prices for the regulated and the unregulated rental segment are shown.

Here, a clear distinction between the regulated and the unregulated segment can be seen. This is logical, as the rental prices in the regulated segment are regulated and cannot be higher than €710,68, and the unregulated rental segment starts at this price level. What this plot shows is that the unregulated rental segment is much more diverse than the regulated rental segment. It also shows that most of the dwellings that have been found in the unregulated rental segment are out of reach for middle income households, as most of the stock in the unregulated rental segment is priced higher than €1000, which is the Nibud rental price advice for middle income target groups.

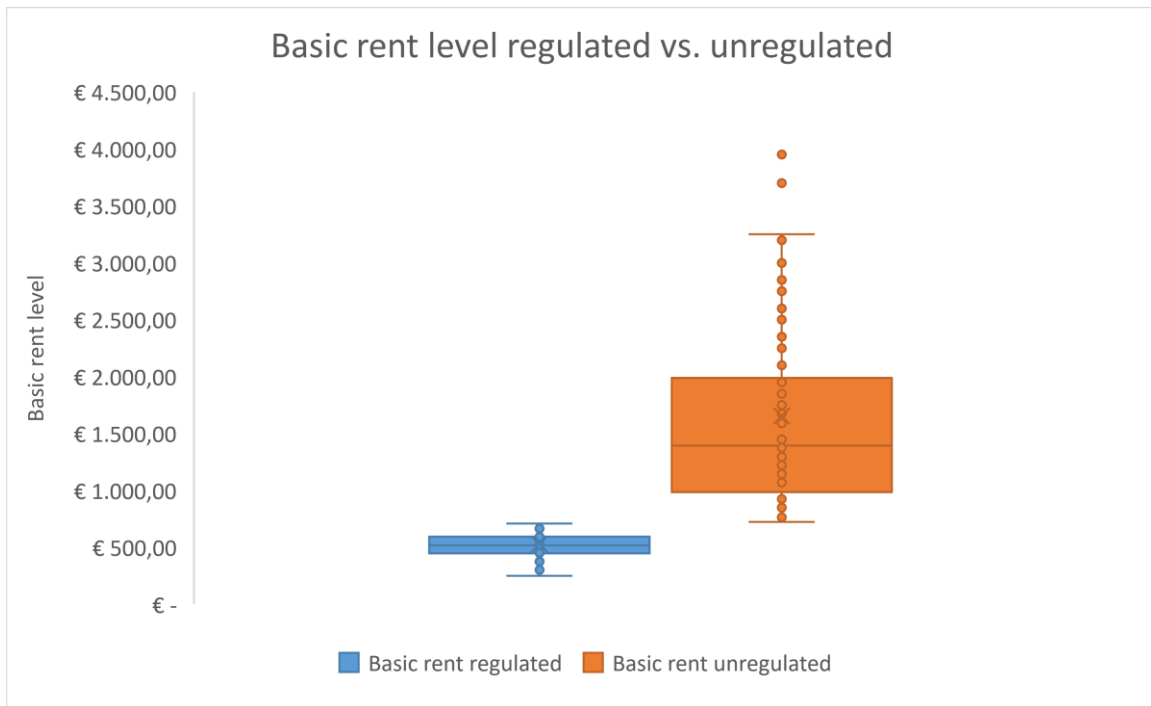


Figure 12: the basic rent levels of the regulated rental segment and the unregulated rental segment (own image)

In figure 13 below, the rental prices of all dwellings that take part in this comparison can be seen, sorted from low to high. Cases with a rental price suitable for middle income households are highlighted.

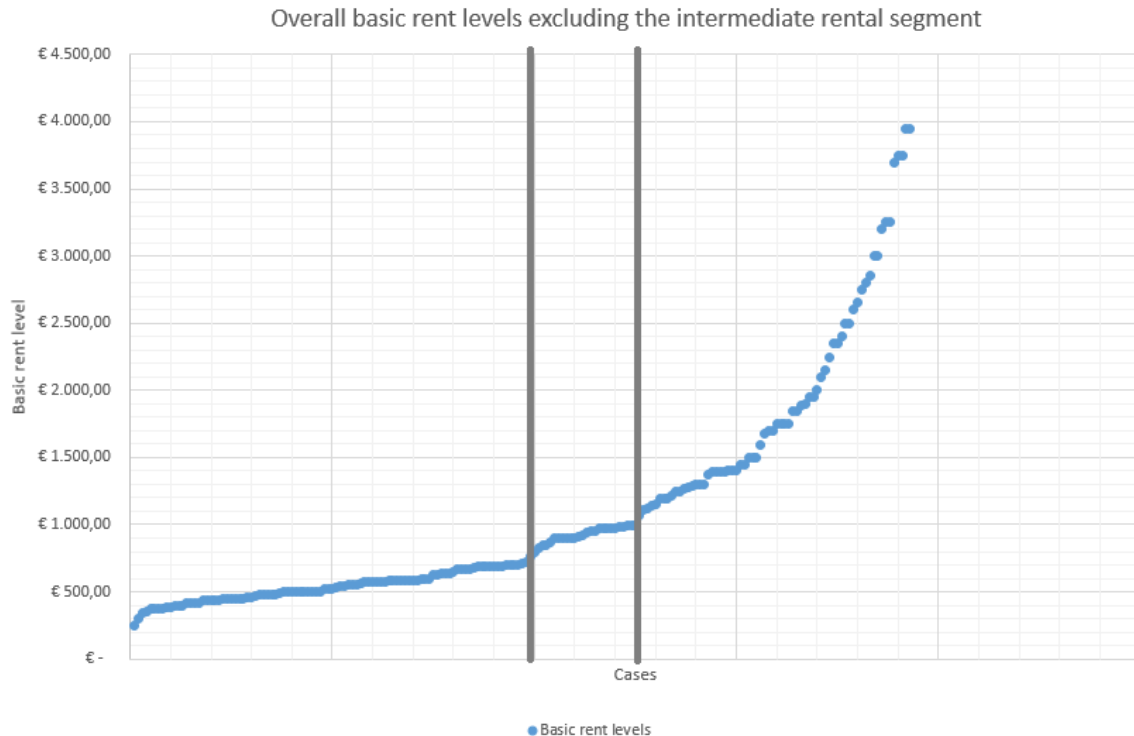


Figure 13: The overall basic rent levels excluding the intermediate rental segment (own image)

From this plot it becomes clear that only a very small portion of the found cases is suitable for middle income households. Here, it is also important to note that this portion of the supply is not reserved for

middle income households, meaning that while middle income households can afford the dwellings in the highlighted area, they also face competition from higher income households for dwellings in these price range.

Dwelling surface: regulated versus unregulated rental segments

In figure 14 below, the same thing has been done for the dwelling surface area. As was discussed in section 5.1, the dwelling surface area is a variable which is fit to represent the dwelling quality.

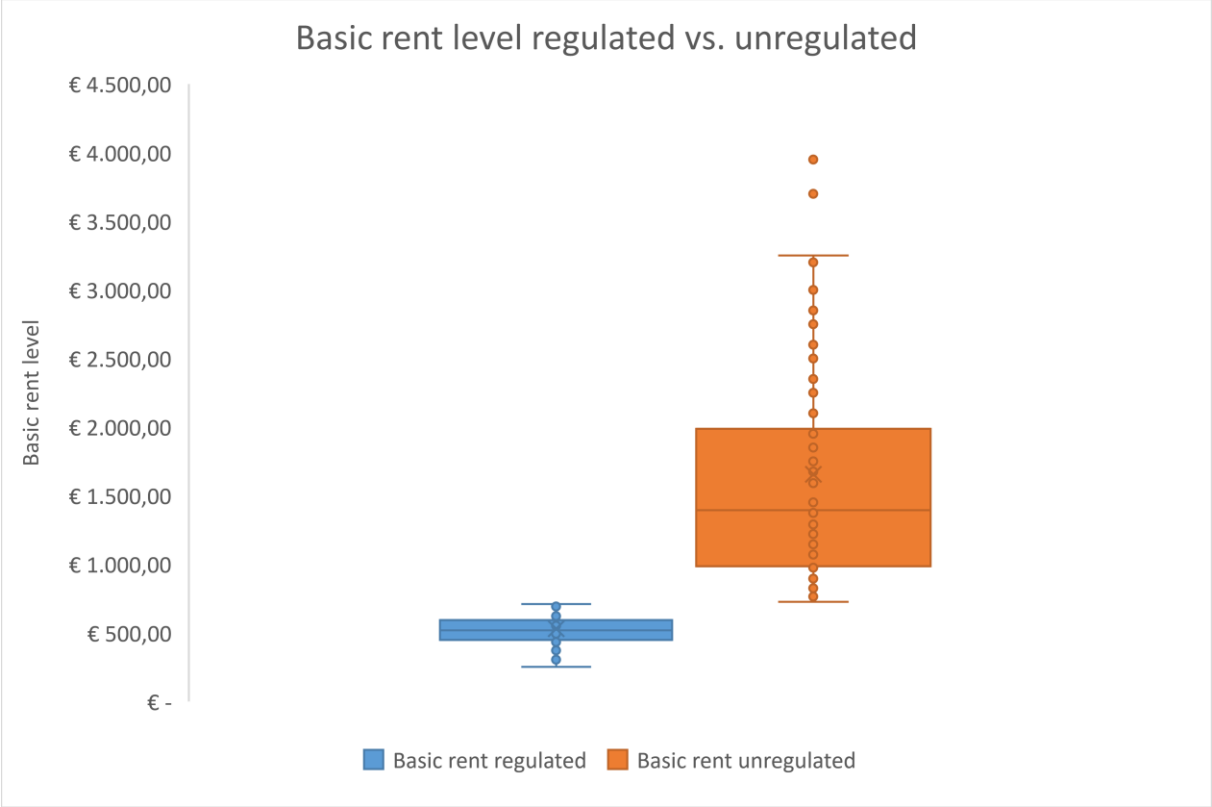


Figure 14: Dwelling surface areas of the regulated rental segment and the unregulated rental segment (own image)

Here it is visible that the unregulated rental dwellings offer more quality than the unregulated rental dwellings, but that there are also unregulated rental dwellings which are level with the regulated rental dwellings. There is some overlap between the two segments, but the majority of the unregulated rental dwellings are much larger than the regulated rental dwellings.

WOZ value: regulated versus unregulated rental segments

In figure 15 below, again the same thing has been done, but this time for the WOZ values these dwellings had in 2017. The WOZ value here is, as was discussed in section 5.1, a variable which represents the location of the dwelling.

The dwellings in the unregulated rental segment show a larger diversity in terms of WOZ value. Although there is some overlap between the two segments, the median WOZ value for the unregulated dwellings is higher the median of the regulated dwellings. In overall, the unregulated rental dwellings offer a much higher WOZ value.

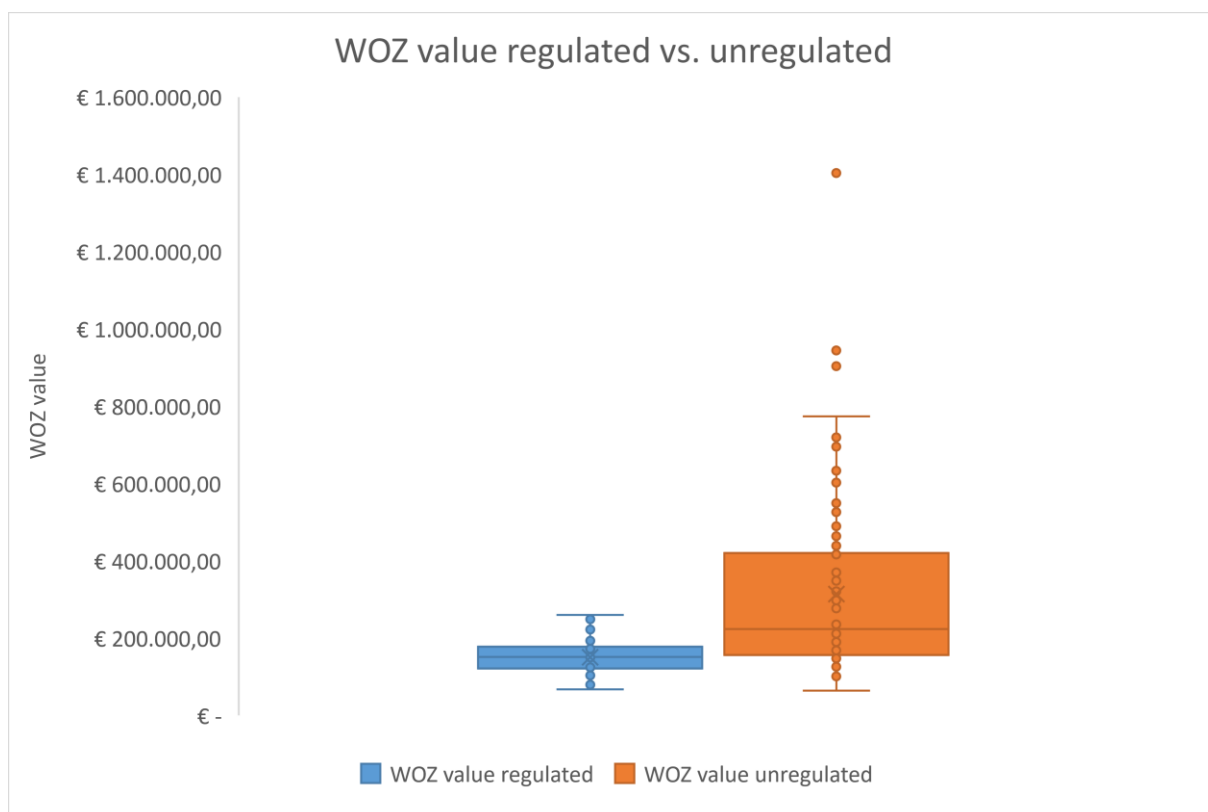


Figure 15: The WOZ values of the regulated and the unregulated rental segments (own image)

These three comparisons show that the unregulated rental dwellings are more expensive, but in general also offer more quality than those offered in the regulated rental market, in terms of dwelling characteristics as well as location characteristics. In terms of rental price, the unregulated rental dwellings are priced higher than the regulated rental dwellings, which was to be expected. What is interesting concerning the rental prices is that the majority of the unregulated rental dwellings are out of reach for middle income households. The quality comparisons yield more interesting results. Here more overlap can be found between the two segments than in the price comparison, which means that higher priced dwellings in the unregulated rental segment do not necessarily offer more quality than dwellings in the unregulated rental dwellings do. This indicates that if households in the regulated rental segment are looking to move to a higher quality dwelling, a considerable jump in rental price needs to be made. To find out if this is the case, a price-quality comparison has been performed, of which the results can be found below.

Price-quality ratios: regulated versus unregulated rental segments

The price-quality ratio analysis which has been conducted shows what dwelling quality a tenant can expect to receive for a dwellings respective rental price. This is first done for the dwelling surface area, after which it has been done for the WOZ value. The WOZ value is used as a variable that describes the location quality aspects of the dwellings in the two segments.

In figure 16, this is done for the dwelling surface area. Even though the unregulated rental dwellings do offer more dwelling surface area than the regulated rental dwellings, the price of one square meter of surface area in the unregulated rental segment is lower than it is in the regulated rental segment. For the regulated rental segment, the median for the rental prices is €7,95 per square meter, while the in the unregulated rental segment it's €14,75, nearly twice as high.



Figure 16: Price per square meter for the regulated and the unregulated rental segments (own image)

In figure 17, the same thing is done for the WOZ value of the dwellings.

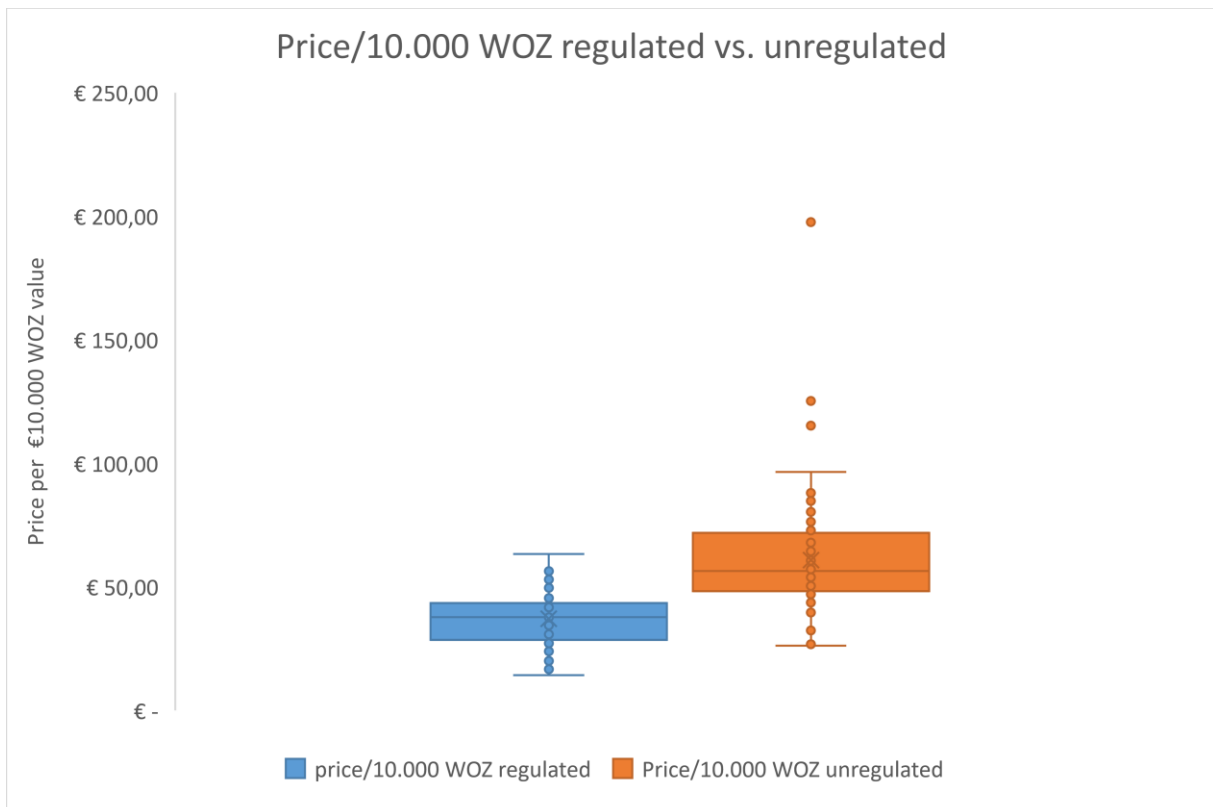


Figure 17: Price per €10.000 WOZ value for the regulated and the unregulated rental segments (own image)

Again, it becomes clear that in the regulated rental segment, the price-quality ratio is more beneficial than it is in the unregulated rental dwellings. Here the median for what price per €10.000 WOZ value is €37,78 for the regulated rental segment, and €56,48 for the unregulated rental segment.

This supports the statement made earlier; although the unregulated rental segment offers considerably more quality than the regulated rental segment does, it comes at a much higher price.

Conclusion: the regulated versus the unregulated segments

From the rental price comparison it becomes clear that there is not much supply in the unregulated rental segment that connects to the supply in the regulated rental segment in terms of price. Most of the supply in the unregulated rental segment is priced above €1000, and is therefore out of reach for middle income households. The small portion of unregulated rental dwellings that are accessible to middle income households are not reserved for middle income households, which means that middle income households also face strong competition from higher income households looking for affordable dwellings. From comparison of the quality aspects we learn that there is very little overlap between the regulated and the unregulated rental segments in terms of dwelling quality (based on the surface area analysis) and location quality (based on the WOZ value). The majority of the unregulated rental dwellings are of higher quality than the regulated rental dwellings.

From the comparison of the price/quality ratios it becomes clear that, while a higher dwelling quality can be found in the unregulated rental segment, the increase in dwelling price associated with this increase in quality is considerable. The difference between the rental prices of the two segments is larger than the difference are in terms of quality. The next step in this analysis is to find out how the intermediate rental segment introduced by Dudok Wonen fits in the supply which has been found in the region.

6.2 Introducing the intermediate rental segment to the comparison

The analysis performed in the previous section has shown that the unregulated rental dwellings are generally of higher quality than the unregulated rental dwellings, but that they are also more expensive. However, the price-quality analysis also revealed that the price-quality ratio in the regulated rental segment is higher, meaning that the increase in quality comes at a considerable increase in costs for tenants. Dudok Wonen's goal with the addition of the intermediate rental segment was, as discussed in section 2.3, to introduce supply for middle income households which offers more quality than the regulated rental dwellings do, against a price which is more suitable for middle income households.

In order to find out how the affordable unregulated rental dwellings fit in these segments, the same analysis is performed, but this time with the affordable unregulated rental dwellings included.

Rental price: regulated versus unregulated versus intermediate rental segments

In figure 18, the dwelling rental price is presented, with the intermediate rental segment added in in grey. The affordable unregulated rental dwellings appear to be priced higher than the regulated rental dwellings, but lower than the majority of the unregulated rental dwellings, as was Dudok Wonen's intention. The added value of this comparison is that it shows that the intermediate segment rental price is located in the price range where the unregulated rental segment appears to be lacking.

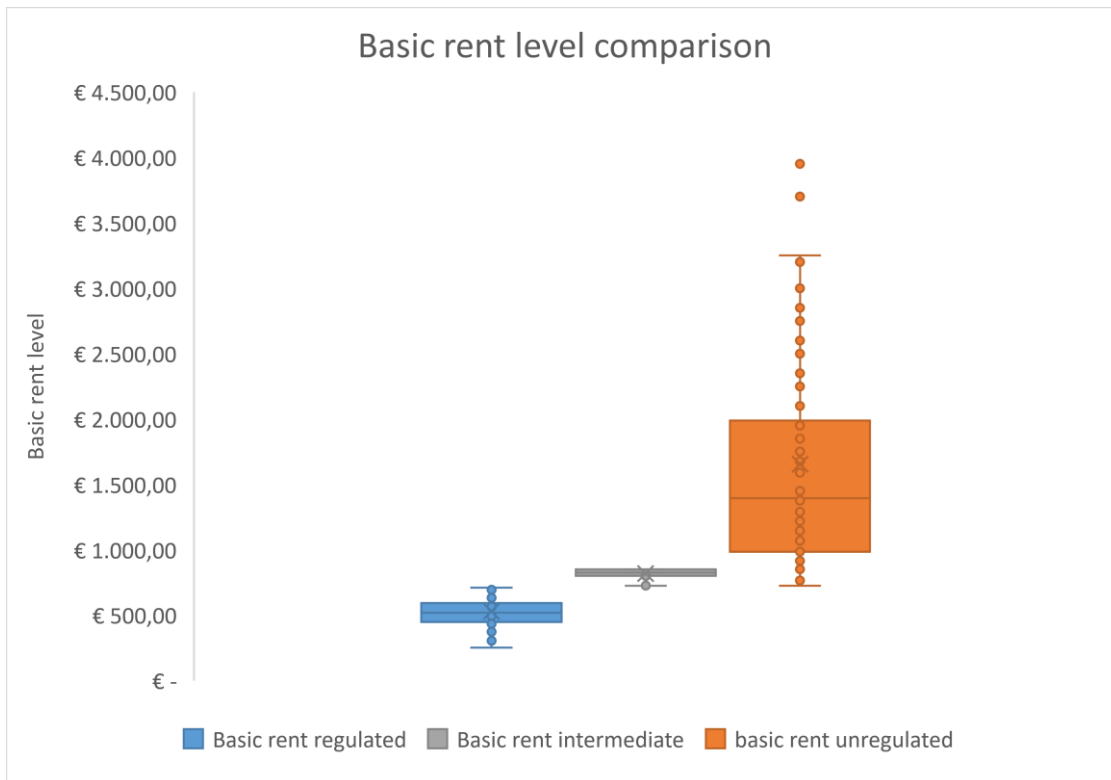


Figure 18: basic rent levels of the regulated, intermediate and unregulated rental segments (own image)

This effect is visualised by in figure 19, in which all found rental prices have been plotted. The area of interest for middle income households (which starts where the regulated rental segment ends, and ends at the €1000 rent limit advised by Nibud) is substantially larger with the addition of the intermediate segment.

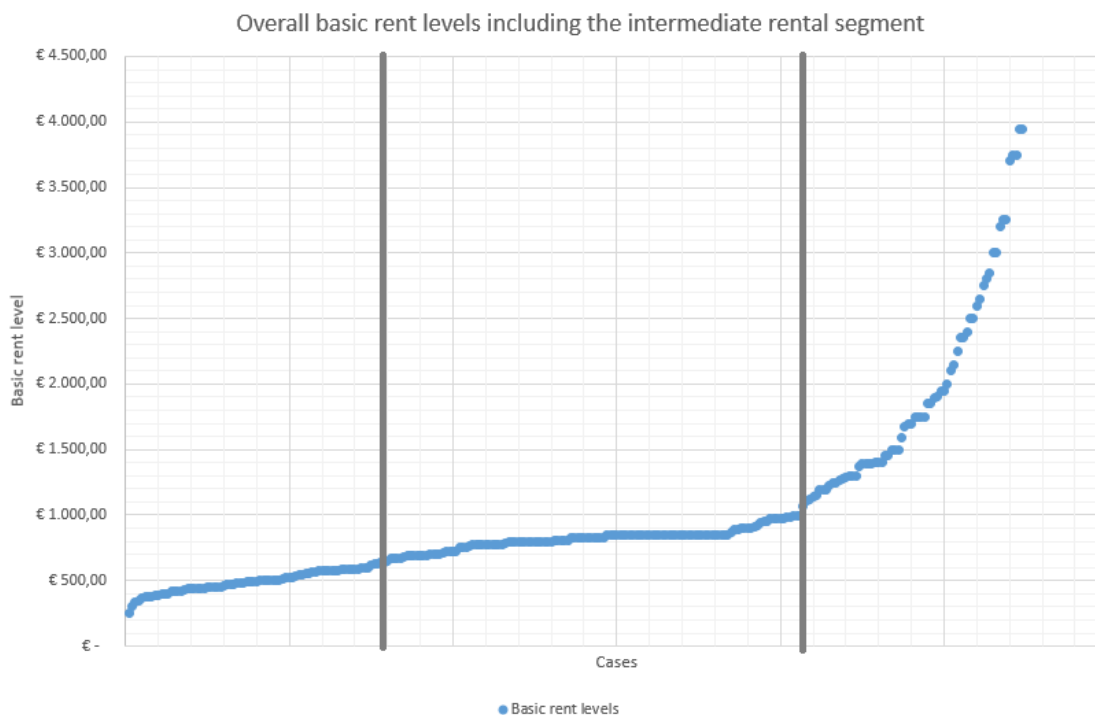


Figure 19: Overall basic rent levels including the intermediate rental segment (own image)

Here the limitations of the gathered data need to be noted though. The fact that 100 dwellings per segment were chosen, combined with the limitations in rental price these segments have make the outcome of these plots unsurprising. However, the plots do still show that, without the addition of the intermediate segment, only a small portion of the rental market is accessible to middle income households, and that with the addition for middle income households, the number of options available to middle income households grows substantially. Here it is also important to note that the intermediate rental dwellings offered by Dudok Wonen are available only to middle income households, meaning that there is less competition.

Now that we know how the rental prices of the intermediate rental segment affect the options in the regional housing market, we need to find out if the dwellings are of higher quality than the regulated rental dwellings.

Dwelling surface: regulated versus unregulated versus affordable unregulated

In figure 20 below, the dwellings surface areas are displayed in a similar fashion as was done in section 6.1.

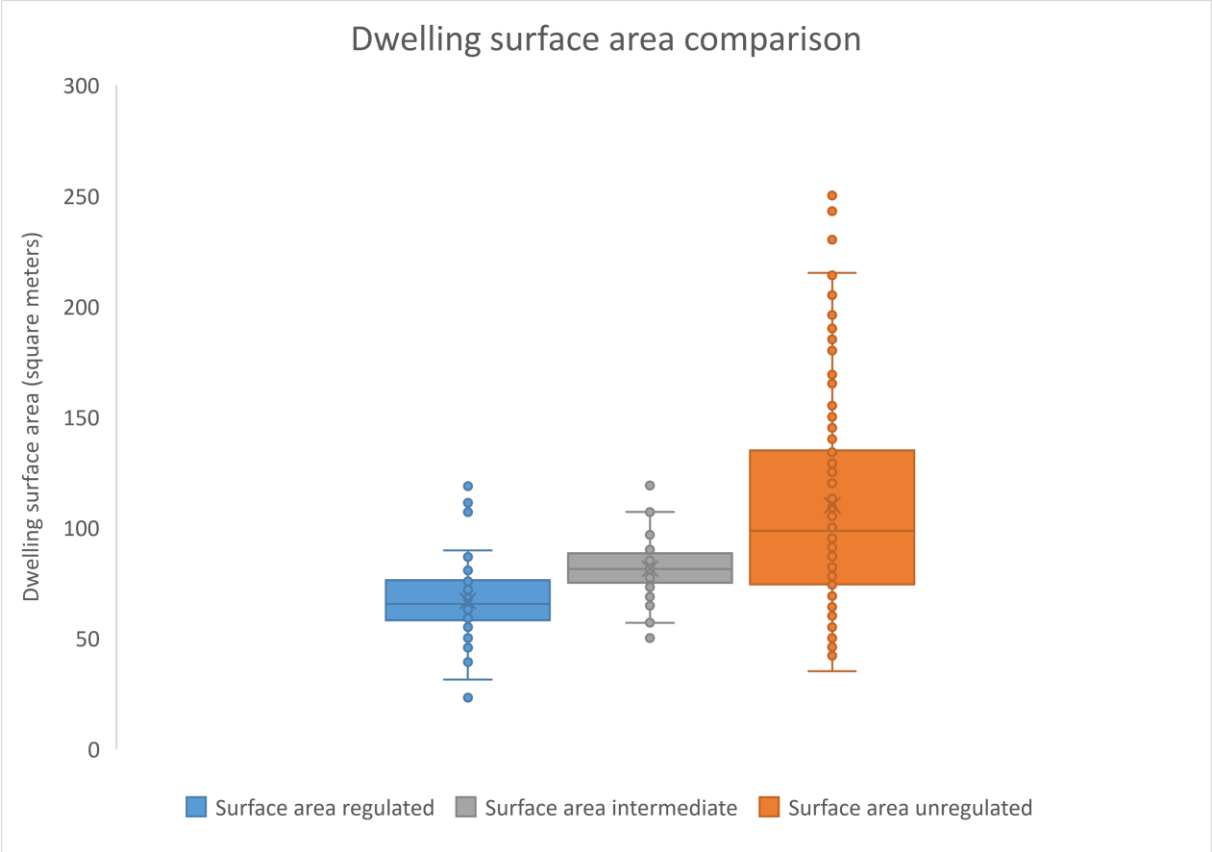


Figure 20: Dwelling surface area comparison for the regulated, intermediate and unregulated rental segment dwellings (own image)

From this plot it becomes clear that the dwellings in the affordable unregulated segment are larger than those found in the regulated rental segment. The quartiles here indicate that most of the intermediate rental dwellings are larger than most of the regulated rental dwellings. The dwellings found in the unregulated rental segment generally offer a much higher dwelling surface area, although there is some overlap between the three segments. What’s also interesting here is that the unregulated rental segment shows a much larger dispersion in dwelling sizes than the other two segments do. Furthermore, the quartiles show that even though the intermediate rental segment is

generally of higher quality than the regulated rental segment, the difference for most of the dwellings is not that great.

WOZ value: regulated versus unregulated versus affordable unregulated

The next variable examined here is the WOZ value. Figure 20 below shows how the WOZ value of the affordable unregulated rental dwellings stacks up against the WOZ values found in the regulated and unregulated segment.

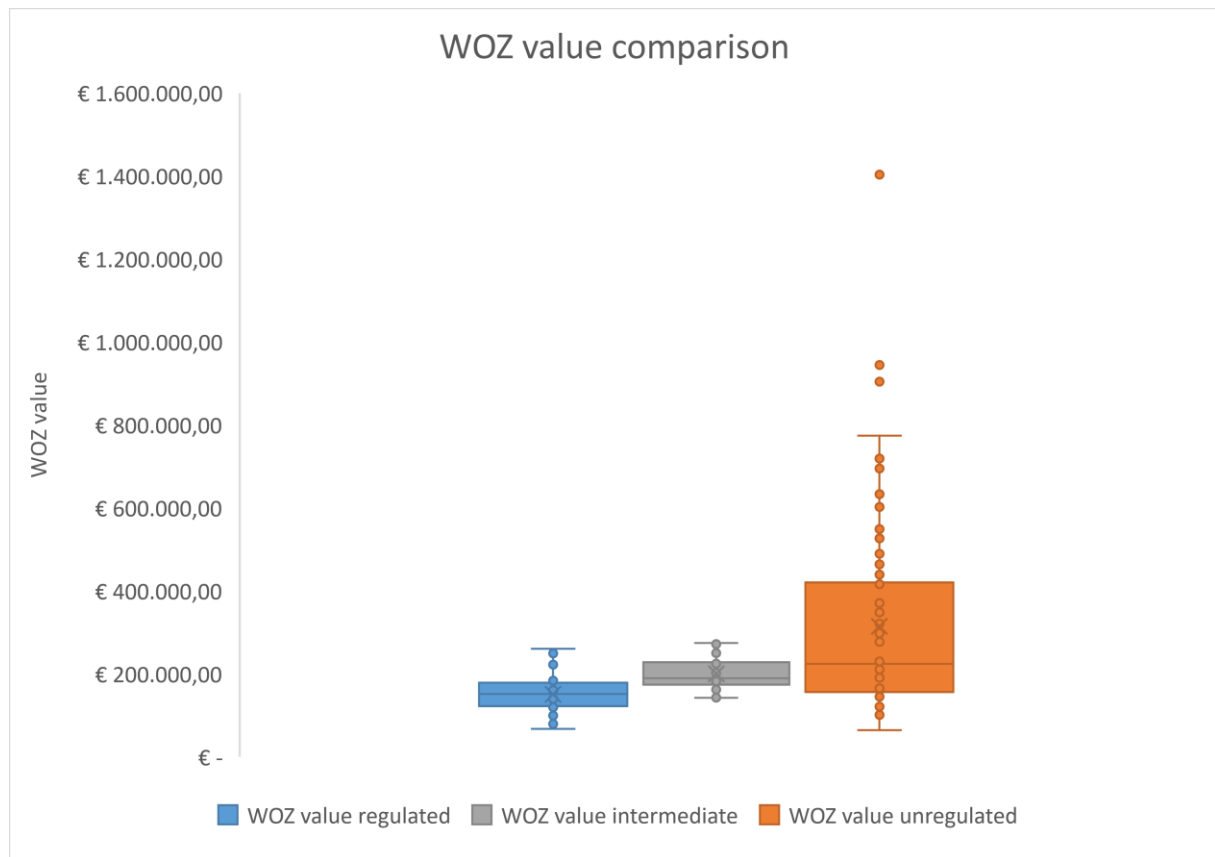


Figure 21: WOZ value comparison for the regulated, intermediate and unregulated rental segments (own image)

The plot found in figure 21 yields results that are similar to the dwelling surface comparison. The intermediate rental segment features WOZ values that are similar to the lower half of the unregulated rental segment, while the majority of cases in the intermediate segment feature a higher WOZ value than the majority of dwellings in the unregulated rental segment do. The quality comparisons show that the intermediate rental segment introduced by Dudok Wonen is generally of higher quality, both in dwelling aspects (based on the surface area comparison) and location aspects.

Next we need to find out how the price-quality ratios relate to one another. From the analysis in the former section we learnt that the price-quality ratios in the regulated and the unregulated rental segment are quite different, and that for tenants, the regulated rental segment is much more beneficial. How does the intermediate segment fit into this?

Price-quality ratios: regulated versus unregulated versus affordable unregulated

In figure 22, the price per square meter surface area is displayed for all three segments. Here it becomes clear that the regulated rental segment features the lowest price per square meter, and that the unregulated rental segment features the highest price per square meter. The intermediate

segment features a higher price per square meter than the regulated rental segment does, but a lower price per square meter than the unregulated rental segment offers.

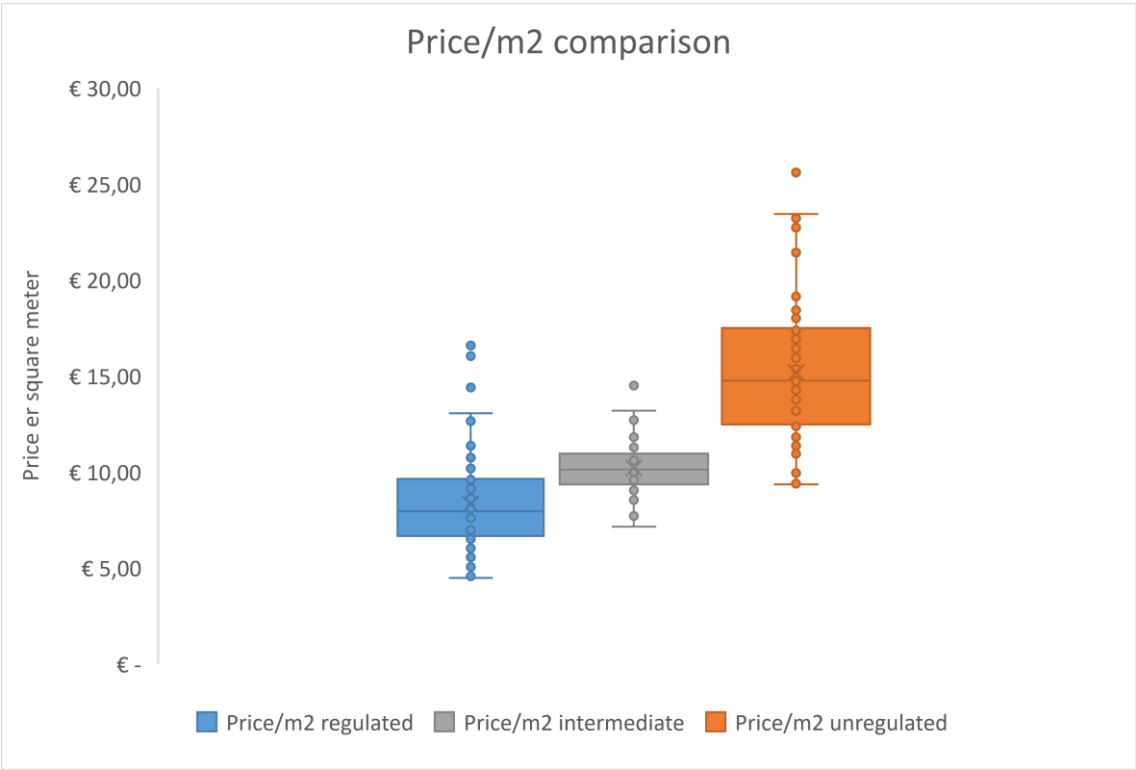


Figure 22: Price per square meter comparison for the regulated, intermediate and unregulated rental segments (own image)

In figure 23 the same has been done for the WOZ value found in the three segments.

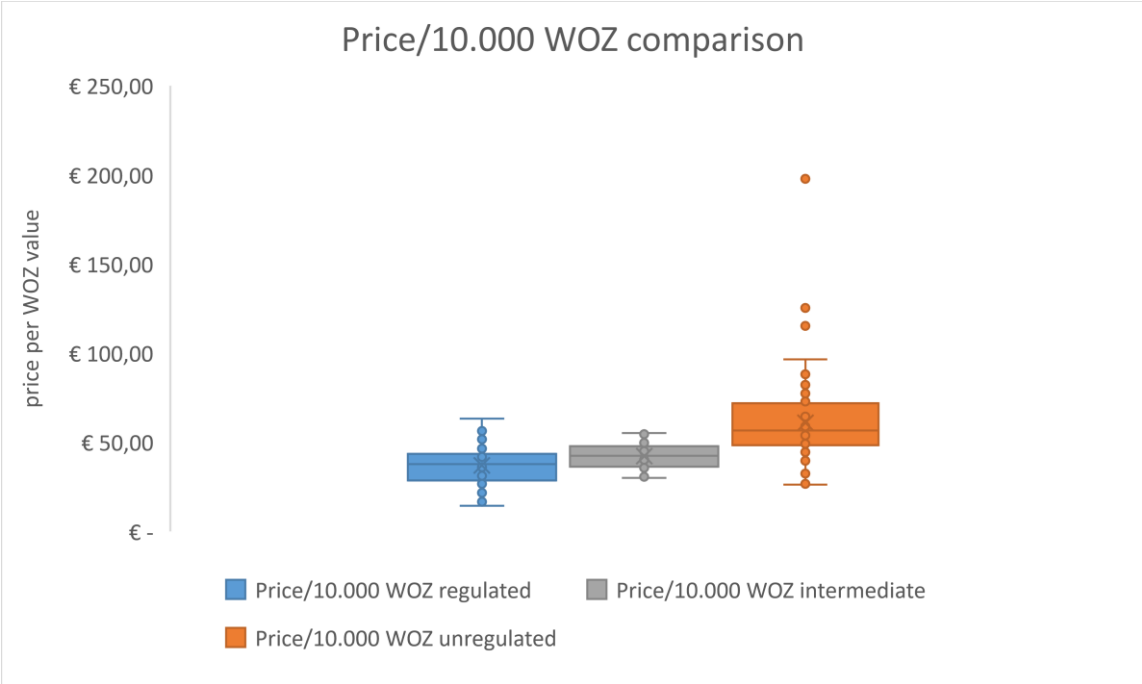


Figure 23: Price per €10.000 WOZ value for the regulated, intermediate and unregulated rental segments (own image)

This yielded in a similar result. The intermediate rental segment is more beneficial for tenants than the regulated rental segment, but less beneficial than the unregulated rental segments.

Conclusion: the introduction of the intermediate rental segment

With the introduction of the intermediate rental segment, options for middle income households in the regional housing market increase. In terms of price, this segment is situated in a region where the unregulated rental segment was lacking. The lack of competition from higher income households the middle income households face for the intermediate segment also plays a large role in this. It is now also clear that the intermediate segment generally offers more quality than the regulated rental segment does, both in terms of dwelling aspects (based on the dwelling surface comparison), as well as location aspects (based on the WOZ value comparison).

In terms of price-quality ratio, the intermediate segment is more beneficial for tenants than the unregulated rental segment. The regulated rental segment, however, still is most beneficial.

6.3 Differences between the three segments

The unregulated rental dwellings offer the best price-quality ratios in both dwelling aspects and location aspects. However, this segment also shows the lowest quality in both aspects. The unregulated rental segment offers the highest quality, which also comes with the highest costs. The intermediate segment offers more quality than the regulated rental segment, but less quality than the unregulated rental segment. The costs for this quality are higher than the regulated rental segment, but lower than the unregulated rental segment. Can these differences be further explained?

To find out if this can be done, two other available variables are used; the number of rooms per dwelling, and the status score of the neighbourhood the dwelling is located in. While the number of rooms a dwelling contains is pretty straightforward, the status score needs some introduction.

The neighbourhood status scores are calculated by the SCP (Sociaal Cultureel Planbureau), and indicate the social status of a neighbourhood. This score does not reflect the level of desirability or popularity of a neighbourhood, instead, it reflects the inhabitants; their education and income level, and their position on the job market. The status score itself is a comparison between neighbourhoods; the average is set at 0, negative or positive status scores indicate if the neighbourhood is above average or below average. Although the SCP indicates that the status score itself is not an indicator for neighbourhood desirability or popularity, the literature review (section 2.3 in particular) taught us that households generally like to reflect their social status with the dwelling their residing in, and choose to consume housing services based on their income level. Basically, households tend to move to dwellings that reflect their social status. (SCP, 2018)

This means that neighbourhoods with higher social status scores feature households consuming more housing services, which in turn indicates that the dwellings in these neighbourhoods feature more housing services than neighbourhoods with lower status scores. The relationship between status score and WOZ value has further been explored in the plot found in figure 24 below.

From this plot we learn that dwellings with a higher SCP social status score generally have a somewhat higher WOZ value. This implies that the SCP social status score can be used as a variable to represent the neighbourhood quality. The same type of analysis is performed for these variables. The results are shown below, first for the number of rooms per dwelling, and second for the status score of the neighbourhood.

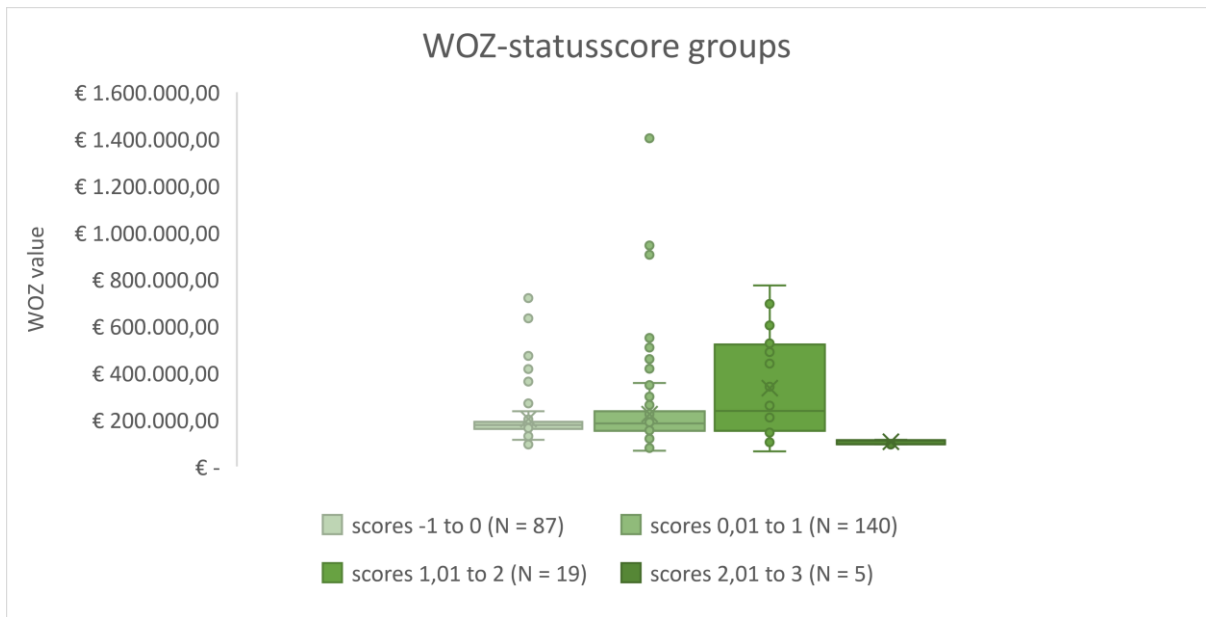


Figure 24: Distribution of WOZ value per SCP status score category (own image)

Number of rooms per dwelling in the different segments

In figure 25, the number of rooms per dwelling have been plotted for all dwellings in all three segments.

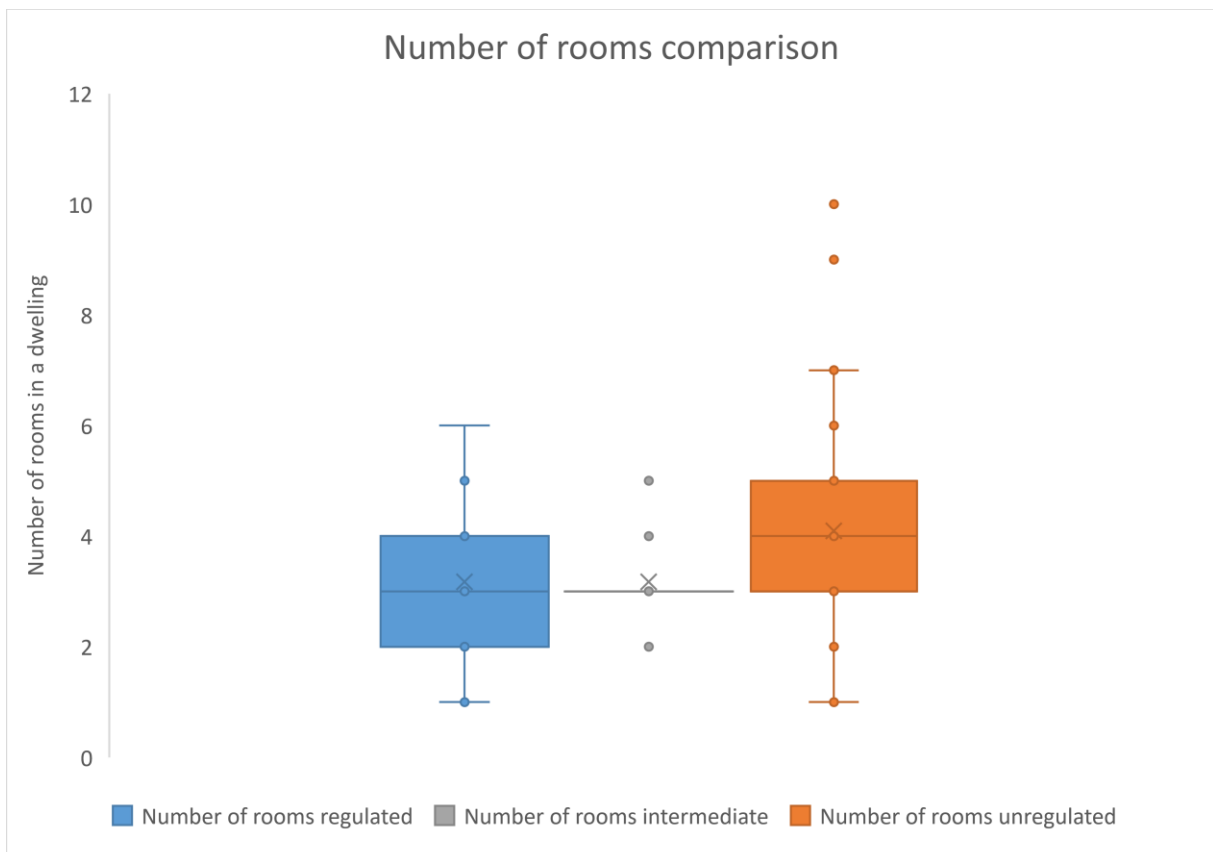


Figure 25: A comparison of the number of rooms per dwelling for the regulated, intermediate and unregulated rental segments (own image)

From this plot we learn that there is a difference in terms of number of rooms between dwellings in the regulated and the intermediate segment. The regulated rental dwellings have more dwellings with

4 or more rooms than the dwellings in the intermediate segment, although the median score for both segments is 3 rooms. The unregulated rental segment dwellings have a median score of 4 rooms per dwelling.

In figure 26, the SCP status scores for the dwellings have been plotted.

Neighbourhood status score per segment.

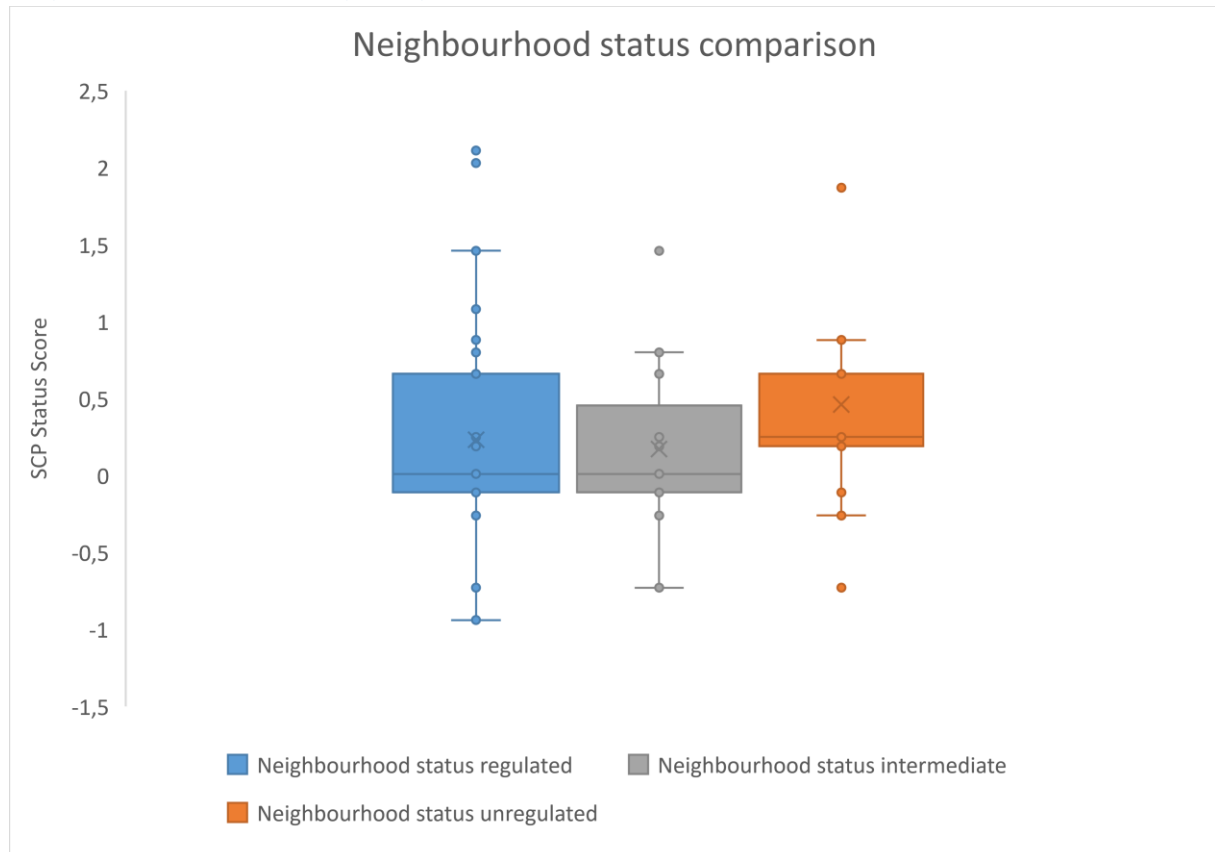


Figure 26: A comparison of the SCP status score for the regulated, intermediate and unregulated rental segments (own image)

Again, the regulated and intermediate segment share the same median score. The unregulated rental dwellings have a higher median score, indicating that they are situated in neighbourhoods with higher status scores.

The price-quality ratios explained.

Price differences between the segments can partly be explained by the nature of the segments themselves. The regulated and intermediate rental segments feature rental price restrictions either by law (which is the case in the regulated rental segment) or by the owner of the dwellings (which is the case in the intermediate rental segment owned by Dudok Wonen). Prices of unregulated rental dwellings are not restricted by law, but are affected by market influences like supply and demand. Dwelling quality differences can partly be explained by the differences in dwelling size per segment. This has been covered in sections 6.1 and 6.2 already. The regulated rental dwellings generally are smaller than the intermediate rental segment dwellings, which in turn are generally smaller than unregulated rental dwellings. From the analysis performed in this section we learn that, besides being generally larger, the unregulated rental dwellings also offer more rooms than the regulated and unregulated rental segment do.

Generally speaking, the WOZ value and SCP status scores are connected to one another; a dwelling in a higher scoring neighbourhood generally has a higher WOZ value. This means that the SCP status score can be used as a determinant for neighbourhood quality. This opened up an opportunity to compare neighbourhoods with another variable than the WOZ value. From this comparison we learnt that there were no substantial differences between the regulated and the intermediate rental segments in terms of number of rooms or neighbourhood status score. However, from the former analyses we learnt that there was a difference between the dwelling sizes of the regulated and the intermediate segments. The established quality difference between the regulated and the intermediate rental segment are likely to be based on the differences in dwelling size.

6.4 Synthesis: comparing the different segments

The regulated rental dwellings are the most affordable dwellings in the analysis. This is logical, as the rent levels of these dwellings is capped at €710,68, where the other two segments that were examined in this analysis start at this price level. The unregulated rental segment features a very broad range of rental prices, of which most dwellings are priced above the €1000 mark, and therefore out of reach for middle income households. There is a very limited number of dwellings that connect to the regulated rental dwellings.

The middle income households have a relatively small portion of the rental housing market which is available to them. In this small portion, the middle income households also face competition from higher income households. The regulated rental segment offers both a lower rental price as well as a lower dwelling quality than the unregulated rental segment. However, in terms of price-quality ratio, the regulated rental segment comes out on top.

The addition of the intermediate rental segment means that there is more supply for middle income households in the regional housing market, as the rental price this segment offers is suitable for their income level. The fact that this intermediate segment is reserved for middle income households only is another plus, it means that the middle income households experience less competition from higher income households when looking for a dwelling.

In terms of dwelling quality, the intermediate segment is ranked higher than the regulated rental segment, but lower than the unregulated rental segment. This difference appears to be based mostly on dwelling size, as the differences in the neighbourhoods is not as large. When it comes to price/quality ratios, the intermediate segment is, well, an intermediate segment. This segment offers a more beneficial price/quality ratio than the unregulated rental segment does, but a less beneficial price/quality ratio than the regulated segment does. With these findings it can be concluded that the intermediate rental segment is in line with Dudok Wonen's goal, which was to provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment, in order to initiate moving chains amongst middle income households from the regulated to the unregulated rental segment.

In order to find out how the addition of the intermediate rental segment contributes to initiating filtering chains, we need to take a closer look at the portion of the unregulated rental segment which the middle income households are able to move to. This is done in the following section of this report.

6.5 The addition of an intermediate rental segment: implications for 'skewed tenants'

In this section, the implications of the addition of an intermediate rental segment for middle income households currently residing in regulated rental dwellings (a 'skewed tenant', but from here on referred to as 'the middle income household') are explored. To do this, the regional housing market is

examined from the perspective of a fictional middle income household, looking to move from their regulated rental dwelling to an unregulated rental dwelling.

For the first part of this analysis, a fictional middle income household is introduced that wishes to move taking primary action. The household's middle income level is taken into account, which means that for this part of the analysis, only the unregulated dwellings with rent levels up to €1000 (based on the Nibud rent level advice for middle income households mentioned in section 2.2) have been examined. What options are available for the middle income household in the unregulated rental market, and what does the addition of the intermediate rental segment implicate for the middle income household? Is the household able to find attractive options to move to?

In the second part of this analysis, a fictional middle income household is introduced that has to take secondary action. What if the household *has* to move to a larger dwelling, or to a dwelling with one more room? For this second part, the household's middle income level is not taken into account, and all unregulated rental dwellings are examined.

The middle income household taking primary action

As mentioned earlier, here the fictional middle income household is looking to move following primary action. The household has to find a dwelling that is suitable for their income level, and can therefore only take unregulated dwellings with a rental price up to €1000 into account. For this middle income household, the options in terms of rental price are plotted in figure 27 below.

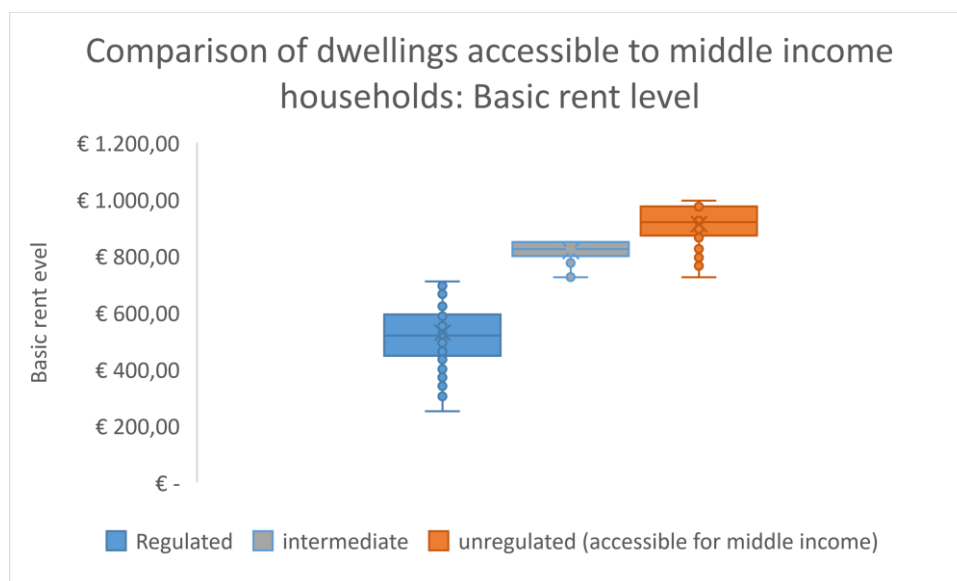


Figure 27: Accessible dwellings for middle income households (both in the intermediate and unregulated rental segments) compared to the inaccessible regulated rental segment in terms of basic rent level (own image)

From this plot it becomes clear that the middle income household has to make a considerable jump in rental price when they want to move. There are unregulated rental dwellings which are suitable for their income level, but most of this supply is found at the high end of the €710,68 to €1000 price range. With the addition of the intermediate rental segment, the jump in rental price which the middle income household has to make is less harsh, even though the intermediate rental supply is also predominantly located near the upper bound of their price range.

To compare dwelling quality, the dwelling surface area is examined. The dwelling surface area for the three segments is plotted in figure 28.

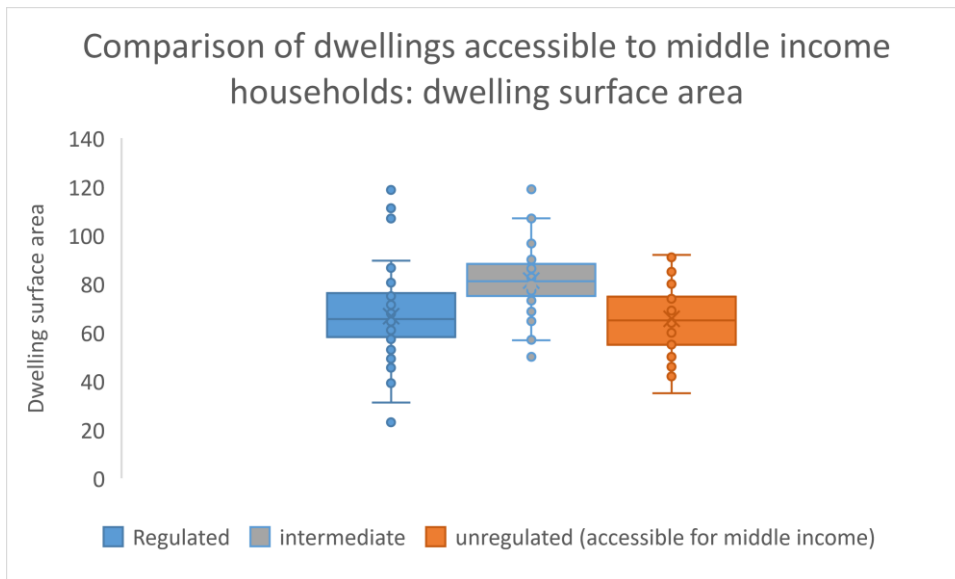


Figure 28: Accessible dwellings for middle income households (both in the intermediate and unregulated rental segments) compared to the inaccessible regulated rental segment in terms of dwelling surface area (own image)

From this plot it becomes clear that the middle income household will have a hard time finding a considerably larger dwelling in the unregulated rental segment. The regulated rental segment and the part of the unregulated rental segment which is reachable for the middle income household have comparable characteristics when it comes to the dwelling surface area. The increase in price, would not make the unregulated rental dwellings attractive options for the middle income household.

Here, the addition of the intermediate rental segment would be an outcome for our middle income household. The increase in rental price is less harsh than it would be in the unregulated rental segment, and the intermediate rental segment features considerably larger dwellings than both the unregulated and the regulated segment do. To compare the location of the dwellings, the WOZ value is examined. The WOZ value for the three segments is plotted in figure 29 below.

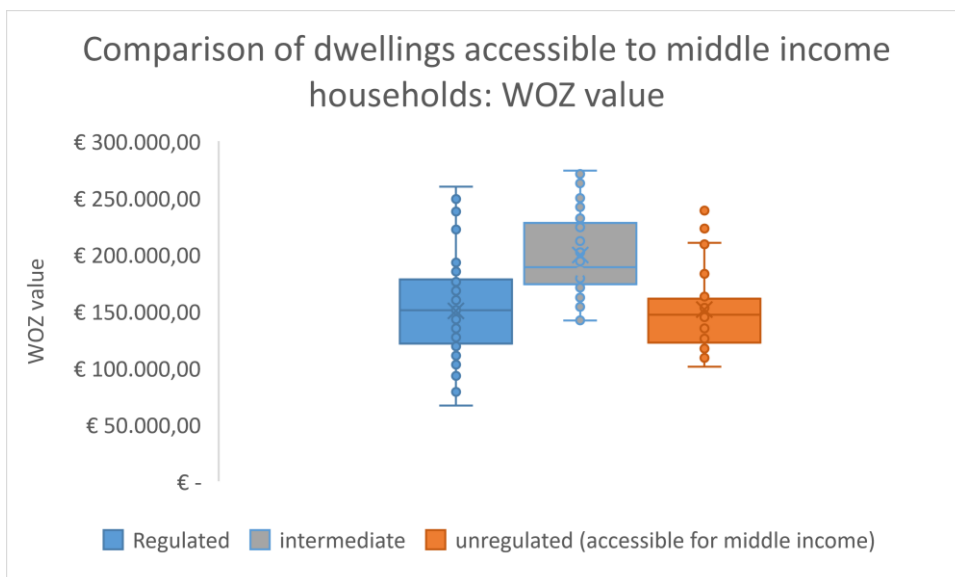


Figure 29: Accessible dwellings for middle income households (both in the intermediate and unregulated rental segments) compared to the inaccessible regulated rental segment in terms of WOZ value (own image)

The unregulated rental segment features the same median as the regulated rental segment does. This means that the middle income household will struggle to find a dwelling with a higher WOZ value in the unregulated rental segment when moving. In the intermediate rental segment the WOZ values are considerably higher.

Here, the addition of the intermediate rental segment again would be an outcome for the middle income household. Dwellings in the unregulated rental segment are more expensive, while the quality level in terms of WOZ value remains the same. The intermediate rental segment does feature a higher quality level, and offers a rental price increase that isn't as harsh as the unregulated rental segment does.

For middle income households looking to take primary action when moving from the regulated to an unregulated rental segment, the intermediate segment is an outcome. The increase in rental price isn't as harsh as it is when these households would be moving to the unregulated rental segment, and higher quality dwellings are available in the intermediate rental segment.

The middle income household taking secondary action

As mentioned earlier, here the middle income household has to move, meaning that they are taking secondary action. Three scenarios for the middle income household will be examined. In scenario one, the household has to move as they need a larger dwelling. In scenario two, the household has to move as they need one more room in their dwelling, and in scenario three, the household has to move to a better location.

In figure 30 below, two plots can be found which relate to scenario 1. In both plots, the rental prices for smaller dwellings in the regulated rental segment are plotted together with rental prices from somewhat larger dwellings in the intermediate and unregulated rental segments. In the left plot this has been done for regulated rental dwellings below 60 square meters and intermediate and unregulated rental dwellings with a surface area between 60 and 80 square meters. In the plot to the right, this has been done for regulated rental dwellings with 60 to 80 square meters of surface area, and intermediate and unregulated rental dwellings with a surface area between 80 and 100 square meters.

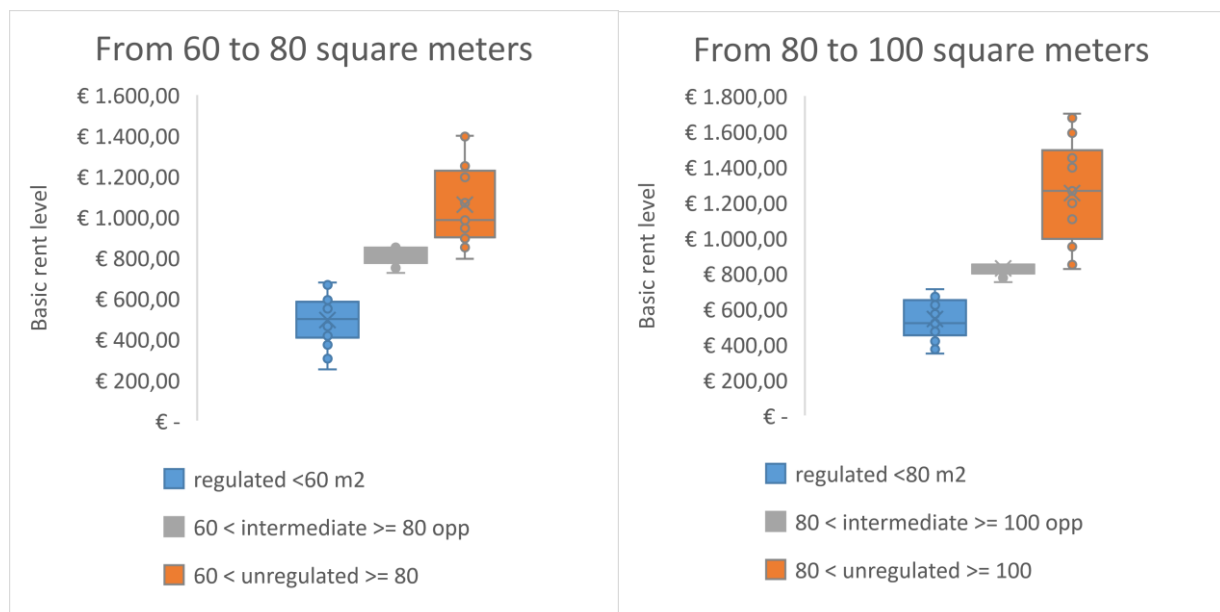


Figure 30: The price increase associated with quality increases in terms of dwelling size for middle income households that desire to move from the regulated to the unregulated rental segments (own image)

From this plot we learn that middle income households that have to move to a larger dwelling experience a substantial price increase when they move to either the intermediate or the unregulated rental segment. Most of the options that this household would find in the unregulated rental segment cost more than €1000 per month, meaning that these options are a financial burden for the middle income household. The price increase when moving to the intermediate rental segment is less harsh than it would be when the middle income household would be moving to the unregulated rental segment.

In figure 31 below, two plots can be found which relate to scenario 2, in which the middle income household has to move to a dwelling with one more room. In the plot to the left regulated rental dwellings with two rooms are compared to intermediate and unregulated rental dwellings with three rooms. In the plot to the right, regulated rental dwellings with three rooms are compared to intermediate and unregulated rental dwellings with two rooms.

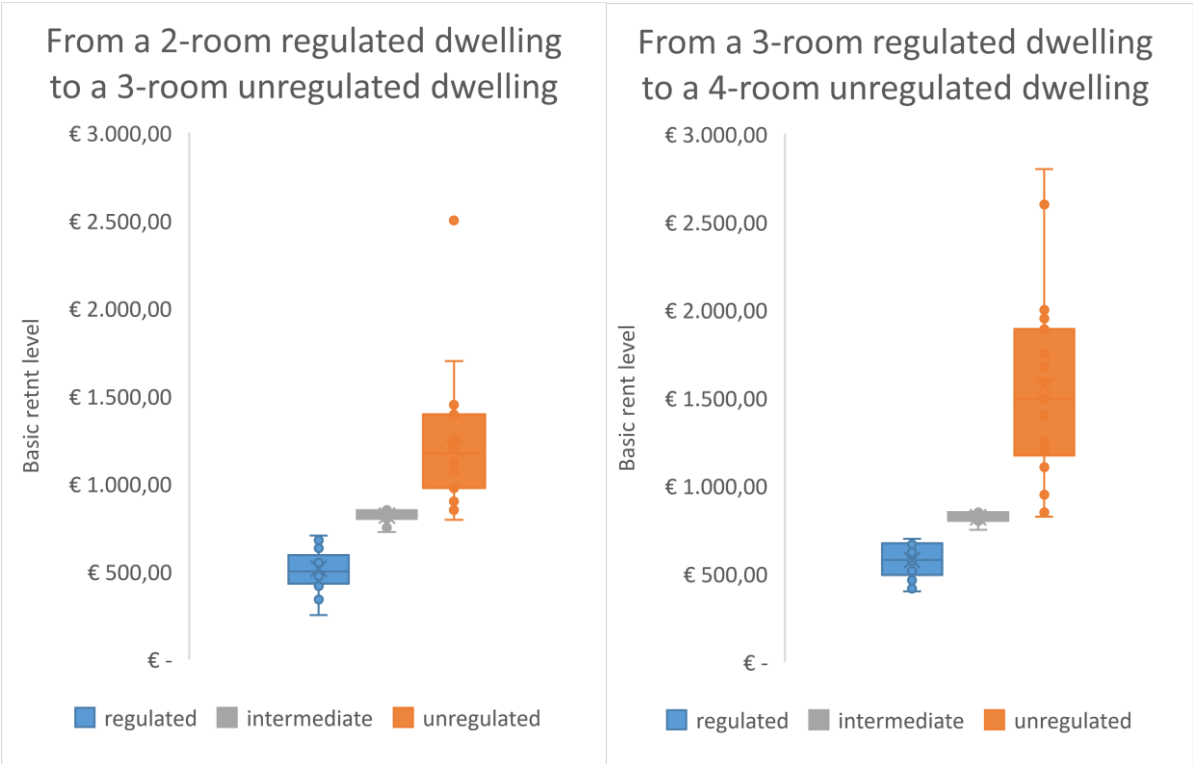


Figure 31: The price increase associated with quality increases in terms of number of rooms for middle income households that desire to move from the regulated to the unregulated rental segments (own image)

These plots again show that the price increase for the middle income households are substantial. A middle income household which has to move from a regulated dwelling with two rooms to an unregulated dwelling with three rooms will find that three quarters of the supply found in the unregulated rental segment is priced above the €1000 mark, and is therefore out of reach for them.

For households that *have* to move from a regulated dwelling with three rooms to an unregulated rental dwelling with four rooms, the increase in rental price is larger. There is almost no supply in the unregulated rental segment which is suitable for their income level. The intermediate rental segment would be an outcome for the middle income household, as the dwellings with an extra room are offered at a rental price which is suitable for the middle income household. It should be noted though, that number of intermediate rental dwellings with four rooms is limited (as can be seen in figure 25, where the number of rooms per segment are plotted).

For scenario three, the rental prices have been plotted based on the SCP status score. The middle income household has to move to a higher ranked neighbourhood. For this analysis, a distinction has been made between below average and above average neighbourhoods. The middle income household has to move from a regulated rental dwelling situated in a neighbourhood with a below average SCP status score to an unregulated rental dwelling in a neighbourhood with an above average SCP status score. This plot can be seen in figure 31 below.

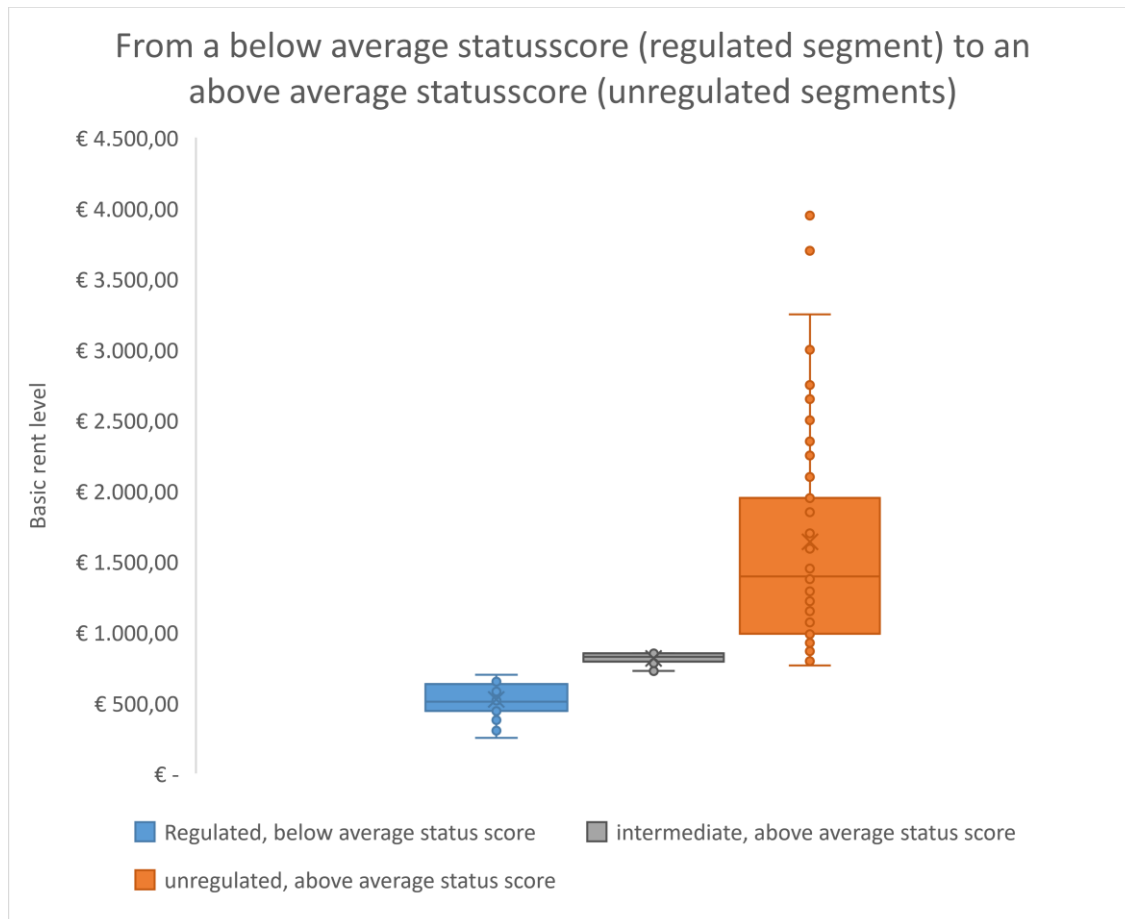


Figure 32: The price increase associated with quality increases in terms of neighbourhood status score for middle income households that desire to move from the regulated to the unregulated rental segments (own image)

The middle income household will struggle to find an unregulated rental dwelling with an above average SCP status score which is affordable for them. Most of the unregulated rental dwelling supply is priced higher than the €1000 mark, and is therefore too expensive for the middle income household. Again the intermediate segment would be an outcome for the middle income household.

Summary/conclusion

For middle income households looking to take primary action when moving from the regulated to an unregulated rental segment, the intermediate segment is a solution. The increase in rental price isn't as harsh as it is when these households would be moving to the unregulated rental segment, and higher quality dwellings are available in the intermediate rental segment than compared to the section of the unregulated rental dwellings which are viable options for middle income households. For middle income households that have to move from the regulated segment to the unregulated segment taking secondary action, there are not much options available. Most of the dwellings in the unregulated rental segment are too expensive for the middle income household to be considered viable options in the housing market. Furthermore, the options that are available to the middle income household in the

unregulated rental segment are also available to higher income households, meaning that there is a lot of competition for these dwellings.

In overall, the intermediate rental segment here is an outcome for the middle income household. In the intermediate rental segment, dwellings with an increase in size, number of rooms or neighbourhood quality are available in this segment, and are offered at a rental price which is suitable for the middle income household.

It should be noted, though, that the number of high-quality dwellings in the intermediate rental is limited. This is in line with the outcomes of the comparisons described in section 5.1.2, where we learnt that the intermediate rental segment is generally of higher quality than the regulated rental segment, but that the difference between the regulated and the intermediate rental segment is not that great.

6.6 Conclusion: the quantitative price/quality analysis

From the analysis described in section 6.1 we learn that the majority of the unregulated rental dwellings are of higher quality than the regulated rental dwellings. The higher dwelling quality in the unregulated rental segment comes at a substantial price increase compared to the regulated rental segment. The regulated rental segment holds the lowest quality dwellings, both in terms of dwelling aspects and location aspects. In terms of price/quality ratio, however, the regulated segment turns out to be most beneficial for tenants. While the unregulated rental segment holds the highest quality dwellings, both in terms of dwelling and location aspects. The price/quality ratios here are least beneficial for tenants. The difference in rental price between the two segments is larger than the differences in quality aspects, indicating that there is a price-quality gap. It is now also clear that there is not much supply in the unregulated rental segment that connects to the regulated segment in terms of price. Most of the supply in the unregulated rental segment is priced above the €1000 mark, and is therefore out of reach for middle income households. This means that only a small portion of the unregulated rental dwellings are viable options for middle income households. In this small portion of the housing market, middle income households also face competition from higher income households that are looking for affordable dwellings.

From the analysis performed in section 6.2, it became clear that the intermediate rental segment is true to its name, being intermediate in terms of price, dwelling and location quality aspects, and price/quality ratio. The intermediate rental segment, as offered by Dudok Wonen, appears to be a happy medium between the regulated and unregulated rental segments, and appears to be suitable to bridge the price-quality gap between the regulated and the unregulated rental segments. The addition of the intermediate rental segment also means that there are more dwellings which are suitable for middle income levels in the regional housing market. Next to this, the intermediate segment is reserved only for middle income households, which means that the competition from higher income households looking for affordable dwellings is negated. With the introduction of an intermediate rental segment for middle income households, the number of options middle income households have in the regional housing market increases.

From further comparisons (described in section 6.3) we learn that the difference in quality between the regulated and the intermediate rental segment is more likely to be based on dwelling aspects rather than location aspects. Dwelling surface area appears to be the dwelling quality aspect determining the quality difference, as there was no substantial difference in the number of rooms between the two segments. The unregulated rental segment appears to be situated in overall better neighbourhoods, while offering more surface area and rooms.

Section 6.5 reveals what implications the addition of an intermediate rental segment has for middle income households that are active in the regional housing market. Notable is the price/quality ratio of the options available to middle income households (rental prices up to €1000 basic rent per month). The options available to middle income households are more expensive than the regulated rental segment, but lack a superior dwelling quality compared to the regulated rental segment. The intermediate rental segment, as offered by Dudok Wonen, does make it possible for middle income households to experience an increase in dwelling quality when moving, while being more affordable than the options available in the unregulated rental segment. Even more notable is the increase in price that accompanies an increase in quality when middle income households desire to move out of the regulated rental segment (see figures 30 and 31). This analysis reveals that a household that desires to move to an unregulated rental segment dwelling with one extra room, or a dwelling with a small increase in available floor space, can expect to spend twice as much on rent. The intermediate rental segment makes dwellings with higher quality more accessible to middle income households. With the addition of the intermediate rental segment, middle income households looking to take primary action with moving will experience triggers to move, as the addition of the intermediate rental segment comes with reachable options for middle income households (in terms of price) that come with an increase in dwelling quality. In the unregulated rental segment alone, these options weren't found.

Based on these findings it can be concluded that the intermediate rental segment is in line with Dudok Wonen's goal, which was to provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment, in order to initiate moving chains amongst middle income households from the regulated to the unregulated rental segment. The intermediate rental segment effectively fulfils the role of a missing step in the regional housing market.

7. Analysis: the web-survey amongst social housing tenants.

In this chapter, the analysis of the web survey responses are discussed. The web-survey itself can be found in appendix A. It has been distributed amongst residents of the regulated rental segment dwellings offered by Dudok Wonen, in order to uncover the housing preferences of the middle income households amongst this population. Throughout this chapter, the reader will notice some variations in the number of cases (N) used to provide the information. Appendix B will shed some light on the how and why the N varies throughout this chapter. The middle or higher income group consists out of households which aren't eligible to move to another regulated rental dwelling, and have to move to an unregulated rental dwelling if they are planning on moving. This group forms the population used for the remainder of the analysis. How this group has been identified is shown in appendix C.

This chapter starts out with a brief overview of the overall survey results, giving an indication of the representativeness of the responses. In the next section, the housing preferences of the middle income households residing in the regulated rental segment dwellings offered by Dudok Wonen are uncovered, in order to find out to what extent the intermediate rental segment fits these preferences. This chapter then continues by uncovering why households want to move, and what role the price/quality ratio of their current housing situation plays in their desire to move.

7.1 Survey Results: a brief overview and representativeness of the responses.

This section starts off by revealing some numbers and figures concerning the total responses of the web-survey, after which it discusses if the response base is representative for the residents of Dudok Wonen's regulated rental dwellings. This is done through comparing the found income dispersion, and checking other results for skewness.

In total, the survey yielded 806 responses, which translates to a response rate of 26,5%, given that the survey has been sent to 3.043 households. Of these 806 responses, 645 have completed the survey, meaning that the overall completion rate is 80%. Web-surveys are notorious for achieving low response rates (as was discussed in section 5.2 of this report). The achieved response rate is large enough to perform a statistical analysis with. To check if the responses gathered with the web-survey are representative for the population, the established income dispersion has been compared to the income dispersion found in the Woononderzoek of Metropoolregio Amsterdam (MRA) for the Gooi en Vecht region. This comparison can be seen in table 5 below.

Income group	% web survey	% MRA 2018
Primary target group	42%	54%
Secondary target group	40%	22%
Middle or higher income households	18%	24%

There are some differences noticeable. The first is the differences in size of the primary target group. In the web-survey, the primary target group has been identified by asking the respondent if they're receiving rent allowance. In the research conducted by the MRA, this group has been identified using information regarding income levels supplied by the CBS. It's possible that the primary target group is actually larger than found with the web-survey, as not every household that is eligible for rent allowance is receiving rent allowance. This probably also the reason why the secondary target group is larger than identified by the MRA research. However, the differences can also be due to dissimilarities of specific characteristics between the population in the Gooi en Vecht region and Dudok Wonen's working area. Still, the overall differences aren't that great.

In the plot below (figure 33), the dispersion of the respondent’s age can be seen.

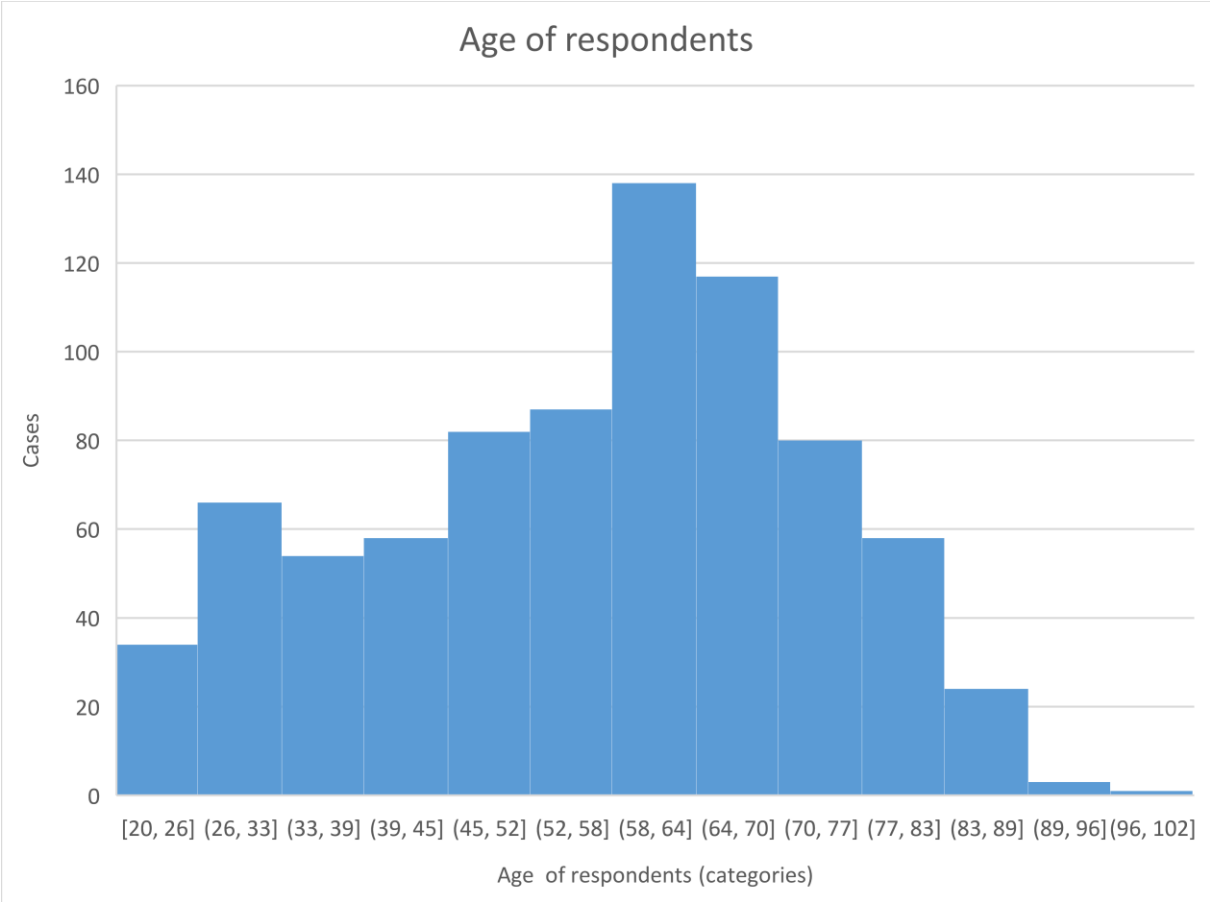


Figure 33: Distribution of age amongst the respondents (own image)

From the plot we can see that the dispersion is slightly skewed towards the left. This means that in overall, more younger respondents have answered the survey than older respondents. However, the largest group of respondents is aged 58-64. As was discussed in section 5.2 of this report, web-surveys seem to be answered more often by younger respondents, as these are often more familiar with the technologies used. As such, the slightly skewed age of respondents was to be expected.

In overall, there are enough responses to the survey to perform a statistical analysis with, even though the response rate is fairly low. This, in combination with the deviations from the results of the MRA, in combination with the skewness of the population (which was expected), mean that one would have to be careful to make generalisations for the entire population.

7.2 Does the intermediate rental segment trigger middle income households with to move?

In total, 139 middle or higher income households have responded to the survey. This is the population on which the analysis is based. 112 of these households have completed the survey, giving a completion rate of 80,6%. First and foremost, the willingness to move amongst these middle income households needs to be assessed. The results of this can be seen below, in table 6. To find out more about how the information in table 6 has been uncovered, refer to appendix D.

Table 6: Willingness to move amongst middle income households residing in a regulated rental dwelling offered by Dudok Wonen (N = 124)	
Is the household looking to move in the next two years?	%
Yes	58,7
No	40,3

The results shown in table 6 indicate that the willingness to move amongst the middle income households residing in Dudok Wonen's regulated rental segment dwellings should not be a large limiting factor, as a majority of the households are interested in moving. How many of these households are interested in moving to the intermediate rental segment? Before households can be interested in moving to the intermediate rental segment, they need to know about the intermediate rental segment.

Table 7: Do the middle income households currently residing in a regulated rental dwelling offered by Dudok Wonen know about the intermediate rental segment offers? (N = 70)	
	%
No	42,9
Yes	57,1
total	100

Table 7 reveals that a large portion of the middle income households does not know about the intermediate rental segment. This limits the number of households that are triggered to move. Are the households that do know about the intermediate rental segment interested in moving to the intermediate rental segment?

Table 8: Do middle income households that know about the intermediate segment want to respond to these dwellings? (N = 40)		
	N	%
No	26	65%
I'm contemplating to respond to a dwelling in the intermediate rental segment	9	22,5%
I already have responded to one of the dwellings in the intermediate rental segment	5	12,5%
Total	40	100

Table 8 reveals that a majority of the middle income households do not want to respond to these dwellings. Why are these households not interested?

Table 9: Why do the middle income households that know about the dwellings being offered not want to respond? (N = 26)		
	N	% of cases
My income level isn't suitable to be eligible to rent a dwelling in the intermediate rental segment	7	26,9%
The supply of the intermediate rental segment is lacking or does not suit my housing preferences	15	57,7%
I don't know how to respond to one of these dwellings	1	3,8%
Other...	17	65,4%

Total	40	153,8%
--------------	----	--------

This was a multiple response question, hence the larger total count than the mentioned N.

Table 9 reveals that more than half of the households that are not interested in the intermediate rental segment state that this is the case because find that the intermediate rental segment supply does not suit their housing preferences. More detailed information on how table 9 has been produced can be found in appendix D. To find out why the intermediate rental segment does not suit their housing preferences, the housing preferences of the middle or higher income respondents have been distilled from the survey responses. This needs to be done in order to find out to what extent the intermediate rental segment supply suits these housing preferences.

From the quantitative analysis described in chapter 6, we learned that the intermediate rental supply offered by Dudok Wonen are rental dwellings, with on average, a higher quality than the dwellings found in the regulated rental segment, but a lower quality than the rental dwellings found in the unregulated rental segment. The quality difference between the regulated and the intermediate rental segment is mainly found in terms of dwelling size. The higher quality in the intermediate rental segment comes at a cost, as the rental price of the dwellings is higher than those found in the regulated rental dwellings. However, the increase in costs isn't as high as it is compared to the unregulated rental segment. In terms of price/quality ratio, the regulated rental segment is best described as, well, an intermediate rental segment. The price/quality ratio of the intermediate rental segment is better than the price/quality ratio found in the unregulated rental segment, but lower than that of the regulated rental segment.

Table 10: Preferred tenure status amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen (N = 84)	
Preferred tenure status	%
Owner-occupied dwelling	16,4
Rental dwelling	58,2
No preference in tenure status	25,5
total	100

Table 10 shows that a majority the middle income households currently residing in Dudok Wonen's regulated rental segment dwellings would prefer to move to a rental dwelling.

Table 11: Most important aspects used by middle income households currently residing in regulated rental dwellings offered by Dudok Wonen to select housing options (N = 55)	
Aspect	%
Location	30,9
Price	18,2
Dwelling size	38,2
Other...	12,7
total	100

Table 11 shows that a large portion (38,2%) of the middle income households residing in Dudok Wonen's regulated rental segment dwellings prioritize dwelling size when selecting moving options. It does, however, also reveal that a large number of households prioritize other aspects. As the intermediate rental segment only supplies larger dwellings, which indicates that a majority of the middle income households will not be triggered by the increased quality found in the intermediate rental segment.

Table 12 reveals that a majority of the middle income households are not interested in rental prices which are higher than those of dwellings found in the regulated rental segment. More detailed

information regarding the desired rent levels of the middle income households residing in Dudok Wonen's regulated rental segment can be found in appendix D. It is unlikely that these households will find the options in the intermediate rental segment attractive options to move to.

category	%
€550 - €710 (regulated rental price)	52,8%
€710 - €850 (intermediate rental segment price)	33,3%
€850+	14%

Slightly more than half of the middle income households know about the intermediate rental segment being offered on the market. More than half of the households that do know about the offers (65%) states that they aren't interested in the intermediate rental segment, mostly because the dwellings in this segment do not suit their housing preferences. It appears to be so that these households either find the intermediate rental segment too expensive, or they would rather buy a dwelling. Most middle income households are looking for a rental dwelling, or have no preference when it comes to tenure status. The most important selection criteria for these households concern quality aspects. Here, dwelling aspects play a somewhat larger role than location aspects do, but the difference between the two is not that large. The analysis described in chapter 5 has revealed that in terms of location quality aspects, the intermediate rental segment does not have much more to offer than the regulated rental segment, meaning that the middle income households that state that the location is the most important aspect when it comes to dwelling selection will have a hard time finding attractive options in the intermediate rental segment.

Although the middle income households are mostly looking for rental dwellings, most of them do not want to spend more on their housing situation than they do now. Only 47,3% of the middle income households state that they want to rent a dwelling with a rental price over the liberalisation limit. The intermediate rental segment suits the housing preferences of a minority of the middle income households currently residing in the regulated rental dwellings offered by Dudok Wonen. Slightly more than half of the middle income households knows about the intermediate rental dwellings being offered on the market, but the number of households that's interested in these offers is low. The intermediate rental segment will only supply a small amount of middle income households with triggers to move.

7.3 The price/quality ratio: decisive for the desire to move?

In the literature review, it became clear that Dudok Wonen wants to supply pull triggers to middle income households residing in their regulated rental dwellings, to make them want to move from the regulated rental segment into the affordable unregulated rental segment. Dudok Wonen wants to supply this pull trigger with attractive price/quality ratios, by offering a more attractive price/quality ratio in the affordable unregulated housing segment than in the regulated housing segment. This should mean that the middle income households residing in the regulated rental dwellings offered by Dudok Wonen want to move following primary action. Households taking primary actions want to move because they feel dissatisfied with the place utility attached to their current dwelling. This would mean that the households looking to move would value their current housing situation lower than the households who are not looking to move. Multiple T-tests were performed in order to find the results for this section. For further substantiation of these T-tests, refer to Appendix E.

Place utility: households that do not want to move vs. households that do want to move

This can be tested using the independent samples T-test in SPSS. The null hypothesis here is that there is no difference between the valuation of the dwelling and the neighbourhood between the households that are looking to move, and the households that aren't looking to move.

Table 13: T-test results: desire to move vs. dwelling valuation amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen.					
	Does the household want to move?	N	Mean	95 CI lower bound	95 CI upper bound
Dwelling valuation (graded from 1 to 10)	yes	74	6,6	6,1946	7,0000
	No	49	7,05	7,3062	8,2222
Neighbourhood valuation (graded from 1 to 10)	Yes	74	7,04	6,71	7,40
	No	49	7,86	7,56	8,14

From table 13 we learn that there is a significant difference in how these two groups of middle income households value their current dwelling and neighbourhood. The households that want to move rate their dwelling and neighbourhood significantly lower than the households that do not want to move. This means that the households that want to move assign a significantly lower place utility to their current dwelling than the households that do not want to move, and indicates that the households that want to move are planning on taking primary action.

Dwelling quality: Dwelling size of households that do not want to move vs. that of households that do want to move.

Now, more tests are needed to find out what causes the experienced lower place utility, is this due to the price, due to dwelling quality, or due to a combination of the two? Below, more tests are introduced to find out if the lower place utility is caused by dwelling quality, location quality or dwelling price.

Do the households that want to move live in lower-quality dwellings?

Table 14: T-test results: Dwelling size versus desire to move amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen					
	Does the household want to move?	N	Mean	95 CI lower bound	95 CI upper bound
Dwelling size	yes	56	2,71	2,4889	2,9402
	No	34	3,4	3,1808	3,6341

Table 14 reveals that the households that want to move generally live in smaller dwellings than the households that do not want to move. The mean for households that want to move is the 60 to 80 square meters option, for households that do not want to move this is the > 80 m² option. This could be the reason why the place utility these households experience is significantly lower than the place

utility households that do not want to move assign to their dwelling, however, this could also be due to differences in location quality and price.

Dwelling quality: neighbourhood status scores of households that want to move vs. households that do not want to move

In chapter 6 of this report we established that higher SCP status score areas generally offer dwellings with higher WOZ values, and concluded that the status score can be used as a determinant for location quality. To find out if differences in neighbourhood quality lead to a desire to move, the status scores for households that want to move and households that do not want to move have been compared. In the plot featured in figure 34 below, the results of this comparison (a percentage of households that want to move out of total respondents from that specific status score area) can be seen.

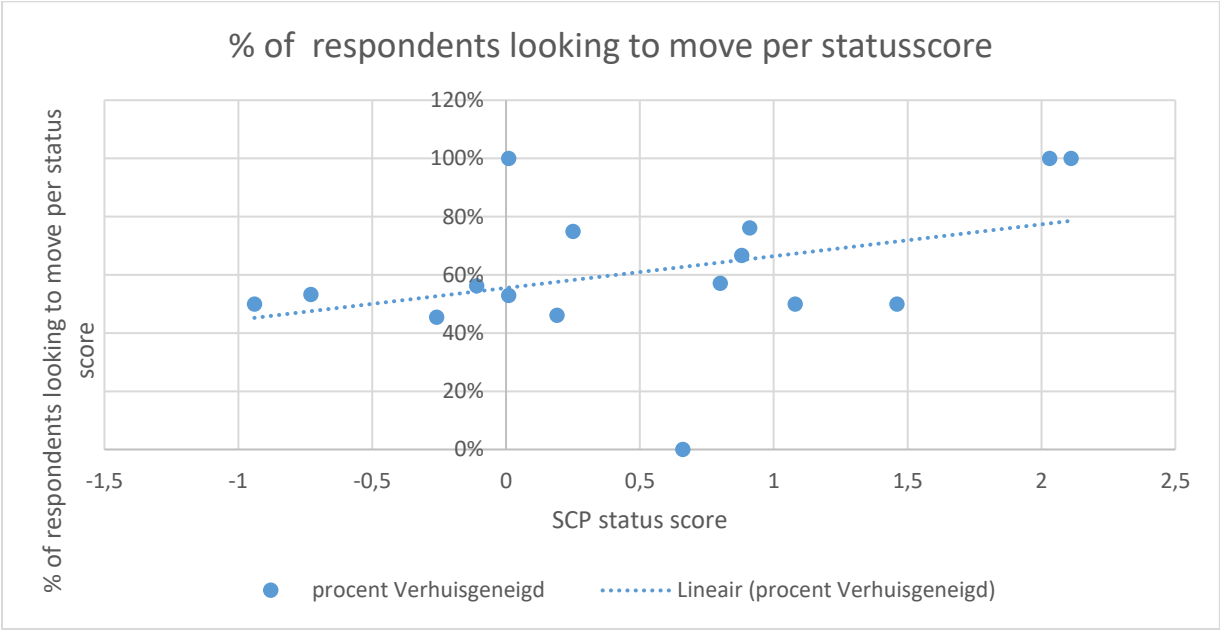


Figure 34: The percentage of households looking to move per status score (own image)

From this plot it becomes clear that the higher the status score, the higher the percentage of middle income households that are looking to move is. It appears to be so that middle income households residing in regulated rental dwellings in a location with a high status score more often desire to move than middle income households that live in a regulated rental dwelling in a low scoring neighbourhood. This is interesting, as the neighbourhoods in which middle income households that want to move appear to be of a higher quality, even though these households rate their neighbourhood lower than the households that do not want to move.

This could mean that the rating of the neighbourhood is affected by the overall sense of place utility caused by dissatisfaction with the household’s current dwelling, rather than the actual quality of the neighbourhood itself. To find out if this is the case, we need to take a look at the reasons the middle income households have for desiring to move. How respondents have answered this question can be seen in table 15.

	N	% of cases
I want a larger dwelling	18	24,3%
I want a smaller dwelling	9	12,2%

I want a better dwelling	19	25,7%
I don't have outdoor space in my current dwelling	15	20,3%
Household circumstances	6	8,1%
Work or study-related circumstances	1	1,4%
Current dwelling is too expensive	5	6,8%
Health-related	11	14,9%
Too many stairs in current dwelling	13	17,6%
Contract related	1	1,4%
Current tenure status	14	18,9%
Dissatisfaction with current neighbourhood	8	10,8%
Need to move closer to family and friends	2	2,7%
Other..	14	18,9%
Total	136	183,9%
<i>This was a multiple response question, which is why the total N is larger than the number of cases.</i>		

From table 15 it becomes clear that the dwelling location is less often mentioned as a reason to move than dwelling quality aspects, like size and outdoor space. This means that the dwelling location is less often a reason for households to move than dwelling quality aspects.

[Dwelling price: Basic rent levels of households that want to move vs. households that do not want to move.](#)

In order to find out if the rental price is an important factor contributing to the differences in place utility between households that want to move and households that do not want to move, the rental price which the two groups pay monthly has also been tested using the independent samples T-test. The null hypothesis here is that there is no difference between how much households that want to move and households that do not want to move spend on housing. The results of this T-test can be seen in table 16 below.

Table 16: T-test results: Current rental price versus desire to move amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen.					
	Does the household want to move?	N	Mean	95 CI lower bound	95 CI upper bound
Dwelling size	yes	46	€599	€571	€627
	No	31	€590	€559	€619

Households that want to move and households that do not want to move spend an equal amount monthly on rent. The fact that no significant difference has been found in basic rent levels between the two groups is probably the result of two factors, which are inherent to the regulated rental segment;

- The capped rent levels in the regulated rental segment, which mean that larger dwellings cannot be priced substantially higher than smaller dwellings
- The effects of 'passend toewijzen'; which mean that households with similar income levels are placed in dwellings with similar rent levels.

[Synthesis: place utility, dwelling size and dwelling price comparison](#)

From the analysis performed in this section so far, we have learnt the following;

- The households that want to move value their dwelling and neighbourhood lower than the households that do not want to move.
- Households that want to move generally live in smaller dwellings than households that do not want to move.
- In neighbourhoods with higher social status scores, the percentage of households desiring to move is higher than it is for neighbourhoods that feature low SCP status scores.
- Dwelling characteristics are more commonly named as reasons to move than location characteristics
- There is no significant difference in how much the households that want to move and the households that do not want to move spend on rent monthly.

From these outcomes it can be concluded that households that want to move experience a lower sense of place utility because their dwellings are generally smaller. Another conclusion that can be drawn from these results is that the lower price/quality ratio which households that want to move experience (due to the generally smaller dwelling sizes, in combination with the similar rent levels) affects the place utility negatively. This, however, would mean that all households know what dwelling quality and rental price other households in the regulated rental segment receive, which is unreasonable to assume.

To find out whether if the latter is the case, we need to find out how households that want to move and households that do not want to move perceive their rent levels. Furthermore, we can also determine how households that live in smaller dwellings and households that live in larger dwellings perceive their rent levels, to find out if the dwelling size influences the rent levels.

Perceived rent levels: households that want to move vs. households that do not want to move

To find out how the households that want to move and the households that do not want to move perceive their rent levels, another T-test has been performed. The null hypothesis for this test is that there is no differences in how the households that want to move, and households that do not want to move perceive their rent levels. The results of this T-test are displayed in table 17 below.

	Does the household want to move?	N	Mean	95 CI lower bound	95 CI upper bound
Dwelling size	yes	67	1,522	1,406	€627
	No	43	1,442	1,297	€619

No significant difference has been found ($p = 0,414$), indicating that the households that want to move do perceive their current rent levels differently than the households that do want to move.

Dwelling and rent level valuation: households in smaller dwellings vs. households in larger dwellings

To find out whether households in smaller dwellings and households in larger dwellings rate their housing situation differently, a T-test has been performed. The results of this T-test can be seen in table 18 below.

	Dwelling size	N	Mean	95 CI lower bound	95 CI upper bound
--	---------------	---	------	-------------------	-------------------

Rating of housing situation	Less than 60 m ²	28	6,39	5,56	7,15
Rating of housing situation	More than 60 m ²	65	7,42	6,96	7,84

The households living in dwelling with less than 60 square meters of surface area rate their housing situation significantly lower than households living in larger dwellings ($p = 0,022$). This difference is significant, even though the confidence intervals overlap. These findings are in line with the findings displayed earlier, in which it became clear that households that want to move rate their dwelling significantly lower than households that do not want to move, and that the households that want to move live in significantly smaller dwellings.

Next, we need to find out whether the households in smaller and households in larger dwellings spend the same amount on rent every month. The result of this T-test can be seen in table 19 below.

	Dwelling size	N	Mean	95 CI lower bound	95 CI upper bound
Dwelling size	Less than 60 m ²	18	€585	€530	€637
Dwelling size	More than 60 m ²	37	€601	€573	€626

There is no significant difference between the rent level of smaller and larger dwellings. ($p = 0,546$), indicating that the smaller and larger dwellings are priced about the same. The similar rental prices can be accrued to the capped rent levels and the ‘passend toewijzen’ which is inherent to the regulated rental segment.

In order to find out whether if this price/quality difference between smaller and larger dwellings is the factor leading to lower experienced place utility, we next compare how the rent level is rated amongst tenants in smaller and larger dwellings. Again, the results are displayed in table 20 below.

	Dwelling size	N	Mean
Rating of rent level	Less than 60 m ²	23	1,52
Rating of rent level	More than 60 m ²	57	1,47

Here, no significant difference has been found ($p = 0,702$, with a 95% confidence interval), which (again) indicates that these households do not perceive their rent level different from each other.

There is no difference in how households that want to move and households that do not want to move perceive their rent levels, even though there are no significant differences in rent level, while there are significant differences between dwelling sizes and sense of place utility. There also is no significant difference in how much households residing in small dwellings and households residing in larger dwellings have to spend on rent and perceive their rent level, while significant differences have been found in terms of place utility. This could mean that the households do not know how much other households spend on rent and what quality these households receive for it, which in turn would mean

that rather than the price/quality ratio, the dwelling quality is the determining factor when it comes to establishing a sense of place utility.

It could also indicate that responding households have responded with some sort of desirability bias. Seeing as the survey has been distributed by their landlord, the respondents may have responded differently to questions regarding their (desired) rent level, with the belief that their responses may negatively influence their (prospective) rent levels in the future.

Conclusion

Households that want to move assign lower ratings to their current housing situation and neighbourhood, indicating a lower sense of place utility, much like the literature review suggested. It turns out that the households that want to move generally live in smaller dwellings than households that do not want to move, but that the neighbourhoods they live in aren't much different to those of the households that do not want to move. In fact, we now know that the higher the quality of the neighbourhood is, the more middle income households wish to move (even though they assigned a lower rating to their neighbourhood than the households that do not want to move. It turns out that the neighbourhood is less often named as a reason to move. It seems that dwelling aspects have more influence on the experienced place utility than neighbourhood characteristics do.

In terms of dwelling price, households that want to move and households that do not want to move appear to spend similar amounts on rent per month. This was to be expected, as rent levels in the regulated rental segment are restricted, and dwellings in the regulated rental segment are distributed based on income levels, which, for these middle income households, all are similar. Households that want to move and households that do not want to move perceive their rent level in the same way. This could indicate that the rental price is not a deciding factor when it comes to establishing a sense of place utility, meaning that rather than the price-quality ratio, quality is the determining factor. When comparing households residing in smaller dwellings to households residing in larger dwellings, this is no different, a finding that could substantiate the outcome of the comparison between households that do not want to move and households that do not want to move.

It appears to be so that the price-quality ratio is not the decisive reason for households to experience a low place utility, but that the quality of their current dwelling is. However, the responses may have been distorted by some sort of desirability bias.

7.4 Summary: the web-survey analysis

The structured web-survey distributed amongst tenants of Dudok Wonen's regulated rental segment dwellings has yielded a response rate of 26,5%, with 806 responses in total. With the responses, the middle income households amongst this population has successfully been identified; 139 middle income households have responded to the survey. In overall, there are enough responses to the survey to perform a statistical analysis with, even though the response rate is fairly low. This, in combination with the deviations from the results of the MRA, in combination with the skewness of the population in terms of age (which was expected), mean that one would have to be careful to make generalisations for the entire population.

The results of the analysis reveal that a majority of the middle income households amongst this population is interested in moving in the next two years. However, not all of these households are interested in the intermediate rental segment. A large contributor to this disinterest is the lack of knowledge concerning the intermediate rental segment, but also the lack of quality aspects in which the intermediate rental segment is superior to the regulated rental segment dwellings play a role. The analysis performed in chapter 6 has revealed that the intermediate rental segment features larger

dwellings, while this analysis has revealed that not every household is interested in larger dwellings. Next to quality aspects, price aspects play a large role. A majority of the middle income households does not want to pay more for their housing situation than they currently do.

The reason why households are interested in moving is predominantly linked to quality aspects of their current housing situation. The price level of their current dwelling does not appear to play a large role, nor does the price/quality ratio, as a dwelling quality aspect such as dwelling size does not appear to affect the way households rate their rental price. However, the responses may have been distorted by some sort of desirability bias.

8 Analysing the interview results

In this chapter, an analysis of the results of the interviews with middle income households that have moved to a dwelling in the intermediate rental segment is presented. Dudok Wonen has set the goal to provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment. Households that have moved to a dwelling in the intermediate segment should find that their dwelling is better than the dwelling they resided in in the regulated rental segment, but they should still experience triggers to continue their housing career. These interviews have been conducted in order to assess the reasons which the middle income households have had for moving and what role the price/quality ratio of their former housing situation played in their decision making, if they experience a greater place utility in their current housing situation compared to their former housing situation, and what preferences they had when they were looking for appropriate moving options. While analysing the interviews, an analytical framework has been used. This analytical framework can be found in appendix F The interview guide used for the interviews can be found in appendix G.

Before the analysis is presented, a brief overview of the respondents is provided in section 8.1.

8.1 Interview respondents: a brief overview

Inviting households to take part in this research by participating in an interview (either in person or by telephone) has yielded a total of 9 respondents. In total, 5 interviews were conducted in person, and 4 interviews were conducted by telephone. These interviews resulted in 255 minutes of recordings. The recordings have been used to make summaries of the interviews, which were used to conduct the analysis. In general, the interviews conducted in person lasted almost 4 minutes longer than interviews conducted by telephone. Interviewees spoken to in person went more into detail when it came to previous and desired dwelling characteristics.

The goal for the interviews was to have an equal number of respondents for filtering and starting households. This goal has not been achieved, as not that many households were interested in taking part in an interview, and households that were labelled as 'starters' sometimes turned out to be actually filterers and vice versa. 6 interviews have been conducted with filtered households, and 3 interviews have been conducted with starting households. The age of the respondents ranges from 25 to 84, although most respondents were around 30 years old. Most of the respondents were young couples without children, with a fairly high education.

8.2 Why do households move to the intermediate rental segment?

Dudok Wonen's goal to provide middle income households with attractive options in the regional housing market, that are more beneficial in terms of price-quality ratio than other options in the unregulated rental segment, implies that the households that have moved to the intermediate rental segment should have taken primary action after finding that the intermediate rental segment dwelling they have moved to is an attractive option for them.

Households take primary action because they are unsatisfied with their current dwelling, indicating a low sense of place utility. This means that the households that have moved to the intermediate rental segment were experiencing a low sense of place utility in their former housing situation. The place utility connected to their former housing situation is heavily influenced by the characteristics their former dwelling has. However, it can also be influenced by factors relating to the life and/or job market cycle.

In order to find out if the middle income households have moved to the intermediate rental segment following primary actions, we need to find out how they rate their former dwelling situation, and what other motives have played a role in their decision to move. Next to this, it is important to establish whether if they moved to this particular dwelling because the options was attractive.

It is needed to differentiate the households that have taken primary action from the households that have taken secondary action, as well as defining if these households are starters or filterers. For this we use the following two definitions.

- Filtering households, or 'filterers' are households that have left a regulated rental dwelling behind when moving.
- Starting households, or 'starters', are households that do not leave an independent dwelling behind when moving.

For these two groups we need to check if the following statements apply.

Filtering households have moved to these dwellings because their former dwelling was unsatisfactory. It can be the case that this is combined with another factor, triggering them to move. These households have taken primary action.

Starting households have moved to these dwellings because they need a place to start their housing career, and found the dwellings in the intermediate rental segment attractive options to do this in.

First, the filtered households will be discussed, followed by the starting households.

The filtered households: reasons to move

All but one of the filtering households have stated that they were unhappy with their former housing situation. The most commonly named reasons when asked why they were unsatisfied with their former housing situation, were that their former dwelling was too small, followed by the dwelling layout and neighbourhood-related issues. The neighbourhood-related issues mostly concerned nuisance caused by neighbours or traffic, but the lack of amenities in the neighbourhoods were also named by several respondents. Although some of the filtered households reported that they did feel a really strong urge to move, none have indicated that there was a real sense of urgency involved with their relocation. If they would not have been able to move, they would just make do with the dwelling they were living in at the time.

'We weren't exactly in a situation in which we really had to move, but when this opportunity came by, we just took it.' Filtered household D3 10/5/2018

Shortcomings in dwelling quality were almost always mentioned in the same breath as life-cycle related reasons to move. The households that mentioned the lacking dwelling size their former dwelling featured mentioned that they need more room 'to broaden their future perspectives', or wanted a dwelling in which their (prospective) partner was able to move in, if time comes.

'My partner wanted to move in, and although the dwelling I was living in was large enough for one person, it was just too small for us two.' – Filtered household D1, 25/4/2018

As mentioned before, neighbourhood related reasons to move often had to do with nuisance, either due to traffic or due to neighbours, than with actual neighbourhood characteristics. These motives were often paired with complaints about the quality of their previous dwelling, being able to hear nearly everything their neighbour does, or constantly living with the smell of their neighbours marijuana. The respondents that named the lack of amenities in their neighbourhood as a reason to

move stated that the lack thereof made the neighbourhood dull or boring, or mention that their current neighbourhood was not child-friendly.

'There weren't a lot of shops, although the shops that were there were fine, but there was not a lot of nature, no parking spaces.. It was just an apartment building, with a school behind it. That was basically it.' – Filtered household D3 10/5/2018

The filtered households all have taken primary action when they moved to the intermediate rental segment, as there was no urgency involved in their relocation, and all had the desire to improve their housing situation, as they were unsatisfied with their former dwelling. This dissatisfaction was most commonly attributed to the dwelling and its characteristics, rather than their neighbourhood or dwelling location. The origin of their dissatisfaction with their former dwelling is mostly linked to the life-cycle, rather than the career cycle. Almost all of the responding households desired to have a dwelling which is more suitable to start a family, or move in to along with their partner. Only one of the respondents deviated from this, as she needed a dwelling which was more suitable for receiving health care. Life-cycle related reasons for moving are most commonly named by the filtered households that have moved to the intermediate rental segment, and are often related to the dwelling characteristics. Larger dwellings are preferred by households as they believe that these dwellings will increase their future perspectives.

The starting households: reasons to move

The starting households have moved to intermediate rental segment with different reasons. One household has moved after having felt the desire to have a dwelling for their own, in order to be able to start a family. One household had to move due to family expansion and the third starting household suddenly had to move out of their parental house. Two of the starting households were living with their parents, along with their partners. One of these households also had a small child, and another one coming up, after she suddenly became pregnant. The main reason why these households desired to move was to have a place for their own.

'We're happy that we're able to live together, and that we no longer have to pay attention to other housemates.' - Starting household S3 30/5/2018

The third starting household was put on the street after special circumstances, and didn't have the time to find another suitable dwelling. The primary motive for starting households to move appears to be to have a place for their own, which is life-cycle related.

Conclusion: Why do households move to the intermediate rental segment?

A vast majority of the households that have moved to the intermediate rental segment have done so taking primary action, as all but one of the respondents have moved because they were dissatisfied with their former dwelling. This dissatisfaction with the former dwelling is most commonly attributed to (prospective) developments in their life-cycle, and are most commonly linked to dwelling characteristics, such as dwelling size and the number of rooms. The households that have moved to the intermediate rental segment have done so because they believe that their current dwelling offers a better future perspective for their household than their former housing situation did.

8.3 What role did the price/quality ratios play in the decision to move?

Dudok Wonen states that a more attractive price-quality ratio gives households a trigger to move. This implies that the households that have taken primary action should also have been dissatisfied with the price/quality ratio they had in the regulated rental segment. With most of the analyses behind us at this point, what do we already know about the role which the price-quality ratio plays in the decision to move?

- In chapter 6, we established that the regulated rental dwellings generally offer less quality than the intermediate rental segment does, but that this difference is mainly caused by dwelling quality aspects, rather than neighbourhood quality aspects.
- Also in chapter 6, we learnt that the regulated rental segment offers the best price/quality ratio, and the unregulated rental segment offers the least beneficial price/quality ratio. The intermediate rental segment bridges the gap between these two segments in terms of price/quality ratio.
- In chapter 7, we've established that the rental price does not affect place utility in any way, but that this outcome might be distorted by a possible bias amongst respondents.
- In the former section of, we have already established that most of the middle income households have moved because they were unsatisfied with their former dwelling, and that this dissatisfaction was generally based on dwelling qualities which didn't align with their relative life-cycle position.

Thus far, it appears to be so that the price-quality ratio does not play a large role in the motives middle income households have to move away from the regulated rental segment, but that dwelling quality aspects do. In order to find out what role the price/quality ratio plays, we need to find out if the filtered middle income households have experienced moving triggers due to the price/quality ratio of their former housing situation.

From the filtered middle income households, only one respondent has stated that knowledge she had concerning what quality level other households received in their regulated rental dwelling while having a similar rent level was an important reason for her to start looking for other housing options. This household was residing in a studio which was being let for a rental price which was similar to what households in a single-family house were paying. She stated:

'I was fed up with the studio as it was already, but when I figured other households were living in a single-family house for the same rent level, I was sick of it.' Respondent D4, 11/5/2018

Another household didn't specifically state that he didn't agree with the price/quality ratio of their former dwelling, but that it did play a large role in finding appropriate housing options. This household was initially looking for a dwelling in Amsterdam. He states that:

'The price limit we set was €1000. We did find a lot of dwellings in Amsterdam which were available for this price, but those dwellings weren't better than the dwelling we were living in at the time, while they were more expensive. We didn't want to go out of the frying pan and into the fire.' – Respondent D2, 3/5/2018

For this household, this had led to them expanding their field of view, which meant that they started considering options outside of Amsterdam. Eventually, they ended up in Hilversum.

The other respondents did not mention the rental price or price/quality ratio of their former dwelling as a reason to move. They all stated that the desire to move sprung from dissatisfaction with the quality their former dwelling offered, which in turn sprung from their relative position in the life-cycle (as concluded in the former section). Although the price/quality ratio was rarely named as a reason to move, nearly all of the respondents mentioned that they did restrict themselves only to housing options which were in line with the maximum rent level they had set. All of these households have indicated that they desired a higher dwelling quality as well.

'I wanted a dwelling which was more spacious, easily accessible (red: with (public) transport), and not too expensive. Especially that last bit was really important.' – Respondent D1, 25/4/2018

It appears to be so that most of the filtered respondents found that their price/quality ratio in the regulated rental segment was agreeable. The price/quality ratio nor the rental price of their former dwelling were reasons for these households to want to move. The price/quality ratio does however, appear to play a large role in selecting appropriate moving options.

8.4 The intermediate rental segment: an increase in place utility?

Dudok Wonen desires that the filtered households that have moved to the intermediate rental dwellings experience a rise in dwelling quality, compared to their former housing situation. The starting households should find that the intermediate rental segment dwelling they have moved to is agreeable, as it should be a 'real' opportunity for them to start in the housing market. The analysis described in chapter 6 has already taught us that there is a noticeable difference in dwelling quality between the regulated and the intermediate rental segment, and that although the price/quality ratio is less favourable in the intermediate rental segment than in the regulated rental segment, it is more favourable than the price/quality ratio found in the unregulated rental segment.

To find out if households experience a greater sense of place utility in their intermediate rental segment, the households have been asked to rate their former and current housing situation, both in terms of dwelling aspects as well as neighbourhood aspects. When asked what these different ratings are based on, the respondents gave some interesting responses. First, the filtered households will be discussed, after which the starting household are.

The filtered households

All but one of the filtered households state that they experience a greater place utility in their current dwelling compared to their former dwelling. Most of the respondents indicate that their current dwelling in the intermediate rental segment is more spacious than their former dwelling in the regulated rental segment, and note that in their new dwelling, they have their own bit of outdoor space.

'In my current home I have a front and back yard, in the bathroom there's room for a washing machine, a dryer, and in the kitchen there's room for a dishwashing machine. All this, while the living room is large enough to live in.' – Respondent D5, 16/5/2018

Not every filtered household has relocated to a different neighbourhood. The households that have are divided on whether they have improved their housing situation in terms of neighbourhood quality. The households that state that they now live in a better neighbourhood state that this is due to the increase in amenities found in their neighbourhood, either due to more shops in their proximity, being closer to nature, or due to the neighbourhood being more child-friendly. Households that state they haven't improved their housing situation in terms of the neighbourhood state that they regret not having paid more attention to neighbourhood characteristics while looking for housing options. Respondent D5 states:

'The most important selection criteria was that the dwelling should be more spacious, both inside of and around the house. (...) When this option came, we just went for it. I'm quite impulsive when it comes to these matters. (...) We now live in a suburb, while we used to live in the centre of a town. (...) The neighbourhood here is fine, but we're both still quite young. We wouldn't have minded a bit more turbulent living environment in this state of our lives.' – Respondent D5, 16/5/2018.

Almost all of the filtered households report an increase in dwelling quality. This result isn't shocking, as lacking dwelling quality was a reason to move for a large portion of the filtered households. Only one of the respondents indicated that she, in hindsight, didn't actually need all of the quality aspects she was looking for.

'I'd rate my dwelling an 8 out of 10. Had I been part of a 2-person household, it would be a 10 out of 10. The dwelling is a bit too large for just me alone. (...) At first I was happy with this much space, but it turns out that I don't even use half of it.' – Respondent D4, 11/5/2018

Not every household has moved to a different neighbourhood, and not all households that have are satisfied with their decision to move to another neighbourhood. It appears to be so that the households that have neglected to take neighbourhood characteristics into account when looking for suitable housing options regret this later on.

All of the filtered households have experienced an increase in rental price in their new housing situation, compared to their former housing situation. Some of the filtered respondents state that they don't mind this increase in price, as the quality of their new housing situation makes up for it, although not every household has regarded their relocation with a price/quality point of view.

'If you think about it, I'm now paying €200 extra on a monthly basis, just to have a back yard. I don't know if the back yard justifies the €200.' – Respondent D3, 10-5-2018

The households that do think their price-quality ratio is okay, appear to relate it to other, less beneficial, situations (e.g. respondent D2, who compares his current price/quality ratio to unattractive options he's seen in the Amsterdam housing market), or dismiss their dissatisfaction with their current price/quality ratio by emphasising the improved quality compared to their former housing situation.

'I do believe the increase in quality compared to my former dwelling justifies the increase in rental price, although feel like I need to mention that my neighbours are living in the same dwelling, but in the regulated rental segment. (...) When I found out others are paying way less for almost the exact same dwelling, I can't help but feel like I've gotten a bit of a raw deal. Nevertheless, I am happy with my relocation.' – Respondent D1, 25/4/2018

All filtered households have stated that the relocation ended up being beneficial for their household. Only two of the respondents indicated that they were unsatisfied with some of the aspects their current housing situation has, like respondent D3, who stated that in hindsight, her new housing situation is a bit too large.

This could mean that all households were actually able to improve their housing situation with their relocation. It is however, more likely that the responses have been influenced by cognitive dissonance. Cognitive dissonance is a possible bias amongst respondents, which may have caused the respondents to distort their answers in order to present their past decision to move in a more positive perspective than it actually is. It's very likely that during the interviews, respondents have toned down their dissatisfaction with certain aspects of their new households. This possible bias is discussed further in section 10.2 of this report.

Summary: filtered households responses

Most of the households experience a greater place utility in their current dwelling than they did in their former dwelling. The most notable increases in quality are found in the dwelling aspects, nearly all of the filtered households state that their current dwelling is more spacious. Besides this, most of the households note that they now do have private outdoor space, which wasn't the case before.

Not all relocations have been towards different neighbourhoods. The households that have specifically mentioned neighbourhood characteristics in their selection criteria state that they are more satisfied with their new neighbourhood, while households that have neglected to take neighbourhood characteristics into account when selecting a dwelling are less satisfied.

The increase in rental price is for most households no reason to be unsatisfied, although some of the households state that they do not think that the increase in price (compared to their former, regulated dwelling), is not justified by the increase in quality. However, the households that aren't satisfied with the price/quality ratio of their current dwelling still state that they are more satisfied with their current dwelling than they were in their former dwelling. This could be the result of cognitive dissonance.

The starting households

2 out of the 3 starting households which have been interviewed are satisfied with their current housing situation, even though none of the starting households have found a dwelling which exactly matches their preferences. The starting households appear to compensate the missing quality aspects with other aspects.

'The dwelling doesn't have all the features we were looking for, as it doesn't have any private outdoor space. However, the size of the dwelling and the high ceilings make well up for this' – Respondent S3, 30/5/2018

When rating their neighbourhood, the starting households appear to apply a heavy weighting to amenities in their neighbourhood, such as shops and green areas. The main reason for these households to be satisfied with their dwelling is that they have a place for their own. Respondent S1 states that, even though their former housing situation wasn't that bad,

'It still comes down to the fact that you're living in someone else's home. (...) in a situation like that, you'll never have a place for your own. (...) This dwelling will do for now, although this dwelling is a bit on the small side for my household. In the end we still do have our independence now.' – Respondent S1, 24/5/2018

The starting households that are satisfied with their relocation state that the rental price for their current dwelling is acceptable, but that they should not have been priced any higher. In terms of price/quality ratio, these households state that their dwelling is just 'correct'.

Summary: Do households assign a greater place utility to their intermediate rental dwelling, compared to their former housing situation?

The filtered households note that the most notable increases in quality are found in the dwelling aspects, as nearly all of the filtered households state that their current dwelling is more spacious. Besides this, most of the households note that they now do have private outdoor space, which wasn't the case before. The filtered households that have specifically mentioned neighbourhood characteristics in their selection criteria state that they are more satisfied with their new neighbourhood, while households that have neglected to take neighbourhood characteristics into account when selecting a dwelling are less satisfied.

The increase in rental price is for most filtered households no reason to be unsatisfied, although some of the households state that they do not think that the increase in price (compared to their former, regulated dwelling), is not justified by the increase in quality. However, the filtered households that aren't satisfied with the price/quality ratio of their current dwelling still state that they are more satisfied with their current dwelling than they were in their former dwelling. Nearly all filtered households experience a greater place utility in the intermediate rental segment than they experienced in the regulated rental segment.

None of the starting households were able to find a dwelling which fits their housing preferences perfectly. Most of the starting households are satisfied with their new housing situation, regardless of the aspects they miss. Having a place for their own appears to be the most important aspect for starting

households, as this allows them to be independent. The rental price is no reason for the starting households to be unsatisfied, although the term 'affordable' is disputed. In overall, the starting households perceive their intermediate rental dwelling as a good opportunity for them to start their housing career.

8.5 Were the middle income households looking for a rental dwelling?

Were the middle income households indeed looking to move to a rental dwelling, or is their rental dwelling in the intermediate rental segment a substitute of their desired owner-occupied dwelling? To find out if this is the case, respondents have been asked what kind of tenure status they were looking for when selecting options to move to, and why this tenure status holds their preference.

Most of the households that have moved to the affordable unregulated rental dwellings were indeed looking for a rental dwelling at the time of moving. The most common named reason for this is that it would not be the right time for them to buy a dwelling. This is attributed to either the situation on the market (rising dwelling prices) or to their current income level.

'We currently don't have the means available to buy a dwelling. (...) Now is also not the right time to buy a dwelling, as the prices are simply rising too fast. I expect the housing market to calm down in a couple of years, and dwelling prices will lower a bit. That would be the right time to buy a home.' –

Respondent S2, 29/5/2018

Although all of the households have stated that they were looking for a rental dwelling at the time of moving, some have revealed that they actually would have wanted to find a dwelling in the owner-occupied housing segment. The reason why these households didn't end up with an owner-occupied dwelling is often attributed to market circumstances.

'We didn't buy a dwelling at the time, because the market is very rough for starting households. I expect the market to calm down a bit in a couple of years. (...) I think that in three years' time, we will be able to buy a much better dwelling than we could have bought at the time of moving.' –

Respondent D5, 16/5/2018

The rough housing market was mentioned as a limitation in their search for appropriate options by a lot of respondents. One respondent was particularly clear in describing the limitations middle income households are facing in the housing market:

'In the unregulated housing segment you have to earn at least three times the rent level before you are even eligible to take part in the draw procedure for that specific dwelling. (...) The unregulated rental segment was simply no option for me, and I wasn't eligible to move to another regulated rental dwelling. I just had nowhere to turn to.' – Respondent D4, 11/5/2018

For most of the households, it appears to be so that the stated desire to move to a rental dwelling is in fact moulded by market circumstances and income-related constraints. The desire to rent a dwelling is actually a substitute, and the actual desire for most of the interviewed households is home-ownership. But why is this the case? One often named reason to prefer an owner-occupied dwelling is empowerment: being able to shape your dwelling to your personal demands. Rental dwellings can be altered as a tenant, but if you do that you're investing in someone else's property.

'Owning a dwelling gives you more possibilities. (...) Say for example, that I want a new kitchen. I can do that in the rental dwelling I'm living in at the moment, but then I'm investing my own money in someone else's property. That's simply not what you want to do.' – Respondent D3, 10/5/2018

Other reasons why the respondents would prefer to own a dwelling are the perceived financial benefits that come with owning a dwelling. The financial benefits which the respondents mention vary. One respondent indicates that having a mortgage would be a nice way to be forced to start saving money. Another respondent states that if he'd live in an owner-occupied dwelling, he'd spend less money on interest than he spends on rent at the moment. Renting a dwelling is a waste of money according to most of the respondents.

'I'd preferably buy a dwelling, as I hear from my friends and colleagues that have a mortgage at the moment that they are living in similar dwellings, while their monthly expenditures are lower than mine.' – Respondent D4, 11/5/2018

Although all of the responses state that they were looking for a rental dwelling at the time of moving, further questioning has revealed that this is in fact not the actual preferred tenure status for a majority of the respondents. Nearly all of the respondents indicate that they would prefer an owner-occupied dwelling, as owner-occupied dwellings are perceived to be more empowering, and hold financial benefits over rental dwellings. The respondents believe that owner-occupied dwellings hold better price-quality ratios in terms of monthly expenditures, and are good method to put money aside. This revealed preference, however, does not mean that Dudok Wonen is not serving the middle income households properly by offering rental dwellings. The desire to rent a dwelling is influenced by the two factors: the contemporary housing market, in which prices are going up rapidly and supply is lacking, and options for middle income households are limited, and the households' position in the job market cycle. The rental dwellings which the households are living in at the moment are a substitute of their actual preferred tenure status, which is to live in an owner-occupied dwelling. However, due to the contemporary housing market, the intermediate rental segment is a satisfying solution for these households.

8.6 conclusion: analysis of the interview results

A vast majority of the households that have moved to the intermediate rental segment have done so taking primary action, as all but one of the respondents have moved because they were dissatisfied with their former dwelling. This dissatisfaction with the former dwelling is most commonly attributed to (prospective) developments in their life-cycle, and are most commonly linked to dwelling characteristics. The households that have moved to the intermediate rental segment have done so because they believe that their current dwelling offers a better future perspective for their household than their former housing situation did. Nearly all filtered households experience a greater place utility in the intermediate rental segment than they experienced in the regulated rental segment. For filtered households, this is most commonly attributed to an increase in dwelling quality aspects, rather than neighbourhood quality aspects.

It appears to be so that most of the filtered respondents found that their price/quality ratio in the regulated rental segment was agreeable. The price/quality ratio nor the rental price of their former dwelling were reasons for these households to want to move. The price/quality ratio does however, appear to play a large role in selecting appropriate moving options. The starting households perceive their intermediate rental dwelling as a good opportunity for them to start their housing career. The most important aspect for starting households is the fact that they have (re)gained their independence by having a place for their own. All other aspects appear to be subordinate to this.

In overall, the respondents have stated that their relocation went well for their household. However, it is possible that this may be a result of cognitive dissonance. Although all of the responses state that they were looking for a rental dwelling at the time of moving, further questioning has revealed that this is in fact not the actual preferred tenure status for a majority of the respondents. Nearly all of the

respondents indicate that an owner-occupied dwelling would be their ideal tenure status. They believe that owner-occupied dwellings are more empowering and hold certain financial benefits over rental dwellings. The rental dwellings which the households are living in at the moment are a substitute of their actual preferred tenure status, which is to live in an owner-occupied dwelling. However, due to the shortages in the contemporary housing market and the strict income restrictions for the regulated rental segment, the intermediate rental segment is a satisfying solution for these households.

9. Conclusion

In the aftermath of the GFC in 2008, the construction industry in the Netherlands was at a standstill. This resulted in a lacking supply of owner-occupied dwellings. The lack of options in the owner-occupied housing segment has been a reason for a lot of households to opt for a rental dwelling, causing a large increase in demand for rental dwellings. This increase in demand for rental dwellings has caused prices in the unregulated rental segment to rise drastically. This price increase means that there are not a lot of options available for middle income households in the regional housing market, as they cannot afford most of the dwellings in the unregulated rental segment, and they are not eligible to move to the regulated rental segment. Starting cannot start their housing career, and middle income households residing in regulated rental dwellings, often referred to as 'skewed tenants' have no options to continue their housing career. According to the Dutch government, the municipalities in Dudok Wonen's working area and Dudok Wonen, the skewed tenants should move, in order to make room for low income households. This process is often referred to as filtering. To stimulate these filtering processes, Dudok Wonen has introduced an 'intermediate rental segment' in the regional housing market. The main research question for this thesis is *'How do the intermediate rental segment and associated housing allocation procedures which Dudok Wonen offers contribute to the desired filtering processes in the municipalities Gooise Meren and Hilversum?'*

In Dudok Wonen's working area, situated in the region Gooi en Vecht, shortages are present in the regional housing market. This has been established by research agency RIGO, in 2013. The target groups affected by these shortages are the lower and middle income target groups. Municipalities Gooise Meren and Hilversum recognize these shortages and state that efforts to combat shortages should be focussed on these target groups. This should be done by creating more dynamic in the regional housing market, by stimulating filtering chains. Middle or higher income households currently residing in the regulated rental segment should move, in order to make room for more low income households. To realise this, supply should be added in the €710,68 to €900 price range, and households which can afford to do so, should be triggered to move to these dwellings.

Dudok Wonen has agreed to commit to this ambition, and has introduced the intermediate rental segment, which they offer exclusively to middle income households. This intermediate rental segment features dwellings priced between €710,68 and €850, and should provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment. Households that have moved to a dwelling in the intermediate segment should find that their dwelling is better than the dwelling they resided in in the regulated rental segment, but they should still experience triggers to continue their housing career. To find out more about why households move, what thresholds need to be overcome before they move, and what influences their final decision to move, literature concerning residential mobility has been consulted. This has ultimately resulted in the creation of a conceptual model, which can be seen in figure 7, found on page 28.

From the literature concerning residential mobility, we learnt that households assign a sense of 'place utility' to their current housing situation, and will start to consider moving if they become dissatisfied with this sense of place utility. This sense of place utility is dependent on the household's relative job market or life cycle position, as these shape the households housing preferences, which in turn affect how a household experiences a dwelling and its quality aspects. Households that move due to dissatisfaction with place utility take primary action. There are also scenario's in which households are forced to move, either due to job-market cycle-related reasons, or due to life-cycle related reasons, without being dissatisfied with their sense of place utility. These households take secondary action when moving.

The households taking primary will only move when a desirable option becomes available to them, while households taking secondary action often find there is urgency with their desire to move, and have to make do with what is available at the moment. The options households have in the regional housing market are limited due to constraints, which can be housing market related (in terms of supply and affordability), or housing governance related (what kind of mortgage the household can receive, or whether if an income statement is needed to become a tenant of a certain type of dwelling).

This mixed methods research has been conducted to find out to what extent the intermediate rental segment contributes to the desired filtering processes in the municipalities Gooise Meren and Hilversum. To do this, three research methods have been selected; a quantitative comparison of the regulated, intermediate and unregulated rental segments, a structured web-survey distributed amongst tenants of the regulated rental dwellings offered by Dudok Wonen and semi-structured interviews, targeting tenants of the intermediate rental segment dwellings. An overview of the research methods and topics they should answer can be seen in figure 8, found on page 32.

By comparing the regulated, intermediate and unregulated rental segments, we found that there is not much supply in the unregulated rental segment that connects to the regulated segment in terms of price. Most of the supply in the unregulated rental segment is priced above the €1000 mark, and is therefore out of reach for middle income households. This implicates that only a small portion of the unregulated rental dwellings are viable options for middle income households. In this small portion of the housing market, middle income households also face competition from higher income households that are looking for affordable dwellings. The majority of the unregulated rental dwellings are of higher quality than the regulated rental dwellings, and are priced considerably higher. In terms of price/quality ratio, however, the regulated segment turns out to be most beneficial for tenants. The rental prices of the two segments show a larger difference than the quality aspects do, indicating a price-quality gap. We also found that the intermediate rental segment holds true to its name, being intermediate in terms of price, dwelling and location quality aspects, as well as price/quality ratio. The intermediate rental segment, as offered by Dudok Wonen, appears to be a happy medium between the regulated and unregulated rental segments, and so appears to be suitable to bridge the price-quality gap between the regulated and the unregulated rental segments. The difference in quality between the regulated and the intermediate rental segment is more likely to be based on dwelling aspects rather than location aspects. The unregulated rental segment appears to be situated in overall better neighbourhoods, while offering more surface area and rooms.

The addition of the intermediate rental segment also means that there are more dwellings which are suitable for middle income levels in the regional housing market. This added supply is reserved only for middle income households, which means that a lot of the competition from higher income households looking for affordable dwellings is negated. With the introduction of an intermediate rental segment for middle income households, the number of options middle income households have in the regional housing market increases. The intermediate rental segment is suitable for fulfilling Dudok Wonen's goal, which was to provide middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment, in order to initiate moving chains amongst middle income households from the regulated to the unregulated rental segment.

From the conducted web-survey amongst tenants in Dudok Wonen's regulated rental dwellings, we found that only slightly more than half of the middle income households knows about the intermediate rental dwellings being offered on the market, and that the number of households that is interested in these intermediate rental segment is even lower. The most commonly named reason for households

to not be interested is that the supply in the intermediate rental segment does not suit their housing preferences, even though most of these households state that they do prefer a rental dwelling, and state that quality aspects are more important than price aspects when it comes to selecting options to move to. The lack of knowledge amongst middle income households that reside in a regulated rental dwelling concerning the intermediate rental segment implies that a lot of households that are part of the target group for this segment cannot consider it as an option to move to. Besides this, the fact that the intermediate rental segment only differs in terms of dwelling size makes them attractive only for households that consider dwelling size to be an important criteria.

Next to this, the price-quality ratio doesn't appear to be the decisive reason for households to experience a low place utility, but that the quality of their current dwelling is. However, the responses may have been distorted by some sort of desirability bias.

The conducted interviews with inhabitants of the intermediate rental segment offered by Dudok Wonen have revealed that a vast majority of the households that have moved to the intermediate rental segment have done so taking primary action. These households were dissatisfied with their former housing situation. This dissatisfaction is most commonly attributed to (prospective) developments in their life-cycle, and housing preferences are most commonly linked to dwelling characteristics. Most of the households that have moved to the intermediate rental segment have done so because they believe that their current dwelling offers a better future perspective for their household than their former housing situation did. Nearly all filtered households state that they experience a greater place utility in the intermediate rental segment than they experienced in the regulated rental segment. For filtered households, this is most commonly attributed to an increase in dwelling quality aspects, rather than neighbourhood quality aspects. Starting households that have moved to the intermediate rental segment perceive their current dwelling as a good opportunity for them to start their housing career. The most important aspect for starting households is the fact that they have (re)gained their independence by having a place for their own. All other aspects appear to be subordinate to them regaining their independence.

Although all of the responses state that they were looking for a rental dwelling at the time of moving, further questioning has revealed that this is in fact not the actual preferred tenure status for a majority of the respondents. Nearly all of the respondents indicate that an owner-occupied dwelling would be their ideal tenure status. They believe that owner-occupied dwellings are more empowering and hold certain financial benefits over rental dwellings. The price/quality ratio of their former housing situation didn't contribute greatly to this groups dissatisfaction with the place utility connected to their former housing situation, as most of the filtered respondents found that their price/quality ratio in the regulated rental segment was agreeable. The price/quality ratio does however, appear to play a large role in selecting appropriate moving options.

The intermediate rental segment dwellings which the households are living in at the moment are a substitute of their actual preferred tenure status, which is to live in an owner-occupied dwelling. However, due to the contemporary housing market, the intermediate rental segment is a satisfying solution for these households. In overall, the respondents have stated that their relocation went well for their household. However, it is possible that this may be a result of cognitive dissonance.

9.1 Conclusion and Recommendations

In conclusion, we can state that the intermediate rental segment offered by Dudok Wonen is doing fairly well at contributing to the desired filtering processes in the municipalities Gooise Meren and

Hilversum, as it conforms to the housing preferences of an (albeit small) portion of the middle income target group, and the households that have moved to the intermediate rental segment are satisfied with their decision to do so. The intermediate rental segment makes it easier for middle income households living in regulated rental dwellings to continue their housing career, as it lowers the threshold for households to move, by offering an option for these households to move to higher quality dwellings against a price increase that isn't as harsh as it is in the unregulated rental segment.

The housing allocation procedures that come with the intermediate rental segment also has a positive influence on the number of options which middle income households have in the regional housing market, and positively influences the balance of supply and demand for affordable housing for middle income households. This positive effect is reached by offering the intermediate rental segment exclusively to middle income households, meaning that they face less competition from higher income households. However, the fact that the intermediate rental segment dwellings are subtracted from the regulated rental dwelling supply, and 50% of the intermediate rental segment dwellings are assigned to filtered households, negatively impacts the regulated rental dwelling supply.

This research has created some valuable insights in what housing preferences middle income households have, and what considerations middle income households make when they decide to move. These insights have shown that even though the intermediate rental segment is doing fairly well at contributing to the desired filtering processes, there are some areas in which it is lacking. For these areas, some recommendations are posed for Dudok Wonen in the following section.

9.1.1 Recommendations for Dudok Wonen

Although the intermediate rental segment as it is, is already contributing to the desired filtering processes, some of the findings in this report suggest that in some areas, improvements can be made. The recommendations posed in this section should enable the intermediate rental segment to further stimulate the desired filtering processes.

1. Dudok Wonen should not only select dwellings for the intermediate rental segment based on dwelling quality aspects, but also take into account the location characteristics of the dwellings.

This research has revealed that the intermediate rental segment does offer more quality than the regulated rental segment does, but that this quality increase is found mainly in dwelling size. The intermediate rental segment appears to lack a greater quality in location or other dwelling quality aspects. Although a large portion of the middle income households residing in regulated rental dwellings prioritize dwelling quality aspects when selecting options to move to, an almost equally large portion of this target group finds location aspects to be more important. It is unlikely that the households that do not prioritize dwelling quality aspects will find attractive housing options amongst the dwellings in the intermediate rental segment, meaning that a large portion of the target group will not be interested in moving to the intermediate rental segment. The intermediate rental segment will supply more households with triggers to move if the part of the target group that's looking for a higher location quality is served as well. The intermediate rental segment will supply more households with triggers to move if the part of the target group that's looking for a higher location quality is served as well.

2. Dudok Wonen should to put more effort in advertising the intermediate rental segment amongst their target group. This could be done by sending information to the middle income households.

A relatively large portion of the middle income households residing in a regulated rental dwelling is not aware of the intermediate rental segment being offered on the market. Households that are not aware of options to move to are not able to consider these options as moving options. This means that at the moment, a large portion of the middle income households cannot be interested in the intermediate rental segment. Advertising the intermediate rental segment will solve this issue.

3. When advertising the intermediate rental segment, Dudok Wonen should put more emphasis on the dwelling quality aspects rather than price when advertising intermediate rental segment dwellings.

Price aspects play a secondary role when households are selecting moving options; first the attractiveness of the options is considered, and later the households will check if they are able to afford the option. This is linked to the reason why households want to move.

Moving is (almost) never a goal itself, but is a mean for households to reach the goals they've set. This research indicates that most households think that a housing situation with increased quality aspects can help them reach their goal. As such, the higher quality aspects of the intermediate rental segment will more likely supply households with a trigger to move than the price aspect of the dwellings. Besides, as the intermediate rental segment is designed to be affordable to middle income households, the price aspect should not be a large obstacle for the middle income households.

4. Most of the dwellings in the intermediate rental segment are priced at the higher end of the segments envisioned price range. 75% of the dwellings in the segment feature rent levels of €800 or higher. A more even spread in basic rent levels can trigger more households to move to the intermediate rental segment.

More than half of the middle income households residing in Dudok Wonen's regulated rental dwellings state that they do not want to spend more on their housing situation than they currently do in the regulated rental segment. For these households, the price increase to the intermediate rental segment is too harsh at the moment. A more even spread of rent levels in the intermediate rental segment in their intended price range (€710,68 to €850), will ensure that the intermediate rental segment appeals to a broader range of middle income households.

5. Dudok Wonen should use the intermediate rental segment as a bespoke instrument, to realise one ambition. Currently, Dudok Wonen uses the intermediate rental segment to realise two ambitions. On one hand, Dudok Wonen wishes to stimulate the desired filtering processes, while on the other, they want to supply starting households with 'real opportunities' in the regional housing market. From this research, however, it becomes clear that starting households and filtering households need to overcome different thresholds before they move.

For starting households, the primary objective appears to be 'to have a place of their own', while filtering households appear to have developed specific needs, relating to their life cycle and their current housing situation. Starting households appear to have a lower threshold to move, and are satisfied with less than the filtering households. Effectively, the thresholds that need to be overcome for starting households are affordability and availability, while the filtering households also need to overcome a quality threshold. The intermediate rental segment is designed to overcome this quality threshold as well. By assigning the dwellings in the regulated rental segment to starting households, Dudok Wonen does not use the higher quality dwellings to their full potential.

9.1.2 Recommendations for Dutch housing policy

In this report, Dudok Wonen's critique concerning the instruments handed to them through the contemporary Dutch housing policy has been described in section 2.3. Their critique mainly concerns the income dependent raises in rent levels for 'skewed tenants'. The income dependent raises in rent level is an instrument introduced to discourage households from becoming a skewed tenant, and to push households to move by increasing their current rental price. Dudok Wonen is clear on their vision regarding income dependent raises in rent levels for skewed tenants. They describe this instrument as an ineffective 'push' measure. They state that this instrument is ineffective due to 1) the price/quality difference between the regulated and the unregulated rental segment currently is such that this measure will not work in the short term and that 2) this measure is only effective if there are options for middle income households to move to.

The large differences between the housing segments in the region has also been named by the municipality of Gooise Meren, who states that the rental housing segment and the owner occupied housing segment operate as two different markets, due to high prices in the owner-occupied market and the lack of an intermediately priced rental segment are obstructing the desired dynamic in the regional housing market. The lack of supply for middle income households is also named by the municipality of Hilversum, who states that the lack of adequate supply for middle income households is the largest obstruction for the creation of moving chains in the Hilversum housing market.

The results of this research substantiate these statements. The quantitative comparison described in chapter 6 has revealed that there is indeed very little supply in the price range most suitable for middle income levels. Next to this, the supply which is reachable for middle income households does not provide any increases in quality, while it does feature a substantially higher rental price. The regional housing market simply does feature interesting options for households to move to from the regulated rental segment. Pushing households to move will not result in residential mobility, as there are no options for middle income households to move to.

Meanwhile, the structured web-survey has revealed that willingness to move is not an issue amongst the middle or higher income households residing in the regulated rental segment dwellings offered by Dudok Wonen. 58,7% of middle or higher income households residing in Dudok Wonen's regulated rental segment stated that they are interested in moving in the next two years. This begs the question: are push measures even necessary? Instead of introducing push measures, housing policy makers should focus more on increasing the number of options available to middle income households.

10. Discussion

This research has been conducted to find out to what extent the intermediate rental segment contributes to realising the goal which Dudok Wonen has set. Dudok Wonen started offering the intermediate rental segment in order to stimulate the desired filtering processes in their working area. They want to achieve this by providing middle income households with options in the regional housing market which offer a higher quality than the dwellings in the regulated rental segment do, against a price which isn't as harsh as it is in the unregulated rental segment. The intermediate rental segment should bridge a gap between the regulated and the unregulated segment, in order to trigger more middle income households to move from the regulated to the unregulated rental segment.

First, the most important findings are presented and reflected upon. What do these findings and entail? Why are these findings important? The second section concerns some unexpected findings and results. Why are these findings and results surprising? Can they be explained by literature, or are they the result of certain biases or limitations relating to my research methods? In the third section, the measure to which the findings in this research are able to support the problem statement is presented. Do the findings and results of this research support the problem statement? The fourth section discusses the measure to which I have been able to answer the main research question for this thesis, before recommendations for future research on this subject are posed in section 5.

10.1 Most important findings

In this section, the main findings from literature and research are presented briefly. The segment starts out by presenting the most important findings from the literature review, before pointing out the most important results from the research methods and analyses.

The literature review

In Dudok Wonen's working area, shortages are found in the regional housing market. The primary target group and middle income households suffer the most at the hand of these shortages, due to the fact that only a small portion of the housing market is available to them, and they experience a lot of competition from other target groups for the dwellings in this small portion. The Municipalities in this area have concluded that the solution for this target group is to create more dynamic in the regional housing market. Creating more dynamic in the regional housing market should be done by initiating filtering chains. Supply should be added in the lower end of the unregulated rental segment, and households that are able to, should be triggered to move to these dwellings from their regulated rental dwellings.

Dudok Wonen agrees to this vision, and has therefore introduced the intermediate rental segment in the regional housing market. The intermediate rental segment should trigger middle income households residing in the regulated rental segment to move, by filling the price/quality gap between the regulated and the unregulated rental segments. This should make it more attractive for the middle income households to move. To find out how households are triggered to move, and what keeps certain households from moving, literature concerning residential mobility has been consulted. From this literature review, it became clear that households take either primary or secondary action when moving. Households taking primary action move because they are dissatisfied with the place utility of their current housing situation. Place utility is a representation of the dwelling and location characteristics of a dwelling, and what use these characteristics have relating to the households job market or life cycle position. Households taking secondary action do not move because they are dissatisfied with their current place utility, but move because are forced by incidents in their job market or life cycle. Dudok Wonen wants households to be triggered to take primary action when moving from

the regulated to the unregulated rental segment. The intermediate rental segment should supply the middle income households with this trigger.

The literature review has revealed that the introduction of the intermediate rental segment by Dudok Wonen is in line with the residential visions which the municipalities in Dudok Wonen's working area have drawn up. It also reveals that the way Dudok Wonen wants the intermediate rental segment to trigger households to move is in line with the contemporary theory which is available concerning residential mobility. To find out to what extent the intermediate rental segment contributes to this goal, three research methods have been selected; a quantitative analysis in which the regulated, intermediate and unregulated rental segments are compared, a web survey amongst tenants of Dudok Wonen's regulated rental segment, as well as interviews with inhabitants of the intermediate rental segment.

The quantitative analysis

The quantitative analysis, in which the regulated, intermediate and unregulated rental segments have been compared, has yielded some interesting results. Most importantly, the comparison of the regulated and the unregulated rental dwellings has revealed that there is a considerable price/quality gap between the two segments, and that the number of options which are available to middle income households in the regional housing market is limited, and that it is unlikely that middle income households residing in regulated rental dwellings will be triggered to take primary action by the existing supply in unregulated rental segment. The intermediate rental segment turns out to be a happy medium between the regulated and unregulated rental dwellings, by offering more quality aspects than the unregulated rental dwellings which are available to middle income households, while the price increase isn't as large. The quantitative analysis also revealed that, although the intermediate rental segment does offer more quality than the regulated rental segment does, this quality difference is mainly based on dwelling aspects rather than location aspects.

The results of the quantitative analysis reveal that the intermediate rental segment is fit for its purpose. The intermediate rental segment expands the number of options middle income households have in the regional housing market, and its price/quality ratio is such that in theory, it should supply middle income households residing in the regulated rental segment a trigger to take primary action in moving.

The analysis of the web-survey

The analysis of the web-survey, set out amongst tenants of Dudok Wonen's regulated rental dwellings, has resulted in some valuable insights in the housing preferences of middle income households amongst this population, and their interest in the intermediate rental segment. This analysis revealed that, although most of the middle income households that are looking to move are indeed looking for rental dwellings, more than half of these households are not willing to pay more for their housing situation than they do at the moment. It also revealed that although a considerable portion of the households are looking for housing options with increased dwelling quality aspects, a similarly sized portion of the households aren't, as these households prioritize location quality aspects. This is an important result, as the quantitative comparison of the rental segment revealed that the intermediate rental segment does not offer more quality in terms of location than the regulated rental segment does. This implies that a considerable portion of the middle income households residing in the regulated rental segment will not be triggered to take primary action.

Besides housing preferences, the web-survey also gave enough information to gauge how many middle income households are interested in the intermediate rental segment. First off, only slightly more than half of the middle income households stated that they knew about the intermediate

rental segment being offered on the market. The lack of knowledge concerning the supply of intermediate rental segment seriously limits the number of households which are able to consider the dwellings in this segment as options to move to. Second, of the households that know about the intermediate rental segment, a majority states that they are not interested in the dwellings offered as part of this segment. This lack of interest is mainly attributed to the fact that the dwellings offered in the intermediate rental segment do not suit their housing preferences. This isn't surprising, considering the answers which the middle income households have given regarding their desired rent levels, and prioritized dwelling characteristics.

The analysis of the interview responses

The interviews, held with the inhabitants of the intermediate rental segment dwellings, have created insight in the reasons why middle income households move to the intermediate rental segment, and how they reflect on their decision to move. The interviews have revealed that a vast majority of the respondents have taken primary action when they moved to the intermediate rental segment. Most of the respondents indicated that they were unhappy with their former housing situation due to dwelling characteristics, which didn't match their current life-cycle position. Nearly all of the filtered households that were interviewed indicate that they needed a larger dwelling, as they believed this would be beneficial for their households' future perspective. The starting households were predominantly looking for a place for their own, and didn't emphasize the need to move to a better quality dwelling. All households that have taken primary action when moving were satisfied with their new housing situation. The price/quality ratio of their former dwelling was rarely mentioned as a reason why the interviewed filtered households wanted to move. It was, however, often mentioned as one of the selection criteria, when looking for appropriate housing options. These results are important, as they indicate that the intermediate rental segment dwellings are attractive housing options for households that desire better quality dwellings. They also substantiate Dudok Wonen's theory that base their decision to move on the price/quality ratio of dwellings.

Almost all interviewed households mentioned that even though they were looking for a rental dwelling at the time, they ultimately would prefer to live in an owner-occupied dwelling, rather than a rental dwelling. It appears to be so that the situation on the contemporary regional housing market has influenced the preferences of the interviewed households. This is interesting, as it indicates that although rental dwellings aren't what the households desire, but that they are satisfying substitutes for middle income households in the contemporary regional housing market.

The findings presented in this section can be considered important as they either help substantiate the reasoning behind the intermediate rental segment as an instrument to initiate the desired processes, or are important indicators concerning the functioning of the intermediate rental segment. Although the findings presented here are very useful, not every result was anticipated. In the next section of this discussion chapter, the surprising or unexpected results are presented and reflected upon.

10.2 Inconsistencies, possible biases or limitations affecting results

In this section, surprising or unexpected results are discussed. All three analyses performed in this research have yielded results which weren't expected. The literature review did not, and is therefore excluded from this section. The results presented in this section are the results that either are not consistent with the consulted literature, or may have been affected by possible biases. Much like the former section, first results from the quantitative analysis in which the three rental segment have been compared are discussed. This is then followed by the analysis of the web-survey responses, followed by the analysis of the interview responses.

The quantitative analysis

The quantitative analysis in which the regulated, intermediate and unregulated rental segment have been compared hasn't yielded any results that were inconsistent with the found literature. The quantitative comparison has, however, yielded an unexpected result. This unexpected result has been a product of section 6.3, in which the differences between the three segment are explained. Here, the comparison yielded the result that the quality differences between the regulated and the intermediate rental segment are mainly due to the differences in dwelling size, as none of the other examined variables (the neighbourhood status score, as well as the number of rooms) have resulted in notable differences.

The lack of a notable difference in neighbourhood status score can be explained, and has to do with how the intermediate rental segment has come to be. The intermediate rental segment consists mainly out of ex-regulated rental dwellings, which have been selected by Dudok Wonen to be offered as an intermediate rental dwelling rather than a regulated rental dwelling. With this in mind, it is no more than logical that the selected dwellings are still located in the same neighbourhood as the regulated rental dwellings. The lack of a notable difference in the number of rooms is more surprising, and could be the result of the characteristics of the regulated rental segment dwellings. In a scenario in which all of the regulated rental dwellings features featured the same number of rooms, it would be logical for the intermediate rental segment to have this same characteristic, as the intermediate rental segment consists out of dwellings which used to be part of the regulated rental segment. However, from the analysis in section 6.3, we learn that this isn't the case. The regulated rental segment features dwellings with a wider range in number of rooms per dwelling than the intermediate rental segment does.

The lack of difference in number of rooms in the intermediate rental segment could be the result of Dudok Wonen's selection process, which would imply that the selection was based on dwelling size, and other quality aspects haven't been taken into account. However, it can also be accrued to the desirability of dwellings with more rooms. This would imply that the households living in dwellings are less inclined to move, and that these dwellings mutate less often. Although it is clear that the dwellings found in the intermediate rental segment are generally larger than the dwellings found in the regulated rental segment. It is, however, not reasonable to state that Dudok Wonen has based their selection of dwellings for the intermediate rental segment solely on dwelling size. This is due to the limitations of the data used for the comparisons. The data concerning the regulated and intermediate rental segments did not feature quality characteristics like dwelling type, nor did it feature data concerning plot areas or the existence and size of private outdoor space connected to the dwelling.

The analysis of the web-survey

The web-survey analysis has yielded results that are possibly distorted by a bias amongst the population, and one result that is inconsistent with the found literature.

The results that have possibly been affected by a bias concern the desired rent levels of households looking to move, and how the respondents have rated their current rent level. In section 7.2, it became clear that most of the middle income households that responded to the web-survey have indicated that they want to move, and that when they want to move, they would want to move to a dwelling with a rental price corresponding to the regulated rental dwellings. For these middle income households, this desire isn't feasible, as they are not eligible to move to dwellings with these rent levels. This could indicate that the middle income households have responded untruthful to this particular question in the survey.

It might however, be unreasonable to assume that every middle income household knows about this restriction. However, in the survey there was another point in the survey where the respondents may have had a bias in responding. In section 7.3, it became clear that the households that want to move generally live in smaller dwellings than the households that do not want to move, and that the households that live in smaller dwellings pay similar rent levels as households that live in larger dwellings. However, both groups perceive their rent level in the same way. This seems unnatural, as one would expect that households that live in a smaller dwelling would be more unsatisfied with their rent level than households that live in larger dwellings. This would be due to the lower price/quality ratio found in the smaller dwellings. This, however, does not appear to be the case. In fact, all middle income households had the tendency to respond by stating that they find that their current rent level is too high. Because both these questions concerning rental price show unexpected results, it is possible that the responses to these questions may be distorted by some form of desirability bias. Seeing as the survey has been distributed by the housing association they're a tenant of, the respondents may have deviated from their true answer due to the belief that their true answer may negatively influence their future rent levels.

Another unexpected result can also be found in section 7.3. Here, it became clear that in neighbourhoods with a higher social status score, a higher percentage of households desires to move. This result is inconsistent with the consulted literature regarding residential mobility. From the literature review regarding residential mobility, it became clear that the location of a dwelling influences the place utility households experience in their housing situation, and that households with a high sense of place utility would be less inclined to move. Following this line of reasoning, one would expect that households living in neighbourhoods with a higher status score would be less inclined to move than households that live in lower scoring neighbourhoods. However, this does not appear to be the case. Middle income households residing in higher scoring neighbourhoods might be more often inclined to move because of their surroundings. In higher scoring neighbourhoods, more high-income households can be found, along with higher quality dwellings. These higher income households may lead by example, making them a model to for the responding households to follow. There is, however, far to less evidence to support a claim like this.

This inconsistency could also be the result of the characteristics of the regulated rental dwellings, in combination with a participation bias amongst the respondents. The result here may be skewed as there are more regulated rental dwellings in lower scoring neighbourhoods, meaning that higher status score neighbourhoods feature less respondents. This, in combination with the fact that is not unthinkable that unsatisfied households were more inclined to respond to the web-survey than households that aren't unsatisfied can have influence the outcome here.

The analysis of the interview responses

The interview responses may have been influenced by certain biases as well, not only amongst the respondents. In this section, a possible bias amongst the respondents is discussed. During the interviews, nearly every respondent has stated that they are satisfied with their relocation, even though some of the households have stated that there are certain aspects in their new housing situation which they are unsatisfied with.

All of the respondents that have taken primary action had the idea that their relocation to a housing situation with different quality aspects would improve the future perspectives for their household. In the interviews, however, multiple households indicated that there were some aspects that weren't as desirable as they presumed they would be. One example of this is household D5, who stated that they were looking for a larger dwelling at the time of moving, but in the process ended up in an environment that didn't suit their life-cycle position in the slightest. He states that in the process of moving, they

failed to take into account the locational characteristics of their future housing situation. He then continued by stating that what they gained in dwelling quality made up for lacking living environment of their new housing situation. Another example was household D2, who was initially looking for a dwelling in Amsterdam, but ended up in Hilversum. Nevertheless, he indicates that the new housing situation is exactly what they were looking for, and that he didn't mind relocating his household to Hilversum. Later on in the interview he invalidated this statement by saying that moving to Hilversum negatively impacted his contact with his friends that still live in Amsterdam. This statement was then immediately dismissed; the respondent stated that all of his friends were probably going to move out of Amsterdam as well.

Only two households were 'brave' enough to state that they had overlooked some aspects at the time of moving, and that they are unsatisfied because of this, without trying to justify these wrong decisions afterwards. Both of these answers came from female respondents, while none of the male showed any remorse connected to their decision making. Although it is possible that all interviewed households are indeed satisfied with their relocation, the responses may very well be distorted at the hand of cognitive dissonance. If this is the case, the observation that female respondents appear to be less vulnerable for this is interesting, and makes me wonder what results the interviews would have yielded, had I only interviewed exclusively male or exclusively female respondents.

10.3 Backing up the problem statements

Relating the results of the research to the problem statement helps solidify the problem statement, as well as the research results. For this reason, in this section the problem statement described in the introduction is compared with the findings presented in this report. In this report, however, more problem statements can be found, as the municipalities have drawn up problem statements in order to devise a residential vision. To what extent do the findings presented in this report substantiate these problem statements?

The general problem statement

This report starts out by stating that there is a shortage in affordable rental dwellings in the unregulated rental segment. Due to this lack of supply, only a small portion of the housing market is available to middle income households. This means that starting households have no opportunities to start their housing career, and that middle income households in the regulated rental segment do not have any options to continue their housing career.

This problem statement is substantiated by the results of the quantitative analysis in which the regulated and the unregulated housing segments are compared, which can be found in section 6.1 of this report. The results show that there is indeed only a relatively small portion of the housing market available to middle income households, as their income level keeps them from being able to move to the more expensive dwellings in the unregulated rental segment, while they aren't eligible to move to a regulated rental dwelling. The analysis performed in section 6.5, in which the options that are available to middle income households in the unregulated rental segment are compared to the unregulated rental segment, further substantiates this problem statement, by making clear that the options in the unregulated rental segment are far more expensive than the regulated rental dwellings, while they do not offer more quality. This implies that the options available in the unregulated rental segment aren't suitable options for middle income households to continue their housing career from the regulated rental segment. In section 8.5, this issue is backed up by the statements made by the interviewed households. Most of the respondents indicate that finding options to move to was not an easy task, either due to their income level being too low, or due to the lack of supply which was available to them.

Problem statements in regional residential visions

In section 2.1 of this report, the residential visions of the municipalities active in Dudok Wonen's working area are explained, along with the issues these municipalities want to solve to improve the contemporary housing market situation. In this section, these issues are related to the results of this research.

The municipality of Hilversum states that there is a structural deficit of dwellings for middle income households, and that there is a very limited supply of middle-expensive unregulated rental dwellings (with rent levels ranging between €710,69 to €900). This limited supply of middle-expensive unregulated rental dwellings limits the ability for middle income households to move out of their regulated rental dwelling. To top it all off, the municipality of Hilversum states that the owner-occupied rental segment isn't an option for these households, particularly due to the sharpened mortgage requirements. The municipality of Gooise Meren states that the lower and middle income households need extra attention, as these households have fewer options in the regional housing market than other households have. Supply for middle income households in the unregulated rental segment or owner-occupied segment is limited.

The statements concerning the options available to the options middle income households have in the unregulated rental segment are similar to the general problem statement described in the introduction of this report, and are substantiated by the same results mentioned in the section above. Although statements regarding the options middle income households have in the owner-occupied housing market cannot be substantiated with the results of this report, the results of the interviews with households that have moved to the intermediate rental segment do shed some light on this matter. In section 8.5 of this report, the interviewed households reveal that they would ultimately prefer to live in an owner-occupied dwelling, as they find that owner-occupied dwellings are more empowering and financially more beneficial. They indicate that they didn't move to an owner-occupied dwelling due to market circumstances: prices rising too fast, their income level is too low at the moment, or they do not have a permanent contract.

10.4 The measure to which the main research question can be answered

After having discussed the most important findings, unexpected findings and inconsistencies or possible biases, the extent to which the main research question for this thesis can be answered is reflected upon in this section. The main research question for this thesis read *'How do the intermediate rental segment and associated housing allocation procedures which Dudok Wonen offers contribute to the desired filtering processes in the municipalities Gooise Meren and Hilversum?'*

The quantitative analysis in which the regulated, intermediate and unregulated rental segments were compared revealed that the intermediate rental segment in theory should be able to trigger households to move. This is due to the fact that it generally offers higher quality dwellings than the regulated rental segment does, while they can still be considered affordable for middle income households. However, the analysis of the web-survey responses revealed that not all of the middle income households residing in Dudok Wonen's regulated rental segment dwellings are interested in the type of quality characteristics the intermediate rental segment offers. The intermediate rental segment appears to only offer a larger dwelling quality, and thus it does not serve the households that have other housing preferences. Next to this, the web-survey responses have revealed that a considerable number of middle income households are not willing to spend more on their housing situation, and that a considerable number of the middle income households residing in the regulated rental segment dwellings offered by Dudok Wonen do not know about the intermediate rental segment being offered on the market.

These findings suggest that although the intermediate rental segment should in theory supply middle income households with triggers to move, the number of households that will effectively be triggered by the supply of intermediate rental dwellings is low. This is due to the variety of housing preferences which the middle income household have, and the lack of knowledge concerning the intermediate rental dwellings amongst the target group. The results of the interviews with households that have moved to the intermediate rental segment indicated that most of these households were looking for dwellings with increased dwelling quality aspects compared to their former housing situation, and that they are satisfied with their decision to move.

Based on the results of the performed analyses in this report, I have been able to conclude that the intermediate rental segment offered by Dudok Wonen is doing fairly well at contributing to the desired filtering processes in the municipalities Gooise Meren and Hilversum. The quantitative analysis in which the regulated, intermediate and unregulated rental segments have been compared has resulted in an objective description of the intermediate rental segment, which could then be tested with the information retrieved from the literature review. Although this quantitative analysis had its limitations, it still did supply a basic understanding of how the intermediate rental segment compares to the other segments. The web-survey, distributed amongst tenants of Dudok Wonen's regulated rental segment, has yielded enough responses for me to be able to accurately perform a statistical analysis with, which has revealed how the middle income households amongst this population perceive the intermediate rental segment. The interviews conducted with households that have moved to the intermediate rental segment have yielded in largely reliable information concerning the reasons why households move to the segment and how they experience the dwellings in the segment. This can be accrued to the fairly thorough interview guides which have been used to conduct the interviews, which allowed me to ask respondents similar questions and ensure that all of the respondents provided information concerning the same topics. The selected research methods have allowed me to give a relatively complete and reliable answer to the posed main research question for this thesis.

10.5 Discussion of the posed recommendations

After having answered the main research question, recommendations have been posed for Dudok Wonen and Dutch housing policy in general in section 9.1. In this section these recommendations are discussed. What are the implications of these recommendations? This section starts out by discussing the recommendations made for Dudok Wonen, after which the recommendations for Dutch housing policy are discussed.

Concerning the recommendations posed for Dudok Wonen

The recommendations for Dudok Wonen, described section 9.1.1 of this report, have been posed as the results of this research suggest that these measures will improve the extent to which the intermediate rental segment contributes to the desired filtering processes in Dudok Wonen's working area. In this section, the practical implications of these suggestions are discussed per suggestion.

1. *Dudok Wonen should not only select dwellings for the intermediate rental segment based on dwelling quality aspects, but also take into account the location characteristics of the dwellings.*

The idea here is that a broader range of quality aspects will trigger more households to move, as not all households are interested in larger dwellings. However, this is easier said than done, as it requires extensive knowledge concerning the dwellings owned by Dudok Wonen. Next to this, the way in which the intermediate rental segment is created may also be an obstacle. The intermediate rental segment is created by selecting dwellings from the regulated rental segment. This means that although Dudok Wonen can select higher quality dwellings, they will still be located in the same neighbourhoods and locations as the other regulated rental segment dwellings.

- 2. Dudok Wonen should to put more effort in advertising the intermediate rental segment amongst their target group. This could be done by sending information to the middle income households.*

The lack of knowledge concerning the intermediate rental segment is seriously limiting the number of households that is interested in the intermediate rental segment. This obstacle can easily be overcome by advertising the intermediate rental segment properly. This is a low cost and high impact measure, but does require Dudok Wonen to know the income levels of their tenants. Only the middle income households need to know about the intermediate rental segment. If Dudok Wonen were to know the income levels of their regulated rental segment tenants, they can supply the correct households with information relatively easily.

- 3. When advertising the intermediate rental segment, Dudok Wonen should put more emphasis on the dwelling quality aspects rather than price when advertising intermediate rental segment dwellings.*

Currently, intermediate segment housing is advertised primarily with the affordability aspect. Although affordability is an important boundary condition in the process of moving for most middle income households, the results of this research indicate that price aspects play a secondary role when households are selecting moving options; first the attractiveness of the options is considered, and later the households will check if they are able to afford the option.

- 4. Most of the dwellings in the intermediate rental segment are priced at the higher end of the segments envisioned price range. 75% of the dwellings in the segment feature rent levels of €800 or higher. A more even spread in basic rent levels can trigger more households to move to the intermediate rental segment.*

The structured web-survey revealed that most households are not interested in the rental prices offered in the intermediate rental segment. However, the semi-structured interviews revealed that although households do have a target rental price in mind, there is also a range of 'acceptable' rental prices. The intermediate rental segment is designed to be priced in the €710,68 to €850 price range, but it turns out that 75% of the dwellings in the intermediate rental segment are priced at €800 or higher. Having more dwellings priced in the lower end of this price range will make the intermediate rental segment appeal to more middle income households.

- 5. Dudok Wonen should use the intermediate rental segment as a bespoke instrument, to realise one ambition. Currently, Dudok Wonen uses the intermediate rental segment to realise two ambitions. On one hand, Dudok Wonen wishes to stimulate the desired filtering processes, while on the other, they want to supply starting households with 'real opportunities' in the regional housing market. From this research, however, it becomes clear that starting households and filtering households need to overcome different thresholds before they move.*

Dudok Wonen is trying to serve two target groups with one instrument, while these target groups need to overcome different thresholds to move. Making the intermediate rental segment a bespoke instrument for stimulating filtering processes will make it a more efficient instrument. Starting households should be catered with another instrument. In practice, this means that the intermediate rental segment could be split up into two segments; one which focusses solely on affordability and availability, and is aimed at starting households, and one which focusses on affordability, availability and quality, aimed at filtering households.

Dutch housing policy

In section 9.1.2 of this report, a recommendation was posed for Dutch housing policy makers. Policy makers should focus less on introducing push measures to stimulate filtering processes, and put more emphasis on creating suitable options for middle income households to move to. Dudok Wonen, as well as municipalities in Dudok Wonen's working area conclude that the lack of options for middle income households is the largest obstacle to a more dynamic housing market. The results of this research indicate that a majority of middle or higher income households residing in regulated rental segment dwellings are interested in moving, but that the lack of options for these households is indeed what keeps them from moving. As was described in the introduction of this report, housing shortages are not an issue which is unique to Dudok Wonen's working area. Neither is the issue of 'skewed tenants', which is exactly why national housing policy has been adapted to counter these issues.

This research however, has had a strong focus on Dudok Wonen's working area. The quantitative analysis of the rental segments has been limited to this particular region, and the households that have been approached with the social research methods (the semi-structured interviews and the structured web-survey) may not be representative for the whole of the Netherlands. How can recommendations on a larger scale be posed based on the results of this research? Although the results of this research are based on a specific population and area, the number of households that have indicated that they are interested in moving in the next two years is large enough to assume that a large portion of middle or higher income households residing in regulated rental dwellings of other housing associations are interested in moving as well.

Next to this, the semi-structured interviews shed some light on what triggers households need in order to move and what thresholds they encounter when looking for appropriate moving options. The middle income households which have been interviewed mention restrictions induced by housing market regulations. Respondent D4 was particularly clear on these matters, stating that her employment status kept her from being able to move to owner-occupied options, that her income level is not sufficient for the unregulated rental segment, and that she also isn't eligible to move to a regulated rental dwelling. Next to this, when options were available, they often were not desirable options to move to. Especially the filtering households reported this. These responses are insightful, as the interviewed households did not limit their search for housing to Dudok Wonen's working area.

Based on these findings, I concluded that push measures (like the income dependent raises in rent level) will not be effective in getting middle or higher income households to move from the regulated rental segment dwellings. Push measures are only effective if there are options available for households to be pushed to, which does not appear to be the case.

11. Reflection

This chapter features a reflection on the graduation subject. It first explores the relationship between the research subject and the selected graduation lab, Housing Market Analysis, after which the scientific relevance for the field of housing research is reflected upon. In the section that follows, the outcomes of this graduation project in the light of the wider framework is discussed, before some ethical issues and dilemmas are discussed. The next section features a reflection on the selected research methods.

11.1 The relationship between this graduation subject and housing market analysis

This master thesis is connected to the graduation lab 'Housing Market Analysis', part of the section Housing. This graduation lab attempts to provide an end-user perspective on housing market change. For decades, Dutch housing policy had a strong focus on quantitative housing shortages. In the contemporary Dutch housing market, these quantitative housing shortages have become less of an issue, and the focus has shifted to the qualitative aspects of the housing market rather than the quantitative aspects. Because of this, more knowledge concerning housing preferences of consumers and choices these consumers make in relation to the contemporary housing market is necessary, meaning that more qualitative information need to be created. This particular master thesis concerns the efforts of housing association Dudok Wonen, active in the municipalities Gooise Meren and Hilversum, in the region Gooi en Vecht, that wants more households to be housed according to their income level. This thesis focusses on evaluating their efforts to initiate more filtering chains, with a particular focus on middle income households that are currently residing in regulated rental dwellings.

The instrument Dudok Wonen has selected for this is the introduction of an intermediate rental segment, which is offered exclusively to middle income households. The addition of this segment should trigger middle income households residing in the regulated rental segment to move by offering a more beneficial price/quality ratio than the unregulated rental segment does. To find out to what extent the intermediate rental segment is contributing to the desired filtering processes in the municipalities Gooise Meren and Hilversum, multiple research methods have been selected. The intermediate rental segment has been compared to the other rental segments in Dudok Wonen's working area, through a quantitative analysis focussing on price, quality and price/quality ratios. Next to this, a web-survey has been distributed amongst tenants of Dudok Wonen's regulated rental segment, and interviews have been conducted with households that have moved into the intermediate rental segment.

11.2 The scientific relevance of this research

The aforementioned developments of Dutch housing market policy have resulted in a need for qualitative research. Although not all research methods selected for this research have been qualitative, the social research methods which have been used were able to provide valuable insight in the following topics: 1) the relation between housing preferences and consumer choice behaviour, and 2) the relationship between development of house prices and rent increases, and substitution effects because of this development.

First off, the results of this research largely confirm the theories regarding residential mobility which have been identified through the literature analysis. No substantial anomalies with the conceptual model based on theories described by Priemus (1984), Bouwmeester (2004) and Beer et al. (2011) have been identified.

The web-survey conducted in order to find out what housing preferences the middle income households have, has provided valuable information regarding the housing preferences of middle

income households. This information is needed to find out to what extent the intermediate rental segment offered by Dudok Wonen supplies the households with triggers to move. The interviews conducted with households that have moved to the intermediate rental segment has provided valuable insight in consumer choice behaviour, as well as substitution effects due to price developments in the regional housing market. Next to this, the main research goal, which was to find out to what extent the intermediate rental segment contributes to initiating filtering processes, reveals that instruments like the addition of an intermediate rental segment that focusses on providing housing with a suitable price/quality ratio rather than merely a suitable price can contribute to initiating filtering processes.

11.3 This graduation project and the wider framework

Although the outcomes of this research particularly describe the situation in the working area for Dudok Wonen, the outcomes can be very meaningful for housing policy in the Netherlands, as has been discussed in the conclusion and discussion chapters of this report. The Dutch government states that regulated rental dwellings should be reserved only for low-income households. 'Skewed tenants', which are middle or higher income households that are residing in a dwelling, should move in order to make room for lower income households. To make this happen two measures have been introduced; an income restriction for the regulated rental segment, and income dependent raises in rent levels for households with a middle or higher income level residing in the regulated rental segment. (Woningwet2015.nl, n.d.)

For middle income households this means that the regulated rental segment is no longer an option for them to move to, as their income level is too high for them to be eligible to rent in the regulated rental segment. The middle or higher income households that are currently residing in the regulated rental segment can face income dependent raises in rent levels, which should ultimately make the households want to move due to the high rent levels. The latter measure which has been introduced has been described by Dudok Wonen as a 'push measure'. Dudok Wonen states that this measure is not effective, as push measures are only effective if there is a supply of dwellings which this target group can be pushed to. The outcomes of this research support this statement, which is why in the conclusion chapter of this report, a recommendation has been posed to Dutch housing policy makers to focus less on implementing these push measures, and focus more on increasing the number of options available for middle income households to move to.

Although it is true that there have been policy changes which should benefit the number of options middle income households have in the regional housing market, these policy changes have focussed strongly on price characteristics of dwellings. One example of this is the regulation that extra WWS points can be assigned to dwellings smaller than 40 square meters in the areas of Amsterdam and Utrecht. Assigning extra points to these dwellings allows them to be let in the unregulated rental segment, making them accessible to middle income households. The issue with these efforts is that although they do result in more affordable dwellings for middle income households, these dwellings are not attractive options for middle income households due to a decrease in dwelling quality. (De Huurcommissie, n.d.)

The affordable supply which is being created lacks the needed dwelling quality aspects which are needed to supply households with a trigger to move. The web-survey results have revealed that there are a lot of middle income households in the regulated rental segment that do want to move, but are not able to as there are no options for them to move to. An income dependent raise in rent level will not change this situation. Meanwhile, the interview results revealed that households feel the desire to move because they want to live in a dwelling which is more suitable for their (prospective) life-cycle position. This is often accompanied by the desire for more dwelling quality, meaning that when

households look for options to continue their housing career in, they primarily look at the dwelling quality of housing options. It therefore is unlikely that affordable dwellings with lower quality will be considered attractive moving options by middle income households, and thus these dwellings will not contribute to the desired filtering processes.

Dudok Wonen is achieving the desired filtering processes not by forcing households to move, but by lowering the threshold for households that want to move to reach the desired filtering processes. The outcomes of this research show that it's also possible to stimulate filtering from the regulated to the unregulated rental segment with pull triggers, rather than push triggers. Changing the Dutch housing policies so that it allows for more pull triggers would benefit the filtering processes which the Dutch government desires.

11.4 Ethical issues and dilemmas

This master thesis features a research which has been conducted in order to find out how an instrument devised by a housing corporation contributed to the desired filtering processes in their working area. In this section some ethical issues and dilemmas concerning the outcomes of the research, implications of the intermediate rental segment as an instrument to initiate filtering processes and the desired filtering processes are discussed.

Dwelling quality as an instrument

This research has revealed that quality differences between housing segments can positively influence the desired filtering processes. The addition of an intermediate rental segment can be effective in reaching filtering processes, but only if this intermediate rental segment offers more quality than the dwellings which households move out of. However, an implication of this outcome is that the regulated rental segment should feature lower quality dwellings than other segments, in order to effectively initiate filtering processes.

At a first glance, this situation appears to be unavoidable. Offering affordable dwellings implies that there is a limit concerning the quality aspects that can be provided with the dwellings, as the organisations offering affordable dwellings have to deal with budget constraints. This is clearly visible in results of this research; the unregulated rental segment, in which a broader range of prices can be asked, features a much broader range in dwelling and neighbourhood quality aspects than the restricted regulated rental segment features. However, the method with which Dudok Wonen has established the intermediate rental segment further decreases the quality aspects of the affordable dwellings. By picking the higher quality dwellings from the regulated rental segment to be part of the intermediate rental segment, only lower quality dwellings remain in the regulated rental segment.

This raises the question whether it is desirable to house lower income households exclusively in lower quality dwellings, so that they are more inclined to move if they ever experience a raise in income level. The answer to this question depends on what is prioritized by a person or an organisation. Should households mainly be housed according to their income level, or should they be housed in dwellings which are appropriate for their household demographic?

The desired filtering processes

The desired filtering processes have a strong focus on middle income households residing in regulated rental dwellings. These households, often referred to 'skewed tenants', should move in order to make room in this regulated rental segment for lower income households. But are skewed tenants really an issue? In the contemporary societal debate this does appear to be the case, but is this justified? In 2016, de Groene Amsterdammer published an article in which the public debate concerning the topic of skewed tenants was discussed thoroughly.

Skewed tenants are not a new phenomenon in the Dutch Housing market. The term 'scheefwonen' was first coined in the eighties, by then secretary of the Dutch state Enneüs Heerma, who took upon himself the task to change and reformulate Dutch public housing. This reformulation created distinctions between cheap, affordable and expensive rental dwellings, which formed the basis of public housing as we know it today. In the year 2000, the then secretary of state Johan Remkes considered the battle against skewed tenants to be dismissed, stating that households with higher income levels in otherwise poor neighbourhoods would have a positive influence on countering the issue of segregation. In 2009, however, the topic became part of the societal debate again, after the European Commission found that only low income households should be eligible to reside in regulated public housing. This judgement was then adopted by minister Stef Blok, who turned countering the issue of skewed tenants into a policy. This has results in the income dependent raise in rent levels discussed earlier in this report, which should force skewed tenants to leave their cheap dwellings, to make room for the households that really need them. (Van Eijck & Naafs, 2016)

As mentioned in the introduction of this report, the most important issue is that skewed tenants unfairly occupy subsidized dwellings. However, the view that skewed tenants profit from subsidies which come directly from the state treasury is a wrong observation, as households that earn too much compared to their rent level do not receive rent allowance. Next to this, the Dutch government does not directly subsidize the realisation of regulated public housing any more, but vouches for loans which housing associations need to realise more dwellings, in a similar fashion as they do for households that buy an owner-occupied dwelling with a mortgage. In fact, most subsidies in the Netherlands go to owners of owner-occupied dwellings, in the form of a tax rebate on mortgage interests. (Van Eijck & Naafs, 2016)

Although the middle or higher income households living in regulated rental dwellings do not profit from subsidies supplied by the Dutch government, they still benefit from subsidies. In the contemporary situation, these subsidies are supplied by the owner of the regulated rental segment dwelling. While writing this report, I purposely tried to remain neutral concerning the topic of skewed tenants, while acknowledging the role this topic has in the contemporary societal debate. As a result of this debate, skewed tenants are almost criminalized, and are confronted with policy changes designed to force them to move. However, middle or higher income households residing in the regulated rental segment are not residing there illegally. These households were eligible to move to regulated rental segment dwellings at the time of moving, and should therefore have as much right to live in those dwellings as other households that were eligible to move to a regulated rental segment dwelling have. Besides this, the results of this research show that regulated rental segment dwellings generally offer less quality, and that a majority of the middle income households that reside in the regulated rental segment actually desire to move due to the low quality of the dwellings they are residing in, in order to continue their housing career and job market and life cycles. They just do not have any options to move to.

Next to this, the societal debate and the policy changes have had a strong focus on 'cheap' skewed tenants, while their counterpart, 'expensive' skewed tenants (low income households residing in dwellings that actually are too expensive for their income level), appear to receive far less attention. It appears to be so that both the cheap as well as the expensive skewed tenants are victims of the same lack of supply in the Dutch (rental) housing market, and that there is no point in criminalizing one of the two groups, or implementing policy changes which pressurizes either of the two groups. The lack of options for middle income households is the main issue that needs to be tackled.

11.5 The selected research methods

This report featured a mixed methods research. Three research methods have been selected; a quantitative price/quality assessment, in which the regulated, intermediate and unregulated rental segments have been compared, a structured web-survey, which has been distributed amongst tenants of Dudok Wonen's regulated rental segment, as well as semi-structured interviews, which were conducted amongst tenants of Dudok Wonen's intermediate rental segment. In this final section of the report, the selection of the research methods is reflected upon, as well as the main obstacles encountered while carrying out the research.

Reflection on method selection

The quantitative price/quality assessment has been selected in order to be able to analyse the intermediate rental segment. The decision to include this quantitative analysis was based on Dudok Wonen's vision regarding the intermediate rental segment. Dudok Wonen believes that price/quality ratios play a large role in the decisions households make in the housing market, and that the contemporary housing market in their working area lacks quality triggers for middle income households. The role Dudok Wonen wants this segment to fulfil require the dwellings in this segment to have specific properties, as they should be of higher quality than the regulated rental segment, while being more affordable than the unregulated rental segment dwellings. The quantitative analysis has been performed in order to find out whether if the intermediate rental segment fulfils the role Dudok Wonen has envisioned for it.

Next to evaluating the characteristics of intermediate rental segment offered by Dudok Wonen, the behaviour of middle income households on the housing market also had to be uncovered. To do this, a structured web-survey has been distributed amongst the tenants of Dudok Wonen's regulated rental segment dwellings, and interviews have been conducted with households that have moved to the intermediate rental segment.

The structured web-survey had to be sent to all households residing in Dudok Wonen's regulated rental segment dwellings, as Dudok Wonen did not have any information regarding the income levels of their tenants. It was therefore impossible to single out the middle or higher income households in this population. A structured web-survey is, as is discussed in section 5.2, an effective tool to reach out to a large population. The web-survey has ultimately been filled in by 806 respondents, of which 139 were middle or higher income households. Although most of the responses were not relevant for my research, the responses of the lower income households were valuable information for Dudok Wonen. This had been anticipated upon, which is why the web-survey had been adapted to include several questions upon Dudok Wonen's request.

Contrary to the households in the regulated rental segment dwellings offered by Dudok Wonen, the income levels of the households residing in the intermediate rental segment were known, as being a middle income households is a boundary condition for being able to move to one of the dwellings offered as part of the intermediate rental segment. However, the intermediate rental segment did not feature a population as large as the regulated rental segment. This means that a structured web-survey would probably not yield enough respondents to perform statistical analysis with. Because of this, the decision was made to opt for semi-structured interviews instead. An added benefit of this was that semi-structured interviews allowed me to uncover more in-depth information using follow-up questions, resulting in qualitative information.

To ensure that the questions for the structured web-survey and the structured interviews were linked to the consulted literature regarding residential mobility, the questions for the structured web-survey

as well as the structured interviews have been prepared using a conceptual scheme. The concepts which were leading for this scheme were linked to the conceptual model regarding residential mobility.

Main obstacles while carrying out the research

In order to perform the quantitative analysis in which the regulated, intermediate and unregulated rental segments have been compared, appropriate variables had to be selected. Besides the availability of the data, the reliability was an important factor as well. Due to the nature of Dudok Wonen's ambition concerning the intermediate rental segment, variables representing price and quality had to be selected. Table 21 shows which variables have been selected to represent price aspects, dwelling quality aspects and location quality aspects, along with the sources of the information used for the variables.

	Selected variables	Regulated rental segment	Intermediate rental segment	Unregulated rental segment
Price	Basic rent level	Dudok Wonen	Dudok Wonen	Funda.nl
Dwelling quality	Dwelling surface area	Dudok Wonen	Dudok Wonen	Funda.nl
	Number of rooms	Dudok Wonen	Dudok Wonen	Funda.nl
Location quality	WOZ value	WOZwaardeloket.nl	WOZwaardeloket.nl	WOZwaardeloket.nl
	SCP status score	SCP	SCP	SCP

Data concerning the regulated rental segment, as well as the intermediate rental segment was supplied by Dudok Wonen. The SCP status scores for the dwellings have been added afterwards, which was done on the basis of the postal codes of the dwellings. The remaining issue, however, was that the label these dwellings had did not represent their current rented state. Instead, the dwellings were labelled according to their 'policy label', which indicates what rental segment the dwellings are going to be a part of after mutation. As a result of this, the current rental price of a lot of dwellings in this dataset did not represent the label of the dwellings appropriately (for example, most of the dwellings labelled as 'intermediate rental segment' were still being let as regulated rental segment dwelling, and featured rental prices corresponding to the regulated rental segment rather than the intermediate rental segment). To correct this, the current status of the dwellings had to be extracted manually from Dudok Wonen's Viewpoint system. After this was done, this dataset was ready to be used for the analysis.

Data concerning the unregulated rental segment was collected manually from Funda.nl. In overall, this process took 1,5 months. This time was needed to make sure all dwellings in the dataset featured their basic rent level, were being let without furniture and were all situated in Dudok Wonen's working area. Next to this, several dwellings didn't make the cut, as the WOZ value of the dwellings had to be available, which was not the case for all dwellings (due to some of them being situated in the same complex as retail properties). After the datasets were completed and ready for use, appropriate methods to illustrate the results of the analysis were needed. The goal here was to use one type of graph, to make the results of the comparisons comprehensive for the reader of this report. After trying out several graph types, I opted for the 'box and whisker' graphs, as they not only clearly

illustrate the differences between the segments, but also reveal information regarding the quartiles and median of the data.

As mentioned in section 5.2 of this report, a structured web-survey is an easy, cost effective method to reach out to a large population. The reason why a large population had to be reached was that Dudok Wonen did not have any information regarding the income levels of their regulated rental segment tenants, while only the responses of middle income households were needed. From meetings with their tenants' interests association, Dudok Wonen could tell that their tenants would not be fond of income related questions posed in a survey sent from the address of Dudok Wonen. Despite the survey being anonymous, the income related questions have led to a high degree of non-response. While creating the survey, I had to deal with conflicting interests; on one hand I wanted to make the survey as short as possible, to avoid partial nonresponse, while on the other hand I wanted to gather as much information as possible. Another challenge was to make the survey comprehensive for all respondents. Luckily, the communication advisors and real estate agents at Dudok Wonen were able to help out with comprehensively formulating all of the questions in the survey. These factors made creating the web-survey a lengthy process. After creating 11 versions of the web-survey, the survey was ready to be sent.

The preparations for the semi-structured interviews were less extensive than the preparations for the structured web-survey. The interview guides for the semi-structured interviews turned out to be quite extensive, but after having practised the interviews with several employees of Dudok Wonen, this didn't appear to be an issue. The interview guides were fine-tuned a final time after the first interview (with respondent D1) had been conducted. The largest problem encountered with the semi-structured interviews was the low number of households that were interested in participating in the interviews. Reaching out to the potential respondents by phone was also a lengthy process, which often was discouraging due to the large number of uninterested households.

As was already discussed in section 10.4 of this report, the selected research methods have enabled me to give a satisfactory answer to the main research question for this thesis. By conducting a mixed methods research, I was able to answer how the intermediate rental segment contributes to the desired filtering processes in theory, as well as how it actually functions and is perceived by the target group, being middle income households.

Acknowledgements

To conclude this graduation project, I would like to take the opportunity to express my very great appreciation to my main TU Delft mentors, Harry van der Heijden and Gerard van Bortel, for their contagious enthusiasm concerning the topics discussed in this graduation report, and for taking the time for the progress meetings which took place nearly every two weeks. During these progress meetings, my products were thoroughly discussed, and sometimes, especially later on in the graduation process, when I felt more confident about my knowledge concerning the subjects, sparked interesting discussions. The discussions we've had during these meetings have contributed greatly to the outcomes of this research, and motivated me to continue the graduation process.

My special thanks are also extended to everyone at Dudok Wonen, not only for allowing me to execute my graduation research at their wonderful company, but also for the interesting conversations I have had with their employees. Next to this, they were particularly helpful by trial running the web-survey and acting as test subjects for the semi-structured interviews. In particular I would like to thank Linda and Rozemarijn, who have helped me out immensely with their advice and feedback on my products, which have ultimately led to the satisfying results of this graduation project.

Besides thanking my TU Delft mentors and the people at Dudok Wonen, I would also like to take this opportunity to thank everyone who has kept me company while working on this report and those who have offered themselves as sparring partners during the analysis of the research results. In particular I would like to thank my brother, Ebe, who ten days from now will find himself in the same boat as I am in now. He was always able to help me out with sound advice concerning the interviews I desired to conduct, and was able to help me put things in perspective with his strongly inspirational quotes.

I also want to ventilate my sincere appreciation to everyone who has helped by proof-reading parts and sections of this report, or sacrificed themselves by listening to earlier versions of my graduation presentation.

Finally, I would like to thank Aline, for her unconditional support during both the ups and downs of this graduation process. I cannot count the number of times in which I have asked her for help, or the times she painstakingly read through my texts and theories.

References

- Aedes (2017). *Inkomens- en huurprijsgrenzen 2018*. Retrieved from <https://www.aedes.nl/artikelen/klant-en-wonen/huurbeleid/huurprijbeleid/inkomens--en-huurprijsgrenzen-2018.html>
- Beer, A., Faulkner, D., & Paris, C. (2011). *Housing transitions through the life course: aspirations, needs and policy*: Policy Press
- Booi, H., de Graaff, L., & van Diest, M. (2018). *Wonen in de Metropoolregio Amsterdam 2017*. Retrieved from https://www.ois.amsterdam.nl/pdf/2018_Wonen%20in%20de%20Metropoolregio%20Amsterdam%202017.pdf
- Boumeester, H. (2004). Duurdere koopwoning en wooncarrière. *Een modelmatige analyse van de vraagontwikkeling aan de bovenkant van de Nederlandse koopwoningmarkt, Delft, DUP Science (Proefschrift)*.
- Bryman, A. (2016). *Social research methods*: Oxford university press.
- Clapham, D. (2002). Housing pathways: A post modern analytical framework. *Housing, theory and society*, 19(2), 57-68.
- De Huurcommissie. (n.d.). *Extra puntentoekenning regio's Amsterdam en Utrecht*. Retrieved from <https://www.huurcommissie.nl/onderwerpen/corop-gebieden-amsterdam-en-utrecht/>
- Dudok Wonen. (2017a). *Strategie 2017+ Samen Vooruit*. Retrieved from <https://www.dudokwonen.nl/media/1699/strategie-samen-vooruit-dudok-wonen.pdf>
- Dudok Wonen. (2017b). *Productenmix 2017-2027*.
- Dudok Wonen. (2018). *Jaarverslag 2017 Samen Vooruit*. Retrieved from <https://www.dudokwonen.nl/media/1804/2017-volkshuisvestelijk-jaarverslag-dudok-wonen.pdf>
- Dudok Wonen. (n.d.). *Portefuilleplan 2017-2027: Sturen op een toekomstbestendige vastgoedportefuille*.
- Eigenhuis.nl. (n.d.) *Regels hypotheekverstrekking*. Retrieved from <https://www.eigenhuis.nl/hypotheeken/regels-hypotheekverstrekking>
- Van Eijck, G., & Naafs, S. (2016). Paria van de woningmarkt. *De Groene Amsterdammer*. Retrieved from <https://www.groene.nl/artikel/paria-van-de-woningmarkt>
- Gemeente Gooise Meren (2017). *Woonvisie Gooise Meren 2017-2025*. Retrieved from https://bestuur.gooisemeren.nl/fileadmin/user_upload/wind_meetings/315897_Bijlage_1_Woonvisie_Gooise_Meren.pdf
- Gemeente Hilversum (2016) .*Woonvisie Hilversum 2016-2020. Beweging op de woningmarkt*. Retrieved from <https://online.ibabs.eu/ibabsapi/publicdownload.aspx?site=hilversum&id=100035502>
- Gemeente Hilversum (2017). *Prestatieafspraken Hilversum 2017-2020. Waarin de mens centraal staat*. Retrieved from <https://api1.ibabs.eu/publicdownload.aspx?site=hilversum&id=100151386>
- Goetgeluk, R., & Hooimeijer, P. (2002). The evaluation of Decision Plan Nets for bridging the gap between the ideal dwelling and the accepted dwelling. *CyberGeo: European journal of geography*, 226.
- Huurwoningen.nl (n.d.). *Inkomenseis*. Retrieved from <https://www.huurwoningen.nl/info/inkomenseis/>
- Kain, J. F., & Quigley, J. M. (1970). Measuring the value of housing quality. *Journal of the American statistical association*, 65(330), 532-548.
- Kromhout, S., & Zeelenberg, S. (2013). *Meer zicht op betaalbaarheid. Betaalbaar wonen in de regio Gooi en Vechtstreek*. Retrieved from <https://www.regiogv.nl/wp-content/uploads/2018/02/20130919-meer-zicht-op-betaalbaarheid-rigorapport.pdf>

- Noord-Holland (2010). *Provinciale Woonvisie 2010-2020: Goed Wonen in Noord-Holland*. Retrieved from https://www.noord-holland.nl/Onderwerpen/Bouwen_wonen/beleid/Provinciale_Woonvisie_2010_2020.org
- NOS (2017). Betaalbare huurwoningen voor middeninkomens: hardnekkig probleem. *NOS*. Retrieved from <https://nos.nl/artikel/2172307-betaalbare-huurwoningen-voor-middeninkomens-hardnekkig-probleem.html>
- NOS (2018). Huurwoningen in vrije sector duurder en duurder, ook buiten grote steden. *NOS*. Retrieved from <https://nos.nl/artikel/2230856-huurwoningen-in-vrije-sector-duurder-en-duurder-ook-buiten-grote-steden.html>
- Pellenburg, P. H., & Van Steen, P. J. (2005). Housing in the Netherlands. Spatial variations in availability, price, quality and satisfaction. *Tijdschrift voor economische en sociale geografie*, 96(5), 593-604.
- Pittini, A., & Laino, E. (2011). Housing Europe review 2012: the nuts and bolts of European social housing systems. *CECODHAS Housing Europe's Observatory*, 1-35.
- Priemus, H. (1984). *Verhuistheorieën en de verdeling van de woningvoorraad*.
- Regio Gooi en Vechtstreek (2017). *Regionaal Actieprogramma Wonen 2016-2020*. Retrieved from https://www.noord-holland.nl/Onderwerpen/Bouwen_wonen/Woonbeleid/Regionale_actieprogramma_s_wonen/Regionaal_Actieprogramma_Gooi_en_Vechtstreek.org
- Regio Gooi en Vechtstreek (n.d.). *Woonvisie Regio Gooi en Vechtstreek 2016-2030*. Retrieved from https://bestuur.gooisemeren.nl/fileadmin/Beleidsnota_s/Wonen/Regionale_Woonvisie_Gooi_en_Vechtstreek_2016-2030.pdf
- Rijksoverheid. (2017). *Regeerakkoord 2017: 'Vertrouwen in de toekomst'*. Retrieved from <https://www.rijksoverheid.nl/regering/documenten/publicaties/2017/10/10/regeerakkoord-2017-vertrouwen-in-de-toekomst>
- Rijksoverheid. (2018). *Nationale woonagenda 2018-2021*. Retrieved from <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/publicaties/2018/05/23/nationale-woonagenda-2018-2021/nationale-woonagenda-2018-2021.pdf>
- Rijksoverheid. (n.d.). *Hypotheekregels*. Retrieved from <https://www.rijksoverheid.nl/onderwerpen/koopwoning/hypotheek>
- Rijksoverheid. (n.d.). *Totstandkoming WOZ-waarde*. Retrieved from <https://www.wozwaardeloket.nl/index.jsp#>
- Rossi, P. H. (1955). *Why families move: A study in the social psychology of urban residential mobility*: Free Press.
- SCP (2018). *Statusscores*. Retrieved from https://www.scp.nl/Onderzoek/Lopend Onderzoek/A_Z alle lopende onderzoeken/Statuscores
- Van Middelkoop, M., & Boumeester, H. (2014). Modelling housing preferences using decision tables: Method and empirical illustration. *PBL Working Paper 16*.
- Visser, P., van Dam, F., & Noorman, N. (2006). *De prijs van de plek: Woonomgeving en woningprijs*: NAi Uitgevers.
- Waarderingskamer. (2017). *Rapport van bevindingen onderzoek naar de kwaliteit van de taxaties: Gooise Meren*. Retrieved from <https://www.waarderingskamer.nl/document/272eed9e10e59d18f205b6808a74cce10261e664/gooise-meren-2017-01-12-kwaliteit-taxaties-samenvatting/dl/>
- Waarderingskamer. (2018). *Rapport van bevindingen onderzoek naar de kwaliteit van de taxaties: Hilversum*. Retrieved from <https://www.waarderingskamer.nl/document/5c7a006dbeae81fc7c96d8b113d930f84d16a56c/hilversum-2018-01-10-kwaliteit-taxaties-samenvatting/dl/>
- Wildt, R. d., & Dorst, H. (2012). *Prijs en kwaliteit, nieuwbouw versus bestaand*. Retrieved from <https://www.neprom.nl/Downloads/algemeen/prijs-en-kwaliteit-nieuwbouw-en-bestaand.pdf>

- Woningwet2015.nl. (n.d.). *Inkomensgrens Woningtoewijzing*. Retrieved from <http://www.woningwet2015.nl/kennisbank/daeb/wonen/inkomensgrens-woningtoewijzing>
- Woonzorg.nl. (n.d.). *Inkomenseisen*. Retrieved from https://www.woonzorg.nl/ik_zoek/onze_dienstverlening/inkomenseisen
- Ymere. (n.d.). *Toewijzingseisen vrije sector huur*. Retrieved from <https://www.ymere.nl/aanbod/vrije-sector-huur/toewijzingseisen-vrije-sector-huur.html>
- Zanting, H., & Wezel, M. v. (n.d.). *De Doorstroomkloof*. Retrieved from <https://www.dudokwonen.nl/media/1463/blog-doorstroom.pdf>

Survey Flow

Block: Blok 1: Socio-demographic (8 Questions)

Standard: Blok 2: place utility, satisfaction with dwelling and neighbourhood (9 Questions)

Standard: Blok 3: Residential mobility I (2 Questions)

Block: Blok 4 - Residential mobility II (21 Questions)

Standard: Blok 5: einde enquête (5 Questions)

Page Break

Start of Block: Blok 1: Socio-demographic

Alvast hartelijk dank voor uw medewerking!

Heeft u vragen over de enquête? Neem dan contact op met Sjoerd Blok via s.blok@dudokwonen.nl

De eerste paar vragen gaan over uw huishouden.



Q1 In welk jaar bent u geboren?

Q2 Uit hoeveel personen bestaat uw huishouden (uzelf meegerekend)?

- 1 (1)
 - 2 (2)
 - 3 (3)
 - 4 (4)
 - 5 of meer (6)
-

Q3 Wat is de samenstelling van uw huishouden?

- (echt)paar zonder thuiswonende kinderen (1)
- Alleenstaande met een of meer thuiswonende kinderen (2)
- (echt)paar met een of meer thuiswonende kinderen (3)
- Alleenstaand (4)
- Anders, namelijk (5) _____



Q4 Wat zijn de vier cijfers van uw postcode?

Q5 Ontvangt u huurtoeslag?

- Nee (1)
- Ja (2)
- Weet ik niet (3)

Skip To: End of Block If Ontvangt u huurtoeslag? = Ja

Q6 Is het bruto jaarinkomen van uw huishouden hoger of lager dan €36.798?

- Hoger (1)
- Lager (2)
- Weet ik niet (3)

Skip To: End of Block If Is het bruto jaarinkomen van uw huishouden hoger of lager dan €36.798? = Hoger
Skip To: End of Block If Is het bruto jaarinkomen van uw huishouden hoger of lager dan €36.798? = Lager

Q7 Wat is het netto maand inkomen van uw huishouden ongeveer?

- Minder dan €2400 (1)
- Tussen €2400 en €2700 in (2)
- Meer dan €2700 (3)
- Weet ik niet (4)

De volgende vragen gaan over uw woning en buurt.

Q8 In wat voor woning woont u?

- Twee-onder-een-kapwoning (2)
 - Rijtjeshuis, tussenwoning of hoekwoning (3)
 - Beneden- of bovenwoning (4)
 - Appartement zonder lift (5)
 - Appartement met lift (6)
 - Anders, namelijk... (7) _____
-

Q9 Wat is het totale woonoppervlak (in m2) van uw woning?

- Kleiner dan 40 m2 (1)
 - 40 tot 60 m2 (2)
 - 60 tot 80 m2 (3)
 - Groter dan 80 m2 (4)
 - Weet ik niet (5)
-

Q10 Geef aan hoe tevreden u in het algemeen bent met uw woning.
In deze schaal is 1 'zeer ontevreden' en 10 'zeer tevreden'.

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)
- Geen mening (11)



Q11 Hoeveel bedraagt uw maandelijkse kale huur? De kale huur van uw woning betreft alleen de kosten voor het daadwerkelijke huren en niet voor service kosten zoals gas, water en licht.

- € (1) _____
- Weet ik niet (2)

Skip To: Q13 If Hoeveel bedraagt uw maandelijkse kale huur? De kale huur van uw woning betreft alleen de kosten v... = €



Q12 U heeft aangegeven niet te weten hoeveel uw kale huurprijs bedraagt, weet u wel hoeveel u maandelijks kwijt bent aan de kosten voor uw woning?

- ja, € (1) _____
- Weet ik niet (2)
-

Q13 Wilt u aangeven welke keuze voor u van toepassing is: Ik vind de kosten van mijn woning ..

- Veel te hoog (1)
- Te hoog (2)
- Precies goed (3)
- Te laag (4)
- Veel te laag (5)
- Geen mening (6)
-

Q14 Als de kosten van een woning (huur incl. servicekosten en belastingen) toenemen, wordt soms besloten om op zoek te gaan naar een andere woning.
Stel dat de kosten van uw huidige woning toenemen, met welk bedrag moeten deze dan toenemen

voordat de prijs/kwaliteit verhouding van uw woning een reden is voor u om op zoek te gaan naar een andere woning?

- Ik ben op dit moment al van plan om te verhuizen vanwege de hoge huur (2)
 - Met €50 (10)
 - Met €100 (6)
 - Met €150 (7)
 - Met €200 (8)
 - Met meer dan €200 (18)
 - Ik wil niet weg uit mijn woning (5)
 - Weet ik niet (3)
-

Q15 Geef aan hoe tevreden u bent met uw woonomgeving. Onder woonomgeving worden de buurt en de voorzieningen in de buurt verstaan.

In deze schaal is 1 'zeer ontevreden' en 10 'zeer tevreden'.

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)
- Geen mening (11)

End of Block: Blok 2: place utility, satisfaction with dwelling and neighbourhood

Start of Block: Blok 3: Residential mobility I

Q16 Wilt u binnen twee jaar verhuizen?

- Beslist niet (1)
 - Eventueel wel/misschien (2)
 - Zou wel willen, kan niets vinden, zie geen mogelijkheden (3)
 - Beslist wel (4)
 - Nee, ik heb al andere huisvesting gevonden (5)
-

Display This Question:

If Wilt u binnen twee jaar verhuizen? = Beslist niet

Or Wilt u binnen twee jaar verhuizen? = Eventueel wel/misschien

Q17 Wat zouden voor u redenen zijn om niet te verhuizen? Meerdere antwoorden zijn mogelijk.

- Woon hier nog maar net/pas verhuisd (1)
- Huidige woning is goed (2)
- Buurt bevalt goed (3)
- Dichtbij werk/studie/school van de kinderen (4)
- Dichtbij familie/vrienden (5)
- Mijn leeftijd (6)
- Mijn (onzekere) financiële situatie (7)
- De situatie op de woningmarkt (8)
- Aanbod aan koopwoningen is nu te duur (9)
- Aanbod aan huurwoningen is nu te duur (10)
- Wachttijden woningnet zijn te lang (11)
- Kan niets geschikts vinden (12)
- Ik kom niet aan een geschikte hypotheek, door de aangescherpte hypotheekisen (13)
- Anders, namelijk... (14) _____

End of Block: Blok 3: Residential mobility I

Start of Block: Block 4 - Residential mobility II

Display This Question:

If Wilt u binnen twee jaar verhuizen? = Eventueel wel/misschien

Or Wilt u binnen twee jaar verhuizen? = Zou wel willen, kan niets vinden, zie geen mogelijkheden

Or Wilt u binnen twee jaar verhuizen? = Beslist wel

Q18 Wat is/zijn de reden(en) voor uw verhuiscens? Meerdere antwoorden zijn mogelijk.

- Wil groter wonen (1)
 - Wil kleiner wonen (2)
 - Wil mooier/beter wonen (3)
 - Heb geen of een te kleine tuin/balkon (4)
 - Omstandigheden in het huishouden (samenwonen, gezinsuitbreiding, scheiding, overlijden) (5)
 - Omstandigheden in werk of studie (6)
 - Woning is te duur (7)
 - Mijn gezondheid (8)
 - Woning niet gelijkvloers/te veel trappen (9)
 - Slechte kwaliteit woning (10)
 - Huurcontract loopt af (11)
 - Wil kopen in plaats van huren. (12)
 - Buurt bevalt niet meer (13)
 - Wil dichterbij familie en vrienden wonen (14)
 - Anders, namelijk... (15) _____
-

Display This Question:

If Wilt u binnen twee jaar verhuizen? = Eventueel wel/misschien

Or Wilt u binnen twee jaar verhuizen? = Zou wel willen, kan niets vinden, zie geen mogelijkheden

Or Wilt u binnen twee jaar verhuizen? = Beslist wel

Q19 Op welke termijn wenst u te verhuizen?

- Zo snel mogelijk (1)
- Binnen 6 maanden (2)
- Over 6 tot 12 maanden (3)
- Over 12 tot 24 maanden (4)
- Over meer dan 24 maanden (5)

Display This Question:

If Wilt u binnen twee jaar verhuizen? = Eventueel wel/misschien

Or Wilt u binnen twee jaar verhuizen? = Zou wel willen, kan niets vinden, zie geen mogelijkheden

Or Wilt u binnen twee jaar verhuizen? = Beslist wel

Q20 De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toekomstige woonplaats. Kunt u hier al vragen over beantwoorden?

- Nee (1)
- ja (2)

Display This Question:

If De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = ja

Q21 Welke van de volgende locaties zijn aantrekkelijke verhuisoorties voor u? Meerdere antwoorden zijn mogelijk.

- Almere (2)
- Bussum (5)
- Hilversum (9)
- Muiden (3)
- Naarden (4)
- Andere locatie(s), namelijk... (6) _____

Display This Question:

If De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = ja

Q22 Bent u op zoek naar een koopwoning of een huurwoning?

- Koopwoning (1)
- Huurwoning (2)
- Beide / Geen voorkeur (3)
- Weet ik niet (4)

Display This Question:

If Bent u op zoek naar een koopwoning of een huurwoning? = Koopwoning

Or Bent u op zoek naar een koopwoning of een huurwoning? = Beide / Geen voorkeur



Q23 Indien u zou kopen, wat voor een koopprijs zou u bereid zijn maximaal te betalen?

- € (1) _____
- Ik heb hier nog niet over nagedacht (2)

Display This Question:

If Bent u op zoek naar een koopwoning of een huurwoning? = Huurwoning

Or Bent u op zoek naar een koopwoning of een huurwoning? = Beide / Geen voorkeur



Q24 Indien u zou huren, wat voor een huurprijs zou u bereid zijn maximaal (maandelijks) te betalen, exclusief service- en stookkosten?

€ (1) _____

Ik heb hier nog niet over nagedacht. (2)

Display This Question:

If De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = ja

Q25 Bij het zoeken naar een woning is het niet altijd mogelijk dat alle wensen worden vervuld. In het algemeen spelen de ligging, de prijs en de woning zelf een belangrijke rol. Kunt u aangeven wat voor u het belangrijkste is bij de keuze voor uw toekomstige woning?

De ligging (1)

De prijs (2)

De grootte van de woning (3)

Anders, namelijk... (4) _____

Display This Question:

If De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = ja

Q26 Wat is daarna het belangrijkste?

- De ligging (1)
- De prijs (2)
- De grootte van de woning (3)
- Anders, namelijk... (4) _____

Display This Question:

If De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = ja

Q27 Heeft u het afgelopen half jaar iets ondernomen om aan een andere woning te komen?
Ook advertenties lezen telt al mee.

- Nee (1)
- Ja (2)

Display This Question:

If Heeft u het afgelopen half jaar iets ondernomen om aan een andere woning te komen? Ook advertenti... = Nee

Q44 Waarom heeft u het afgelopen half jaar niets ondernomen om aan een andere woning te komen? Meerdere antwoorden zijn mogelijk.

- Aanbod is waarschijnlijk te duur (1)
- Aanbod past waarschijnlijk niet bij mijn woonwensen (2)
- Omstandigheden in het huishouden (3)
- Omstandigheden in werk of studie (4)
- Mijn gezondheid (6)
- Mijn leeftijd (13)
- Ik kom waarschijnlijk niet aan een hypotheek (5)
- Ik voldoe waarschijnlijk niet aan inkomenseisen voor vrije sector huurwoningen (7)
- Er is geen aanbod in de regio waarin ik zoek (8)
- Anders, namelijk... (12) _____

Display This Question:

*If Heeft u het afgelopen half jaar iets ondernomen om aan een andere woning te komen? Ook advertenti...
= Ja*

Q28 Indien u zich heeft ingeschreven bij bepaalde instanties om een woning te vinden, waar heeft u dat dan gedaan? Meerdere antwoorden zijn mogelijk, tenzij de eerste optie is aangegeven.

- Ik heb mij (nog) nergens ingeschreven. (1)
- Een woningbouwcorporatie (2)
- Woningnet Gooi en Vechtstreek (3)
- Woningnet in een andere locatie (4)
- Een regionale woningbemiddelaar voor woningbouwcorporaties (5)
- Een organisatie voor studenten- of ouderenhuisvesting (6)
- Een makelaar of private huurder. (7)
- Anders, namelijk (8) _____

Display This Question:

If Heeft u het afgelopen half jaar iets ondernomen om aan een andere woning te komen? Ook advertenti...
= Ja

Q29 Waarom heeft u nog geen woning gevonden? Meerdere antwoorden zijn mogelijk.

- Aangeboden woning(en) te duur (1)
- Geen aanbod in plaats/buurt waar ik wil wonen (2)
- Kwaliteit woningen niet goed (3)
- Mijn inschrijfduur is niet lang genoeg (4)
- Nog geen woning(en) in het aanbod gezien of aangeboden gekregen (5)
- In afwachting verkoop huidige woning (6)
- Te weinig activiteiten ondernomen (7)
- Ik kom niet in aanmerking voor de woningen die ik wil, vanwege de gestelde eisen. (8)
- Ik kan geen geschikte hypotheek krijgen (9)
- Anderen bieden veel meer voor een huis dan ik bereid ben om te betalen. (10)
- Anders, namelijk... (11) _____

Display This Question:

*If Heeft u het afgelopen half jaar iets ondernomen om aan een andere woning te komen? Ook advertenti...
= Ja*

Q30 En wat is de belangrijkste reden?

- Aangeboden woning(en) te duur (1)
- Geen aanbod in plaats/buurt waar ik wil wonen (2)
- Kwaliteit woningen niet goed (3)
- Mijn inschrijfduur is niet lang genoeg (4)
- Nog geen woning(en) in het aanbod gezien of aangeboden gekregen (5)
- In afwachting verkoop huidige woning (6)
- Te weinig activiteiten ondernomen (7)
- Ik kom niet in aanmerking voor de woningen die ik wil, vanwege de gestelde eisen. (8)
- Ik kan geen geschikte hypotheek krijgen (9)
- Anderen bieden veel meer voor een huis dan ik bereid ben om te betalen. (10)
- Anders, namelijk... (11) _____

Display This Question:

If Bent u op zoek naar een koopwoning of een huurwoning? = Huurwoning

Or Bent u op zoek naar een koopwoning of een huurwoning? = Beide / Geen voorkeur

Or Bent u op zoek naar een koopwoning of een huurwoning? = Koopwoning

Or Bent u op zoek naar een koopwoning of een huurwoning? = Weet ik niet

Or De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = Nee

Q31 Bent u op de hoogte van de betaalbare vrije sector huurwoningen die Dudok Wonen aanbiedt?

Deze woningen worden aangeboden met een huurprijs tussen de €712 en €850 om middeninkomens een betere kans te bieden in de lokale woningmarkt. Middeninkomens zijn huishoudens met een jaarlijks bruto inkomen tot €47.073.

- Nee (1)
- Ja (2)

Display This Question:

If Bent u op de hoogte van de betaalbare vrije sector huurwoningen die Dudok Wonen aanbiedt? Deze wo... = Ja

Or Bent u op de hoogte van de betaalbare vrije sector huurwoningen die Dudok Wonen aanbiedt? Deze wo... = Nee

Q32 Overweegt u te reageren of heeft u al gereageerd op een van deze betaalbare vrije sector huurwoningen?

- Nee (1)
- Ja, ik ben aan het overwegen om te reageren op zo'n woning (2)
- Ja, ik heb al gereageerd (3)

Display This Question:

If Overweegt u te reageren of heeft u al gereageerd op een van deze betaalbare vrije sector huurwoni... = Nee

Or Overweegt u te reageren of heeft u al gereageerd op een van deze betaalbare vrije sector huurwoni... = Ja, ik ben aan het overwegen om te reageren op zo'n woning

Q33 Waarom heeft u (nog) niet gereageerd op een van deze betaalbare vrije sector huurwoningen? Meerdere antwoorden zijn mogelijk.

- Ik was nog niet op de hoogte van deze woningen voordat ik met deze enquête begon (7)
- Mijn inkomen is te laag om in aanmerking te komen voor deze woningen (1)
- Mijn inkomen is te hoog om in aanmerking te komen voor deze woningen (2)
- Het aanbod van deze woningen is te gering. (3)
- het aanbod past niet bij mijn woonwensen (4)
- Ik weet niet goed hoe ik moet reageren op advertenties voor een van deze woningen (5)
- Anders, namelijk... (6) _____

Display This Question:

If Bent u op zoek naar een koopwoning of een huurwoning? = Koopwoning

Or Bent u op zoek naar een koopwoning of een huurwoning? = Beide / Geen voorkeur

Or Bent u op zoek naar een koopwoning of een huurwoning? = Huurwoning

Or Bent u op zoek naar een koopwoning of een huurwoning? = Weet ik niet

Or De volgende vragen gaan over de eisen waaraan uw toekomstige woning moet voldoen en over uw toeko... = Nee

Q34 Bent u op de hoogte van de sociale koopwoningen die Dudok Wonen aanbiedt? Er zijn twee soorten koopregelingen (Kopen naar Wens en Koop Goedkoop) die koopwoningen voor huishoudens met een inkomen tot €47.073 bereikbaar maken.

Nee (1)

Ja (2)

Display This Question:

If Bent u op de hoogte van de sociale koopwoningen die Dudok Wonen aanbiedt? Er zijn twee soorten ko... = Nee

Q43 Met kopen naar wens betaalt u (afhankelijk van uw inkomen) minimaal 50% van de koopsom. Hiermee worden hypotheeklen ook voor lagere inkomens bereikbaar, omdat er een minder groot deel van de koopsom hoeft te worden gefinancierd met een hypotheek. Het deel dat u niet zelf heeft gekocht betaalt u wanneer u uiteindelijk de woning weer verkoopt.

Koop goedkoop is een regeling waarmee de woning kan worden gekocht, en de grond waar de woning op staat wordt gehuurd. De huur voor de grond is in het begin lager, waardoor de lasten in de eerste jaren van het hebben van de woning laag zijn.

Display This Question:

If Bent u op de hoogte van de sociale koopwoningen die Dudok Wonen aanbiedt? Er zijn twee soorten ko... = Ja

Or Bent u op de hoogte van de sociale koopwoningen die Dudok Wonen aanbiedt? Er zijn twee soorten ko... = Nee

Q35

Bent u geïnteresseerd in zo'n sociale koopwoning?

- Nee (1)
- Ja (2)
- Ik heb te weinig kennis over deze regelingen om hier geïnteresseerd in te zijn. (3)

Display This Question:

If Bent u geïnteresseerd in zo'n sociale koopwoning? = Ja

Q36 Waarom bent u nog niet verhuisd naar of heeft u nog niet gereageerd op een sociale koopwoning die op deze manier wordt aangeboden? Meerdere antwoorden zijn mogelijk.

- Ik wist nog niet van deze woningen af voordat ik aan deze enquête begon (1)
- Mijn inkomen is te laag om in aanmerking te komen voor een van deze woningen (8)
- Mijn inkomen is te hoog om in aanmerking te komen voor een van deze woningen (2)
- Het aanbod van deze woningen is te gering. (3)
- Het aanbod van deze woningen sluit niet goed aan bij mijn woonwensen. (4)
- Ik weet niet goed hoe ik gebruik moet reageren op een van deze woningen (5)
- Anders, namelijk... (6) _____

End of Block: Block 4 - Residential mobility II

Start of Block: Blok 5: einde enquête



Q37

U bent bijna klaar! We hebben nog een paar laatste vragen voor u. Wilt u geïnformeerd worden over de resultaten van dit onderzoek of kans maken een VVV bon ter waarde van € 20? Vult u dan hieronder uw e-mailadres in. Wij kunnen uw e-mailadres niet aan uw resultaten koppelen, de enquête blijft volledig anoniem.

Q38 Wilt u op de hoogte worden gehouden van de resultaten van deze enquête?

Nee (1)

Ja (2)

Q39 Wilt u kans maken op een VVV bon ter waarde van € 20? (Let op: u maakt alleen kans hierop als u uw e-mailadres hierboven invult)

Nee (1)

Ja (2)

Q61 Heeft u nog opmerkingen? Laat het ons weten!

Q45 Indien u verder nog vragen heeft over deze enquête, dan kunt u contact opnemen met Sjoerd Blok via s.blok@dudokwonen.nl

End of Block: Blok 5: einde enquête

Appendix B: Structured web- survey: number of cases per block and routing consequences

The table provided in this appendix gives some insight in the number of cases per block. The overall N column shows how many overall respondents have answered the questions in that particular block. The N Middle or higher income households column shows how many middle or higher income households have responded to questions in that particular block.

Table 1: cases per block			
	Overall N	N Middle or higher income households (% of overall)	Notes
N opened survey	806	139 (17,2%)	
Block 1: Socio-demographic			
N start of block (Q1)	804		The question regarding the respondents income levels appear to have had a large effect on the N.
Identification middle income households		139	
Block 2: place utility, satisfaction with dwelling and neighbourhood			
N start of block (Q8)	742	130 (17,5%)	none
N end of block (Q15)	707	124 (17,5%)	
Block 3: Residential Mobility I			
N start of block (Q16)	705*	124 (17,5%)	*Households that stated they did not want to move were asked why, before the survey ended for these respondents.
Block 4: Residential Mobility II			
N start of block (Q19)	385	71 (18,4%)	*In this block, Q20 was particularly important for the routing in the questionnaire. Respondents that indicated 'no' were forwarded to question 31 **Q34 is not that final question of Block 4, but question Q35 and Q36 were displayed based on the answer given here.
N Q20 (routing 'checkpoint')*	385	71 (18,4%)	
N Q31 (routing 'checkpoint')	375	70 (18,7%)	
N end of block (Q34)**	366	69 (18,9%)	
Block 5: einde enquête			
N end of block (Q39)	625*	109 (17,4%)	*Respondents were not obliged to fill in the questions in this block.
Overall completion rate:	80,0%**	80,6%	**In total, 645 respondents have seen the 'end of survey' page.

Appendix C: Identifying the middle income households in the survey results

In order to identify the middle or higher income target group, questions Q5, Q6 and Q7 have been introduced into the survey. A translation of these questions can be found in table 1 below. The original questions can be found in appendix A, where all survey questions can be found.

Income	Rent allowance	1 – No 2 – yes 3 – I don't know	Q5 Do you receive rent allowance?	All respondents
	Gross yearly income	1 – higher 2 – lower 3 – I don't know	Q6 Is your gross yearly income higher or lower than €36.798? This income level decides if you're eligible to move to another regulated rental dwelling in the future.	Respondents which have selected options 1 or 3 in Q5.
	Net monthly income	1 – less than €2400 2 – between €2400 and €2700 3 – more than €2700 4 – I don't know	Q7 What is your household's net monthly income level?	Respondents which have selected option 3 in Q6.

To find in which income group a respondent is to be placed, routing has been used. If respondents receive rent allowance (Q5), they are part of the primary target group, indicating that they are eligible to move to another regulated rental dwelling. These households are routed to Q8. The other households move on to Q6.

In Q6, households are asked if their income level is higher or lower than the maximum income level to be eligible to move to another regulated rental dwelling. The households that don't know their gross income level are routed to Q7, the others to Q8.

In Q7, an estimation of their net monthly income level is asked. Here, households indicating 'less than €2400' are put in the 'low income' group, and households stating they earn more than €2400 are placed in the 'middle or higher income' group.

Income dispersion:

Through this method, the following income dispersion has been identified:

Table 2: Income groups dispersion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primair	320	39,7	41,9	41,9
	Secundair	305	37,8	39,9	81,8
	Middle income	139	17,2	18,2	100,0
	Total	764	94,8	100,0	
Missing	System	42	5,2		
Total		806	100,0		

The middle income group is the group of households which should filter to the unregulated rental dwellings, with the affordable unregulated rental dwellings being the first step in this process. This group forms the population used for the remainder of the analysis.

These results have been used in table 5 of the report.

Appendix D: Recoded variables throughout the analysis

In this appendix, the recoded variables are substantiated.

Table 6: Do households want to move within the next two years? (N = 124) (p. 62) P. 134

Table 9: Why do the middle income households that know about the dwellings being offered not want to respond? (N = 26) (p. 62) P. 135

Table 12: Desired rent levels (N = 36) (p. 64) P. 137

Table 6: Do households want to move within the next two years? (N = 124)

**Table 1: Wilt u binnen twee jaar
verhuizen?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Beslist niet	50	36,0	40,3	40,3
	2 Eventueel wel/misschien	30	21,6	24,2	64,5
	3 Zou wel willen, kan niets vinden, zie geen mogelijkheden	31	22,3	25,0	89,5
	4 Beslist wel	11	7,9	8,9	98,4
	5 Heb al andere huisvesting gevonden	2	1,4	1,6	100,0
	Total	124	89,2	100,0	
Missing	System	15	10,8		
Total		139	100,0		

To compute the responses to this question into a more usable yes/no question, options 2,3,4 and 5 have been combined into one option.

Table 9: Why do the middle income households that know about the dwellings being offered not want to respond? (N = 26) (page 72)

The information in table 12 has been established using a crosstab analysis, to establish how the households that combining certain options. The original responses can be found in the table below.

Original response set:

Question: Waarom heeft u (nog) niet gereageerd op een van deze betaalbare vrije sector huurwoningen? Meerdere antwoorden zijn mogelijk

		Responses		Percent of Cases
		N	Percent	
Why havent they moved Huur ^a	Ik was nog niet op de hoogte van deze woningen voordat ik met deze enquête begon	21	27,3%	32,8%
	Mijn inkomen is te laag om in aanmerking te komen voor deze woningen	6	7,8%	9,4%
	Mijn inkomen is te hoog om in aanmerking te komen voor deze woningen	8	10,4%	12,5%
	Het aanbod van deze woningen is te gering.	7	9,1%	10,9%
	het aanbod past niet bij mijn woonwensen	13	16,9%	20,3%
	Ik weet niet goed hoe ik moet reageren op advertenties voor een van deze woningen	4	5,2%	6,3%
	Anders, namelijk...	18	23,4%	28,1%
	Total	77	100,0%	120,3%

Crosstab with the group highlighted in the table below:

Overweegt u te reageren	Total
of heeft u al gereageerd op een van deze betaalbare vrije sector huurwoningen?	

		Nee	Ja, ik ben aan het overwegen om te reageren op zo'n woning	Ja, ik heb al gereageerd	
Bent u op de hoogte van de betaalbare vrije sector huurwoningen die Dudok Wonen aanbiedt?	Nee	18	12	0	30
	Ja	26	9	5	40
Total		44	21	5	70

Result: 26 of the 40 households that know about the intermediate rental segment are not interested in the dwellings offered in the segment.

	Bent u op de hoogte van de betaalbare vrije sector huurwoningen die Dudok Wonen aanbiedt? X Waarom heeft u (nog) niet gereageerd op een van deze betaalbare vrije sector huurwoningen?		
	ja	nee	total
1 Ik was nog niet op de hoogte van deze woningen voordat ik met deze enquête begon	0	21	21
2 Mijn inkomen is te laag om in aanmerking te komen voor deze woningen	2	4	6
3 Mijn inkomen is te hoog om in aanmerking te komen voor deze woningen	5	3	8
4 Het aanbod van deze woningen is te gering.	5	2	7
5 Het aanbod past niet bij mijn woonwensen	10	3	13
6 Ik weet niet goed hoe ik moet reageren op advertenties voor een van deze woningen	1	3	4
7 Anders, namelijk...	17	1	18

Table 12 has been derived from these results. First of all, only the responses in the 'ja' column are interesting. Options 2 and 3 have been combined into 'my income level isn't suitable to be eligible to rent a dwelling in the intermediate rental segment', and options 4 and 5 have been combined into 'The supply of the intermediate rental segment is lacking or does not suit my housing preferences'.

Table 12: Desired rent levels (N = 36) page 71

The complete set of answers that have resulted in table 9, found on page 71. To filter any unreasonable entries (for example respondents that have filled in €6000, or €0), the variable has been recoded to only include rental prices between 0 and 711 euros.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	550,00	2	1,4	5,6	5,6
	600,00	3	2,2	8,3	13,9
	650,00	4	2,9	11,1	25,0
	690,00	1	0,7	2,8	27,8
	700,00	7	5,0	19,4	47,2
	710,00	2	1,4	5,6	52,8
	750,00	3	2,2	8,3	61,1
	800,00	3	2,2	8,3	69,4
	850,00	6	4,3	16,7	86,1
	900,00	2	1,4	5,6	91,7
	1000,00	2	1,4	5,6	97,2
	1100,00	1	0,7	2,8	100,0
	Total	36	25,9	100,0	
	Missing	System	103	74,1	
Total		139	100,0		

Appendix E: Further substantiation of the T-tests

In this appendix, the steps taken to conduct the t-tests that have led to the results presented in tables 13, 14, 16, 17, 18, 19 and 20 are explained per table. This appendix also reveals more detailed information of the T-test results.

T-test for table 13: T-test results: desire to move vs. dwelling valuation amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen. (page 74)

First, the variables for neighbourhood valuation, dwelling valuation and desire to move have been checked for skewness and kurtosis, in order to find out if bootstrapping was needed. The null hypothesis for this T-test was that there is no difference between valuation of the dwelling and neighbourhood amongst households that want to move and households that don't want to move. Bootstrapping was used.

Group Statistics						
					Bootstrap ^a	
					BCa 95% Confidence Interval	
Valuation of dwelling						
Verhuisgeneigd	Statistic	Bootstrap ^a	Bias	Std. Error	Lower	Upper
Ja	N	74				
	Mean	6,6081	0,0000	0,2042	6,1946	7,0000
	Std. Deviation	1,80424	-0,01644	0,15422	1,50119	2,06177
	Std. Error Mean	0,20974				
Nee	N	49				
	Mean	7,7959	-0,0033	0,2176	7,3062	8,2222
	Std. Deviation	1,54083	0,04450	0,31125	1,04088	2,05005
	Std. Error Mean	0,22012				
Valuation of neighbourhood						
Ja	N	74				
	Mean	7,05	0,00	0,17	6,71	7,40
	Std. Deviation	1,451	-0,017	0,134	1,212	1,666
	Std. Error Mean	0,169				
Nee	N	49				
	Mean	7,86	0,00	0,15	7,56	8,14
	Std. Deviation	1,041	-0,015	0,085	0,893	1,161

	Std. Error Mean	0,149				
--	--------------------	-------	--	--	--	--

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Valuation of dwelling									
Equal variances assumed	2,874	0,093	- 3,783	121	0,000	-1,18781	0,31395	- 1,80937	- 0,56625
Equal variances not assumed			- 3,907	113,311	0,000	-1,18781	0,30404	- 1,79016	- 0,58546
Valuation of neighbourhood									
Equal variances assumed	2,750	0,100	- 3,344	121	0,001	-0,803	0,240	-1,279	-0,328
Equal variances not assumed			- 3,571	120,179	0,001	-0,803	0,225	-1,248	-0,358

Bootstrap for Independent Samples Test							
	Mean difference	Bootstrap ^a		Sig. (2- tailed)	95% Confidence Interval of the Difference		
		Bias	Std. Error		Lower	Upper	
Valuation of dwelling							
Equal variances assumed	-1,18781	0,093	-3,783	0,000	-1,80937	-0,56625	
Equal variances not assumed	-1,18781		-3,907	0,000	-1,79016	-0,58546	
Valuation of neighbourhood							
Equal variances assumed	-0,803	0,100	-3,344	0,001	-1,279	-0,328	

Equal variances not assumed	-0,803		-3,571	0,001	-1,248	-0,358
-----------------------------	--------	--	--------	-------	--------	--------

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

The independent samples T-Test shows that there is a significant difference between how the households that want to move, and the households that do not want to move value their dwelling and neighbourhood.

The households that want to move rate their dwelling with an average of 6,6081, with 95% CI lower 6,19 and upper 7,0000.

And rate their neighbourhood with an average of 7,05 (95% CI lower 6,71 and upper 7,40).

The households that do not want to move rate their dwelling with a 7,7959 on average, with a 95%CI lower 7,3062 and upper 8,2222.

And rate their neighbourhood with an average of 7,86, with a 95% CI 7,56 and 8,14. These are the results that are shown in table 13.

Table 14: T-test results: Dwelling size versus desire to move amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen

First, the variable for Dwelling Size was checked for skewness and kurtosis, in order to find out if bootstrapping was needed.

The dwelling size variable is an ordinal value with categories featuring equal distances:

Dwelling size					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	< 40	4	2,9	4,3	4,3
	40 - 60	24	17,3	25,8	30,1
	60-80	37	26,6	39,8	69,9
	> 80	28	20,1	30,1	100,0
	Total	93	66,9	100,0	
Missing	System	46	33,1		
Total	139	100,0			

The null hypothesis here is that there is no difference between dwelling size of households that want to move and households that do not want to move.

Group Statistics	
	Bootstrap ^a

					BCa 95% Confidence Interval	
Dwelling size						
Verhuisgeneigd	Statistic	Bootstrap ^a	Bias	Std. Error	Lower	Upper
Ja	N	56				
	Mean	2,7143	-0,0010	0,1166	2,4889	2,9402
	Std. Deviation	0,86790	-0,01014	0,06645	0,75005	0,96984
	Std. Error Mean	0,11598				
Nee	N	34				
	Mean	3,4118	0,0023	0,1124	3,1808	3,6341
	Std. Deviation	0,65679	0,01383	0,06928	0,52757	0,75126
	Std. Error Mean	0,11264				

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Independent Samples Test									
			t-test for Equality of Means					95% Confidence Interval of the Difference	
	Levene's Test for Equality of Variances				Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
	F	Sig.	t	df					
Dwelling size									
Equal variances assumed	2,640	0,108	-4,034	88	0,000	-0,69748	0,17292	-1,04111	0,35385
Equal variances not assumed			-4,314	83,650	0,000	-0,69748	0,16167	-1,01900	0,37595

Bootstrap for Independent Samples Test						
			Bootstrap ^a		95% Confidence Interval of the Difference	
	Mean difference	Bias	Std. Error	Sig. (2-tailed)	Lower	Upper
Dwelling size						

Equal variances assumed	-0,69748	-0,00335	0,16144	0,000	-1,02365	-0,38656
Equal variances not assumed	-0,69748	-0,00335	0,16144	0,000	-1,02365	-0,38656

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

This T-test shows that households looking to move generally live in smaller dwellings than the households that do not want to move.

For the households that want to move, the mean here is 2,7143, which is in the 60 to 80 m2 mark. 95% CI: lower 2,4889 upper 2,9402.

For the households that do not want to move, the mean is 3,4118, which is in the >80 m2 mark. 95% CI: lower 3,1808, upper 3,6341.

Table 16: T-test results: Current rental price versus desire to move amongst middle income households residing in regulated rental dwellings offered by Dudok Wonen.

Do households that want to move pay more for their housing than households that do not want to move? In the survey, households have been asked how much money they spend on rent every month. This is the amount the households pay without additional service costs.

To filter any unreasonable entries (for example €6000), this variable has been recoded to only include rental prices between 0 and 711 euros. Again, the variable has first been used to check for skewness and kurtosis. The null hypothesis here is that there is no difference between the rent levels of households that want to move and households that do not want to move.

Group Statistics						
					Bootstrap ^a	
					BCa 95% Confidence Interval	
Rental prices						
Verhuigeneigd	Statistic	Bootstrap ^a	Bias	Std. Error	Lower	Upper
Ja	N	46				
	Mean	598,6259	0,3548	13,3312	570,5399	626,5790
	Std. Deviation	94,11970	-2,13335	14,12852	65,71670	115,05865
	Std. Error Mean	13,87719				
Nee	N	31				
	Mean	589,5019	-0,3461	14,8571	559,2977	619,0810
	Std. Deviation	82,90032	-1,71613	8,34868	67,93674	93,89550

	Std. Error Mean	14,88934				
--	--------------------	----------	--	--	--	--

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Rental price									
Equal variances assumed	0,061	0,805	0,437	75	0,663	9,12393	20,86716	- 32,44559	50,69346
Equal variances not assumed			0,448	69,696	0,655	9,12393	20,35359	- 31,47314	49,72101

Bootstrap for Independent Samples Test							
	Mean difference	Bootstrap ^a			95% Confidence Interval of the Difference		
		Bias	Std. Error	Sig. (2- tailed)	Lower	Upper	
Rental price							
Equal variances assumed	9,12393	0,70088	19,95277	0,653	- 32,06097	50,99356	
Equal variances not assumed	9,12393	0,70088	19,95277	0,650	- 32,06097	50,99356	

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Here, the H0 has not been falsified. There is no significant differences in the price households that want to move and households that do not want to move pay for their dwelling.

Households that want to move spend 598.6259 euros on rent (95% CI lower 570,5399; upper 626,5790).

Households that do not want to move spend 589,5019 euros on rent (95% CI lower 559,2977; upper 619,0810).

Table 17: T-test results: perceived rent levels: households that want to move versus households that do not want to move

How do households that want to move, and households that do not want to move perceive their rental levels?

The null hypothesis here is that there is no difference between what households that want to move and households that do not want to move think about their rental price.

Group Statistics						
					Bootstrap ^a	
					BCa 95% Confidence Interval	
Rental price valuation						
Verhuigeneigd	Statistic	Bootstrap ^a	Bias	Std. Error	Lower	Upper
Ja	N	67				
	Mean	1,5224	0,0014	0,0615	1,4058	1,6418
	Std. Deviation	0,50327	-0,00389	0,00640	0,48178	0,50435
	Std. Error Mean	0,06148				
Nee	N	43				
	Mean	1,4419	0,0017	0,0753	1,2973	1,5870
	Std. Deviation	0,50249	-0,00564	0,01198	0,46227	0,50709
	Std. Error Mean	0,07663				

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Independent Samples Test									
		t-test for Equality of Means							
Levene's Test for Equality of Variances								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Rental price valuation									

Equal variances assumed	0,530	0,468	0,819	108	0,414	0,08053	0,09828	-0,11428	0,27533
Equal variances not assumed			0,820	89,801	0,415	0,08053	0,09825	-0,11466	0,27572

Bootstrap for Independent Samples Test						
	Mean difference	Bootstrap ^a		Sig. (2-tailed)	95% Confidence Interval of the Difference	
		Bias	Std. Error		Lower	Upper
Rental price valuation						
Equal variances assumed	0,08053	-0,00034	0,09655	-0,10768	0,08053	0,26753
Equal variances not assumed	0,08053	-0,00034	0,09655	-0,10768	0,08053	0,26753

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

There is no difference in how the rental price is perceived between households that want to move and households that do not want to move.

For T-tests 18, 19, and 20, the dwelling size variable has been recoded into two groups.

The dwelling size variable has been presented in this appendix in the section regarding table 14. It has been recoded into the following variable:

Dwelling size recoded					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 60 m2	28	20,1	30,1	30,1
	60m2 or more	65	46,8	69,9	100,0
	Total	93	66,9	100,0	
Missing	System	46	33,1		
Total		139	100,0		

Table 18: T-test results: dwelling size versus how households have rated their dwelling (page 78)

The variable representing the rating of dwellings has already been checked for skewness and kurtosis when preparing the T-test for table 13. The null hypothesis here is that households living in dwellings with different dwelling sizes do not rate their housing situation differently.

Group Statistics						
					Bootstrap ^a	
					BCa 95% Confidence Interval	
Valuation of dwelling						
Dwelling size recoded	Statistic	Bootstrap ^a	Bias	Std. Error	Lower	Upper
less than 60 m2	N	28				
	Mean	6,39	,00	,41	5,56	7,15
	Std. Deviation	2,149	-,049	,258	1,569	2,587
	Std. Error Mean	,406				
60m2 or more	N	65				
	Mean	7,42	-,01	,23	6,96	7,84
	Std. Deviation	1,836	-,024	,219	1,380	2,248
	Std. Error Mean	,228				

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Independent Samples Test										
		t-test for Equality of Means								
		Levene's Test for Equality of Variances						95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Valuation of dwelling										
Equal variances assumed		1,680	,198	-2,339	91	,022	-1,023	,437	-1,891	-,154
Equal variances not assumed				-2,196	44,786	,033	-1,023	,466	-1,960	-,085

Bootstrap for Independent Samples Test						
		Bootstrap ^a			95% Confidence Interval of the Difference	
	Mean difference	Bias	Std. Error	Sig. (2-tailed)	Lower	Upper
Valuation of dwelling						
Equal variances assumed	-1,023	,004	,472	,030	-1,956	-,123
Equal variances not assumed	-1,023	,004	,472	,033	-1,956	-,123

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

A significant difference has been found between how households in larger and smaller dwellings rate their dwelling. Households in smaller dwellings rate their dwelling significantly lower than households in larger dwellings.

Tab 19: T-tests results: dwelling size versus basic rent level (page 79)

For this T-test, the variable presenting the rent levels of the respondents' current housing situation has been used. The null hypothesis here is that there is no significant difference between the rental prices of larger and smaller dwellings.

Group Statistics						
		Bootstrap ^a				
		BCa 95% Confidence Interval				
Rental price						
Dwelling size recoded	Statistic	Bootstrap ^a	Bias	Std. Error	Lower	Upper
less than 60 m2	N	18				
	Mean	585,3394	-,1773	27,2435	530,2242	637,0955
	Std. Deviation	116,73611	-5,53098	20,52873	67,42900	147,44284
	Std. Error Mean	27,51496				
60m2 or more	N	37				
	Mean	601,9830	-,6723	13,6524	573,6196	626,8907
	Std. Deviation	83,39058	-2,45780	13,79884	55,92953	108,30081
	Std. Error Mean	13,70933				

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Valuation of dwelling									
Equal variances assumed	2,906	,094	-,607	53	,546	-16,64353	27,40523	-71,61146	38,32440
Equal variances not assumed			-,541	25,739	,593	-16,64353	30,74116	-79,86406	46,57701

Bootstrap for Independent Samples Test							
	Mean difference	Bootstrap ^a		Sig. (2-tailed)	95% Confidence Interval of the Difference		
		Bias	Std. Error		Lower	Upper	
Valuation of dwelling							
Equal variances assumed	-16,64353	,49499	30,24969	,597	-77,08779	39,54514	
Equal variances not assumed	-16,64353	,49499	30,24969	,601	-77,08779	39,54514	

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

There is no significant difference between the rent levels of smaller and larger dwellings.

Table 20: T-test results: dwelling size versus how households have rated their rental price (page 79)

For this, the variable priceval2 has been used, which is a clustered version of PriceVal, in which households stated that what they think about their rental price. The null hypothesis is that households in smaller dwellings and households in larger dwelling rate their rental price equally.

Group Statistics				
Valuation of rental price				
Dwelling size recoded	N	Mean	Std. deviation	Std. Error
less than 60 m2	23	1,5217	,51075	,10650
60m2 or more	57	1,4737	,50375	,06672

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Valuation of dwelling									
Equal variances assumed	,005	,944	,385	78	,702	,04805	,12493	-,20066	,29677
Equal variances not assumed			,382	40,225	,704	,04805	,12567	-,20590	,30201

There is no significant difference in how households in smaller dwellings and households in larger dwelling rate their rental price.

Appendix F Analytical framework for the semi-structured Interviews

In this document the conceptual framework for the analysis of interview summaries with filterers and starters is introduced. The analytical framework has been created to help analyse the data gathered during the semi-structured interviews.

The analytical framework is based on the research questions the semi-structured interviews should answer, along with the conceptual model in which these are portrayed. The research questions interviews with filterers and starters should answer are the following;

- a. To what extent do these dwellings supply households in the regulated rental segment with triggers to move?
- b. To what extent does the price-quality ratio of these dwellings contribute to initiating filtering processes in the region?**
- c. What has motivated households to move to these dwellings?**
- d. Is the price quality ratio the decisive reason for middle income households residing in regulated rental dwellings to move?
- e. Do households assign a greater place utility to these dwellings compared to their former dwellings?**
- f. Are households indeed looking for a rental dwelling, or would they rather have a dwelling in the owner occupied market?**

The interview guides for both the interviews with filtering and starting households are somewhat similar. This is justified, as the conceptual models for the interviews are similar as well. The largest difference between the two groups is the starting point.

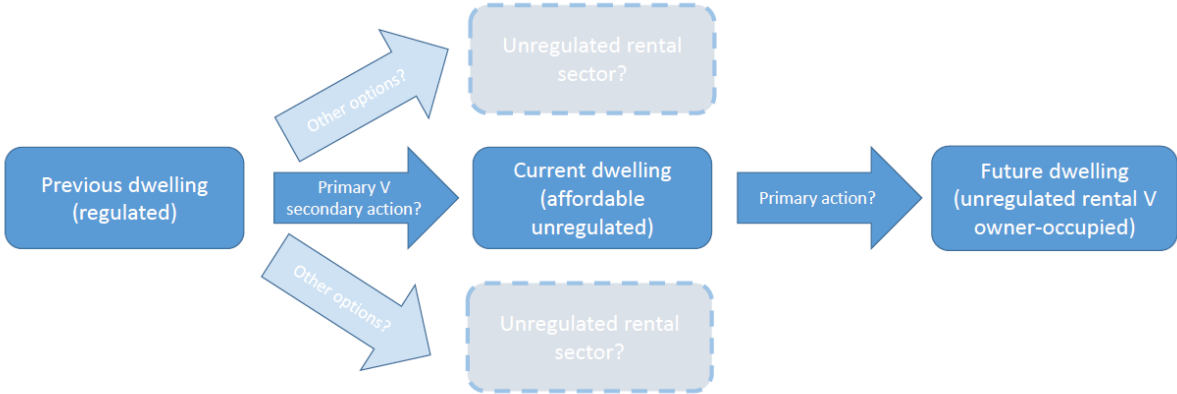


Figure 1: the conceptual model for the semi-structured interviews with filterers.

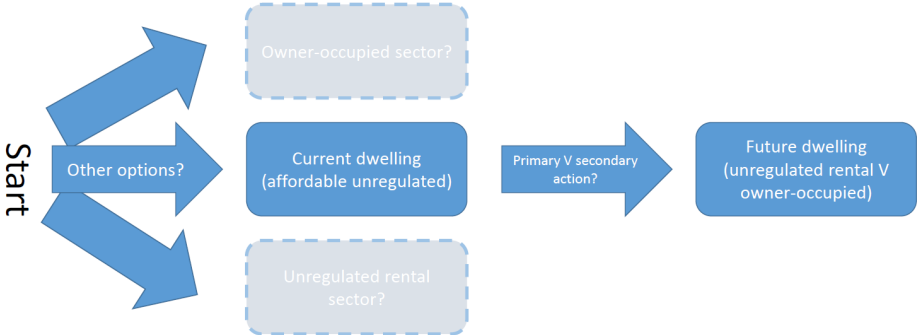


Figure 2: the conceptual model for the semi-structured interviews with starters.

The interview guides for the interviews with filterers and starters have been drawn up in four blocks. The first block is used to establish what kind of household is participating in the interview, and to establish whether if their former housing situation was independent (indicating filtering households) or not (indicating starting households).

Block 2.1 concerns the household's previous housing situation, and how they valued that housing situation. This information is used to assess what place utility households assigned to their former dwelling or housing situation (as can be seen in figure 3 below).

The respondents are asked to describe their former dwelling/housing situation. Here characteristics like (dwelling) type, size, number of rooms, floors and outdoor space are retrieved. Respondents are also asked how long they've lived there, after which they're asked to evaluate the former situation by giving it a ranking from 1 to 10, in which 10 is their ideal housing situation, and 1 is their least favourable housing situation. This ranking is later used to compare their former dwelling to their current dwelling. Especially important here is to ask what factors have led to them giving this grade to their former dwelling. The same is then done for their former neighbourhood, but only if they've moved from one neighbourhood to another.

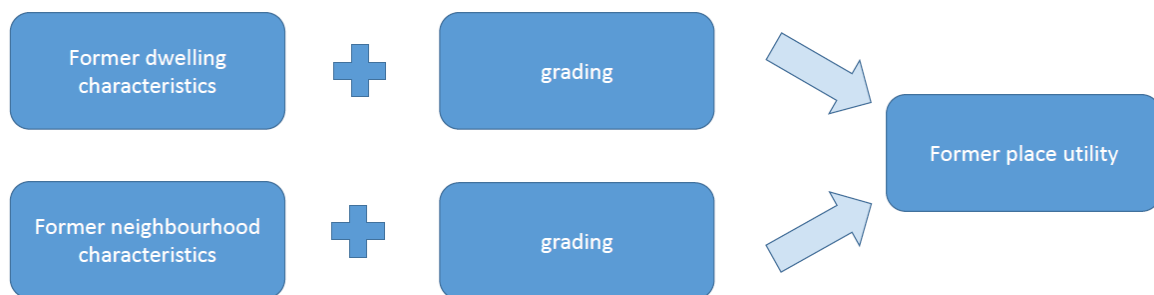


Figure 3: how the former place utility is established during the semi-structured interviews

The retrieved information can then be used to assess what sense of place utility the responding household assigns to their former dwelling.

In block 2.2, households are asked why they moved and if they had to move urgently. This block is used to assess whether if the households have taken primary or secondary action when moving to their current dwelling. This is illustrated in figure 4 below.

The respondents are asked why they moved from their former housing situation to their current housing situation. The questions asked are aimed at uncovering whether if the households had to move, or merely felt the need to improve their housing situation. Here, urgency is first assessed by asking the respondent if he or she had to move at that moment, before asking them if they would have been able to hold off moving for a while.



Figure 4: how the type of action taken by households is established during the semi-structured interviews

The retrieved information can be used to assess whether if the responding household has taken primary or secondary action at the time of moving. This distinction is important, as Dudok Wonen has envisioned that filtering households will take primary action when moving from the regulated segment to the discounted unregulated rental dwellings (due to the increase in price/quality), and that starting households find the dwellings adequate (as they are offered as a ‘real’ opportunity for housing).

Block 2.3 is designed to assess how the constraints and limitations encountered on the housing market have influenced the household’s final dwelling choice. Respondents are asked what kind of dwelling they were looking for at the time they wanted to move. They’re asked to describe the characteristics they wanted their dwelling to have, and what the most important selection criteria were. Afterwards, they’re asked what kind of constraints and limitations they experienced while looking for housing options. This information leads to information regarding the limitations and constraints households have experiences in the housing market. This is illustrated in figure 5 below.

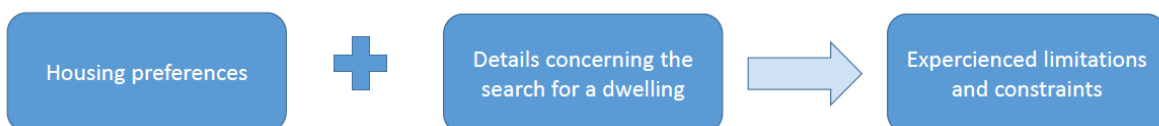


Figure 5: how the experienced limitations and constraints are established in the semi-structured interview.

After this, the respondents are asked if and how these constraints and limitations have influenced their dwelling choice. The respondents are asked if they have made any concessions, and what aspects they’re missing in their current dwelling. Constraints and limitations greatly impact the options households have in the regional housing market. The lack of available options can lead to substitution behaviour.

In block 3.1 the place utility for the current housing situation is sought after. This is done in a similar fashion as it was for the former housing situation. The current dwelling of the responding household is described and evaluated, again with a grade between 1 and 10. The same is done for the neighbourhood. This leads to an approximation of the place utility of the current housing situation.

In block 3.2 the two dwellings and the relative place utility are compared. The goal here is to find out whether if the respondent has improved the housing situation for his or her household with the moving process, in terms of price and quality. This is illustrated in figure 6 below.

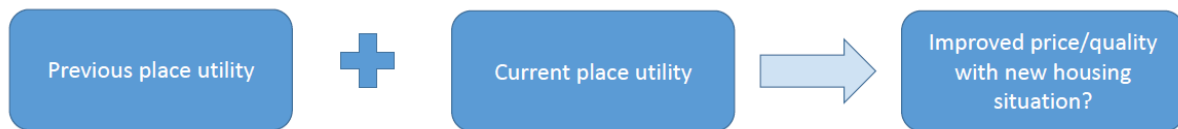


Figure 6: how the established senses of place utility should lead to information regarding improved housing situations.

In block 4.1 households are asked if and why they're (not) planning on moving, and in what time frame they would (eventually) want to move. The goal here is to assess whether if the household would ever want to consider moving to another dwelling. This information is important to retrieve, as Dudok Wonen wants their households to be independent in the housing market, and eventually wants households to live without any form of support.

In block 4.2 the households are asked if there are any changes in preferences since they moved into their current dwelling. the goal here is to find out whether if they regard their choice for their current dwelling to be a substitute of their actual preferences. If this is the case, they should eventually be triggered to continue their housing career further into the unregulated rental segment.

Block 4.3 continues on the topic of having a desire to move. The respondents are asked if they are actively looking for dwellings at the moment, and what they are doing to find the right dwelling, if they are. Finally, they're asked why they haven't moved yet, if they are actively looking for a dwelling. The answers respondents give here can give insight in how the scarcities in the regional housing market are experienced at the moment.

Appendix G: Interview Guides: Filtering and starting households

In this appendix, the interview guides used to conduct the interviews with starting and filtering households can be seen. As the interview guides for starting and filtering households are very similar, only one interview guide is presented in this appendix. Alterations for interviews with starting households are displayed in red text.

Beste interviewer,

Doorstromers:

U leest op dit moment de interview guide voor interviews met huishoudens die vanuit een sociale huurwoning zijn doorgestroomd naar een betaalbare vrije sector (x1) woning. In deze guide staat per blok beschreven wat voor informatie er uit het gesprek met het huishouden moet worden gehaald. De vragen/thema's die moeten worden behandeld staan in een groter lettertype. De schuingedrukte tekst is alleen interessant voor de persoon die het interview af neemt.

Starters:

U leest op dit moment de interview guide voor interviews met startende huishoudens, die zijn gaan wonen in een betaalbare vrije sector (x1) woning. In deze guide staat per blok beschreven wat voor informatie er uit het gesprek met het huishouden moet worden gehaald. De vragen/thema's die moeten worden behandeld staan in een groter lettertype. De schuingedrukte tekst is alleen interessant voor de persoon die het interview af neemt.

Niet elk huishouden hoeft elke vraag te beantwoorden. Bij een aantal vragen is er sprake van routing, wat inhoudt dat een bepaalde vraag wel of niet hoeft te worden gesteld als het huishouden eerder een bepaald type antwoord heeft gegeven. Om de routing overzichtelijk te maken is er een apart blad wat kan worden gebruikt om bepaalde antwoorden op te noteren. Tenzij het interview niet mag worden opgenomen is het niet nodig om meer notities te maken dan in de tabel staat.

Introductie voor het huishouden dat wordt geïnterviewd

Stel jezelf voor, wie ben je, wat doe je?

Het doel van het onderzoek:

Dudok Wonen wil het graag mogelijk maken dat mensen zelf een stap zetten naar een volgende huur- of koopwoning. Omdat ze zien dat het prijsverschil tussen de sociale huur en de vrije markt heel groot is, bieden ze naast sociale huur ook betaalbare koop- en vrije sector huurwoningen aan. Deze koop- en vrije huur sector woningen zijn door speciale regelingen betaalbaar voor mensen met een middeninkomen (jaarinkomen tot €47.000).

U bent gevraagd om deel te nemen aan een interview, omdat u in een woning binnen dit zogenaamde 'tussenaanbod' woont. We zijn voornamelijk geïnteresseerd in

- Wat u of uw huishouden heeft bewogen om te verhuizen naar uw huidige woning,
- Welke belemmeringen of restricties u heeft ervaren op de woningmarkt, tijdens uw zoektocht naar een geschikte woning,
- Hoe u uw huidige woonsituatie waardeert ten opzichte van uw vorige woonsituatie, en in hoeverre uw huidige woonsituatie past bij uw ideale woonsituatie,
- En of u al verder kijkt naar een andere woning.

Met de resultaten van dit interview kunnen we het aanbod verbeteren.

Voordat we verder gaan, zou ik graag willen weten of u er problemen mee heeft als ik dit gesprek opneem, is dat het geval? Het interview wordt anoniem verwerkt, de geluidsopname wordt verwijderd nadat ik het interview samen heb kunnen vatten.

Zet recorder aan (als het mag)

Heeft u op dit moment al wat vragen?

Blok 1: personalia

Allereerst even wat vragen die moeten worden beantwoord om een beeld te geven van het huishouden dat wordt geïnterviewd.

1. Wat is uw leeftijd?

2. Uit hoeveel personen bestaat uw huishouden?

3. En wat voor samenstelling heeft het huishouden?

Denk hier aan hoeveel (thuiswonende) kinderen, hoeveel volwassenen.

4. Doorstromers: Klopt het dat uw vorige woning een sociale huurwoning was?

Starters: Klopt het dat dit uw eerste zelfstandige woning is?

Vraag vier is alleen ter confirmatie, hoeft niet te worden gesteld als dit telefonisch al is gedaan

Blok 2: Vorige woonsituatie & verhuisredenen en -proces

In dit blok wordt gevraagd naar de vorige woning van het huishouden, en waarom ze zijn verhuisd. Het doel is om een beeld te kunnen schetsen van hun vorige woonsituatie en hoe tevreden ze daarmee waren, om vervolgens te achterhalen of het huishouden is verhuisd omdat ze ontevreden waren met hun vorige woning, of of dat komt door andere redenen.

2.1 De vorige woning

5. Wat kunt u mij vertellen over uw vorige woning?

Onderwerpen: (Afvinken als genoemd, anders specifiek naar vragen)

- Woningtype
- Woninggrootte: _____
- Aantal kamers: _____
- Verdiepingen

Weet u nog/ bent u bereid om te vertellen hoeveel huur u maandelijks betaalde voor uw vorige woning?

5.5 Hoe lang heeft u gewoond in uw vorige woning?

6. Als u een rapportcijfer moest geven aan uw vorige woonsituatie, wat zou dat cijfer dan zijn?

Wat is de grootste factor die dat cijfer beïnvloedt?

7. Bent u naar een andere buurt verhuisd toen u naar deze woning verhuisde?
Als 'nee' -> Waarom niet?

Routing: als ze niet naar een andere buurt zijn verhuisd kunnen de volgende vragen worden overgeslagen.

8. Als u uw vorige buurt een rapportcijfer zou moeten geven (tussen 1-10), wat voor cijfer zou u uw vorige buurt dan geven?

9. Waar is dit cijfer voornamelijk op gebaseerd?

2.2 Verhuisredenen

De volgende vragen gaan over de verhuisredenen die het huishouden had toen ze hun vorige woning vertrokken;

- 1. Waarom zijn is het huishouden verhuisd? Lag dit aan de woning, de werksituatie, of de life cycle?*
- 2. Had het huishouden het gevoel dat ze echt **moesten** verhuizen? **Waarom** hadden ze dit gevoel?*

10. Weet u nog waarom u bent verhuisd naar uw huidige woning?

Hierbij kan ook worden teruggekoppeld naar het antwoord van vraag 6, (on)tevredenheid met de woning kan al genoemd zijn.

*Categorieën:
groter/kleiner wonen
mooier/beter wonen*

*life cycle positie veranderingen
Career cycle positie veranderingen*

Vraag om toelichting.

11. Had u toentertijd het gevoel dat u echt moest verhuizen? *Waarom (niet)?*
(urgentie)

Was 'niet verhuizen' ook toentertijd ook een optie voor u?

Vraag 12 kan worden overgeslagen als dit al aan bod is gekomen in vraag 11.

12. Waardoor had u het gevoel dat u echt moest verhuizen?

Het doel is hier om te achterhalen wat voor gebeurtenis de verhuistrigger was, om zo vast te stellen of het huishouden hiermee primaire of secundaire actie ondernemen.

2.3 Verhuisproces

Deze vragen gaan over het verhuisproces dat het huishouden heeft meegemaakt ten tijde van hun verhuizing. Het doel is om te achterhalen wat voor belemmeringen ze tegen kwamen tijdens dit

proces. Wat voor woning wilden zochten ze ongeveer? Was het moeilijk om een woning te vinden (die voldoet aan de eisen die het huishouden had)? Hebben ze concessies gedaan i.v.m. constraints?

13. Weet u nog naar wat voor woning u ongeveer zocht ten tijde van uw verhuizing?

Onderwerpen: (Afvinken als genoemd, anders specifiek naar vragen

- Woningtype
- Woninggrootte: _____
- Aantal kamers: _____
- Verdiepingen
- Huurprijs: _____

En vooral ook **waarom** ze die eigenschappen in een woning zochten.

14. Wat was voor u de belangrijkste woningeigenschap waar u op heeft geselecteerd toen u naar een woning zocht?

15. Hoe lang moest u ongeveer zoeken voor u deze woning vond?

Let op! Volgende vraag moet worden aangepast op antwoord; vanaf 1 jaar is 'lang'.

16. Hoe komt het (volgens u) dat u zo lang / zo kort heeft moeten zoeken?

*Hier kunnen veel verschillende antwoorden uit naar voren komen;
aanbod te duur en/of ongeschikt
geen aanbod op de juiste locatie
te weinig actie ondernomen, etc.*

17. LANG Heeft u het gevoel dat uw uiteindelijke keuze voor deze woning is beïnvloed door <eventuele eerder benoemde belemmeringen op de woningmarkt> ?

OF

17. KORT U heeft niet zo lang hoeven zoeken naar een geschikte woning, sluit de woning waar u nu in woont dan ook goed aan bij uw woonwensen?

Blok 3 – Huidige woonsituatie en woonpreferenties

3.1 Huidige woonsituatie

In blok 3.1 wordt ingegaan op de huidige woonsituatie en hoe tevreden het huishouden daarmee is, en in hoeverre de huidige woning aansluit bij de gewenste woonsituatie.

18. Wat kunt u mij vertellen over uw huidige woning?

- Woningtype
- Woninggrootte: _____
- Aantal kamers: _____
- Verdiepingen
- Buitenruimte

19. Betaalt u nu meer of minder voor uw huidige woonsituatie dan uw vorige?

hoeveel meer / minder dan ongeveer?

20. Als u een rapportcijfer moest geven aan uw huidige woonsituatie, welk cijfer zou dat dan zijn?

Waar is dit cijfer voornamelijk op gebaseerd?

Volgende twee vragen gaan over de buurt

21. Als u uw buurt een rapportcijfer zou moeten geven (tussen 1-10), wat voor cijfer zou u uw huidige buurt dan geven?

22. Waar is dit cijfer dan voornamelijk op gebaseerd?

3.2 vorige vs. Huidige woonsituatie

In 3.2 wordt de huidige woonsituatie van het huishouden vergeleken met hun vorige woonsituatie. Sluit hun huidige situatie beter aan op hun preferenties, of in andere woorden; is het huishouden vooruit gegaan op de verhuizing?

Pak de bladen met rapportcijfers/huurprijzen er bij. Pas de vragen aan waar nodig.

23. U gaf een hoger / lager rapportcijfer voor uw vorige woonsituatie dan uw huidige woonsituatie, waar is dit verschil op gebaseerd ?

24. U bent maandelijks wat meer / wat minder kwijt aan uw woonsituatie, wordt dit ook weerspiegeld in de kwaliteit van uw woning?

25. Vindt u dat het verschil in huurprijs gerechtvaardigd wordt door het verschil in kwaliteit van de woningen?

Waarom wel/niet?

26. U heeft eerder gezegd dat u naar een andere buurt bent verhuisd, was het verhuizen naar een andere buurt een specifiek doel?

Waarom?

27. U gaf uw huidige buurt een hoger/lager rapportcijfer, heeft dat dan ook daar mee te maken, of zijn er meer verschillen die uw rapportcijfer hebben beïnvloed?

De volgende vraag alleen stellen als de respondent verhuisd is naar een andere buurt.

28. Denkt u dat het verschil in prijs tussen uw vorige en huidige woonsituatie ook door de buurt beïnvloed wordt?

29. Vindt u dat uw huishouden er op vooruit gegaan is met deze verhuizing?
Waarom? *Antwoorden kunnen betrekking hebben op de buurt, woning, etc.*

30. Welke aspecten van uw vorige woonsituatie mist u in uw huidige woonsituatie?

Dit kan betrekking hebben op het huis, de buurt, of natuurlijk de prijs. Vraag hier naar door

Vraag 31 hoeft niet te worden gevraagd als de respondent eerder heeft gemeld dat deze woning precies in lijn is met zijn/haar woonwensen

31. Is uw huidige woning precies wat u zocht, of heeft u concessies moeten doen toen u uw woningkeuze maakte?

Ja -> op welke vlakken heeft de respondent toegegeven, en waarom?

*Nee -> is de huidige woonsituatie dan hun ideale woonsituatie? **Blok 4** – Verhuisplannen, woningkeuze en belemmeringen woningmarkt.*

In blok 4 wordt gevraagd naar eventuele verhuisplannen in de toekomst. Cruciaal (voor de visie van Dudok Wonen) is hier om te achterhalen of ze hun huidige woning zien als een soort tussenstap naar de volledig vrije markt.

4.1 Verhuisplannen

32. Bent u van plan om te verhuizen?

A: Nee -> vraag 2&3

A: Ja -> vraag 4, 5, 6.

33. Waarom bent u **niet** van plan om te verhuizen?

Het antwoord kan impliceren dat de respondent eigenlijk wel wilt verhuizen, maar geen opties ziet. als dit duidelijk wordt, doorvragen

34. Zou u op lange termijn uw 'wooncarrière' wel verder door willen zetten?

34.5 Naar wat voor woning zou u dan willen verhuizen?

Voor mensen die niet van plan zijn om te verhuizen is het interview hier klaar. Ga naar blok 5.

35. Op welke termijn zou u dan willen verhuizen?

36. Heeft u het idee dat u *moet* verhuizen? *Waarom (niet?)*

De volgende vraag is alleen van toepassing als het huishouden 'ja' heeft geantwoord op vraag 5.

4.2 Woonpreferenties

37. Heeft u inmiddels andere woonwensen dan de vorige keer dat u ging verhuizen?

38. Welke woonwensen zijn er dan veranderd in de tussentijd?

Dit kan te maken hebben met de woning, maar ook met de 'tenure status'.

39. Ziet u uw huidige woning dan als een tussenstap naar een gewenste woning?

4.3 Belemmeringen woningmarkt

40. Bent u actief op zoek naar uw volgende woning?

Actief op zoek = kijken naar advertenties, reageren op woningen, bezichtigingen etc.

41. Wat onderneemt u om uw volgende woning te vinden?

Hoef niet te worden gevraagd als het huishouden dit al duidelijk heeft gemaakt als antwoord op de vorige vraag

42. Waarom bent u nog niet verhuisd naar uw gewenste woning/heeft u nog geen geschikte woning gevonden?

Dit kan komen door het aanbod, maar het kan ook komen door andere beperkingen, zoals regels omtrent het verstrekken van een hypotheek etc.

Blok 5 – einde interview.

Belangrijk: hartelijk bedanken voor deelname!

43. Heeft u het idee dat ik nog wat belangrijke informatie heb gemist tijdens dit interview? / is er nog iets belangrijks wat geldt voor uw situatie wat u nog niet heeft kunnen vertellen?

43. Dit was het interview, heeft u verder nog opmerkingen / vragen?

44. Wat vond u van het interview?

45. Wilt u op de hoogte worden gehouden van de resultaten van dit onderzoek?