

The road from stated to revealed preference

How policy opens new doors for first-time buyers

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Preface

Before you is the master thesis entitled 'The road from stated to revealed preference', written as a final report for graduating the master track Management in the Built Environment. In the beginning of the graduation process, I was not certain what I wanted to research during my thesis project, but I did know that I wanted to do research related to the housing market. The matter interested me, as it is relevant in times of housing shortage. This led me to the topic 'following the housing needs', as I was interested in the importance of new construction, and how new construction is part of the puzzle to solve the housing crisis. This topic also matched my personal study goal to research a relevant and current issue. Especially the position of the first-time buyers interested me, as their position is often referred to in media and is a current issue in my own environment.

During the research process, my aim was to achieve a better understanding of the functioning of the housing market, and I wanted to learn more about how to start- and how to conduct a research project. Beforehand, I was curious about how an iterative project, which takes multiple months, is managed and how choices are made regarding relevancy of certain themes and topics. Especially in the start of the research project, it is hard to imagine how such a process works in practice.

Looking at personal development, I learned different things while conducting the research and writing the report. First, I had never done quantitative data analysis before. As I had to work with different datasets and SPSS, I had to develop skills to work with this programme. Second, after encountering some difficulty in recruiting participants, I found conducting the interviews both fun and interesting to do, as I got to learn more about the experiences of young adults in the heated housing market.

I want to thank my supervisors Marietta Haffner and Harry Boumeester for all the feedback and guidance provided throughout the process of writing the thesis. Hopefully, this thesis will contribute to the understanding the wishes of first-time buyers in the housing market.

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Colophon

The road from stated to revealed preference - How policy opens new doors for first-time buyers.

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Abstract

The Netherlands is suffering from a housing crisis. Interventions of the government, new policies and new construction play a significant role in the way the housing stock is being shaped, and the housing crisis is being approached. An insufficient number of available houses is not the only problem present in current housing stock. Also, a qualitative mismatch considering housing characteristics is present in the housing stock, as a large part of the population does not live in the house they prefer. This qualitative mismatch also seems to be present in the new-build market, looking for example at housing typology. Therefore, in this study, it is researched how changing housing policies affect supply in the new-build market, and to what extent this new supply meets the stated and revealed preferences of first-time buyers. In order to research this matter, a mixed method approach is applied. A literature review was conducted to gain better understanding of new housing policies and their (potential) effects on the new-build market. Quantitative analyses using the WoON 2021 and WoON 2024 datasets were conducted to gain deeper understanding of the stated and revealed preferences of first-time buyers, and to assess if those preferences changed over time. Lastly, interviews were conducted to capture the trade-offs first-time buyers make while searching for a house and which priorities arise. It was found that new policies (indirectly) lead to inner-city construction, more affordable housing, smaller housing and the realisation of more apartments. Furthermore, it was found that the match between stated and revealed preferences in the new-build market is limited. Scientific and social relevance is present in the change in the characteristics of new supply for first-time buyers caused by new policies, in the degree of similarity between stated and revealed preferences of first-time buyers in the new-build market, and in the order of trade-offs made by this group.

Keywords – First-time buyers, new-build market, stated preferences, revealed preferences, trade-offs

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1. Introduction

1.1 Introduction and problem statement

As the Netherlands is suffering from a housing shortage, the Dutch government takes on a steering role again. Recently, in 2024, the '*Ministerie van Volkshuisvesting en Ruimtelijke Ordening* (VRO) was re-introduced to shape this role. Aim of this ministry is that everyone has a place to live, and the arrangement of surrounding areas (Rijksoverheid, n.d.-b). After years of absence, the cabinet now aims to build 100,000 houses a year (Rijksoverheid, 2024). In order to achieve this, the focus is on new construction. The active role of the government is present in new housing policies like the '*Nationale Woon-en Bouwagenda*', consisting of, among other things, the programme '*Woningbouw*' and the programme '*Betaalbaar wonen*' (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a).

Governmental policies focussing on affordability and on inner-city building, steer decision making of developers on how and where to build. For example, to achieve affordable new construction, cuts are made on square meters per dwelling (Koops, 2024). CBS (2025a) shows a trend of decrease in surface area of new-build rentals and owner-occupied houses. The average surface of owner-occupied housing has gone from 192 m² to 173 m² in the period between October 2022 and June 2025. Also, NVM (2025a) recognises the trend of '*krimpflatie*' in the new housing stock, in order to keep houses affordable. Still, this relative expensive market remains attractive, as new construction has certain benefits compared to older houses. Examples of these benefits are low energy costs, limited maintenance costs and the freedom to design the house from scratch, as buyers are the first owners (Vereniging Eigen Huis, n.d.).

However, problems such as the mismatches in the housing stock still play a significant role in the current market. Not only a shortage in the number of needed houses (quantitative mismatch) can be recognised, but also a discrepancy in the preferred characteristics of houses (qualitative mismatch) can be identified. According to De Nederlandse Bank (DNB), 1.8 million households do not live in the property they wish to buy or rent (DNB, 2023). Also, a mismatch in pricing range can be identified (Aitink, 2024). According to Aitink (2024), demand for houses priced below €200,000 is high, while the supply of such houses on Funda was low. Part of this overall mismatch takes place in the new-build market. For example, demand for single-family dwellings is bigger, while a large part of new construction consists of apartments (NEPROM, 2024).

In this research, the focus will be on owner-occupied housing. Reason for this is the composition of the housing stock which mostly consists of owner-occupied housing (59%, survey period 2023-2024), and the (fiscal) attractiveness of buying a house in the Netherlands (*WoonOnderzoek*, 2024;Rijksoverheid, n.d.-b). The current popularity of owner-occupied housing is high, reflected in the shortage indicator of 1.9 in the fourth quarter of 2025 (NVM, 2025c). Firstly, benefits that come with homeownership, such as building up assets and fiscal benefits play an important role (Rabobank, n.d.), even though there is no guarantee that house prices will continue to go up such as the market in 2023 showed (CBS, 2025e). However, the risk of decline in housing prices seems limited as the housing market is heated and is reinforced by research of Boelhouwer et al. (2021). This study states that there is no speculative bubble (at least in the market in the year 2021) and does not predict a bubble until 2025. Secondly, attractiveness of homeownerships might be reinforced by high rents and long waiting lists for social housing (Boelhouwer & van der Heijden, 2022).

A second focus of this study will be on first-time buyers, as this group is especially affected by the mismatch in the housing market, and as those younger generation has a preference for buying instead of renting (Hoekstra et al., 2025; Aitink, 2024;DNB, 2023). According to

Boelhouwer & van der Heijden (2022), this group suffers the most from the housing shortage. Options are limited for starters in the housing market, as social housing involves long waiting lists, and renting in the private sector is expensive. As they want to enter the homeownership, they face high purchasing prices relative to income, and the increased difficulty of financing a home (Boelhouwer & van der Heijden, 2022; Boon & Koning, 2021). They also experience significant negative effects in addition to the problems related to their position in the market. According to ING (2024), important life events, like getting married, are postponed because of the housing shortage. As mentioned before, younger people prefer buying a house because of benefits such as building up assets.

Therefore, the aim of this research is to address how changing housing policy influences the position of first-time buyers in the new-build market, and how this new supply meets the preferences of first-time buyers. This aim is relevant, since the Dutch housing market originally acts as a '*doorstroommarkt*' and stimulates household mobility to (new) more expensive dwellings, while less expensive existing dwellings then become available for first-time buyers (Dol et al., 2010). New policies such as the programme '*woningbouw*' steer to build two-thirds of the new housing stock to be affordable and might lead to more supply for first-time buyers. NVM (2025a) already signalled a change to a '*startersmarkt*', as supply of smaller apartments better fits this category than the group '*doorstromers*'.

In combination with the large share of preferences for homeownership stated by the younger generations, chances for younger generations to access homeownership might be turning (Hoekstra et al., 2025). If this is the case the resulting mobility of these households will reveal their preferences. Jansen et al. (2011) argues about how the stated, initial preference is influenced by external factors, for example supply, and leads to the actual choice (revealed preference). The stated preferences, and accompanied trade-offs leading to revealed preferences, contribute to knowledge about the match of the demand from first-time buyers and the supply in the new-build market.

1.2 Scientific and societal relevance of the research

As the literature study in chapter two discusses, different research considering housing preferences has been conducted. Literature that has been found regards general housing preferences, preferences of elderly, and preferences of first-time buyers. It was noticeable that no literature has been found considering housing preferences of first-time buyers in the new-build market. Aim of this thesis is to contribute to the knowledge regarding this specific relation, and to limit the existing knowledge gap.

To further scientific relevance, it is important to address the differences between the stated and revealed preferences of first-time buyers. What does the focus group prefer, and which choices lead to the best option possible for them? Knowing in which order first-time buyers are willing to make concessions helps identifying priorities for this group. We already know first-time buyers are more flexible as it comes to doing concessions (not on location), compared to people who already own a house and want to move (Aitink, 2024). This research contributes to the knowledge on what specific housing or environmental characteristics are preferred by first-time buyers. How these preferences show in the new-build market are addressed by evaluating the match of supply and demand for this specific group in the new-build market, and might contribute to research considering the transition from '*doorstroommarkt*' to a more '*statische markt*', as new stock might relate more directly to demand (Dol et al., 2010).

To further societal relevance, it is important to address how established policies influence a potential change in housing supply for first-time buyers. This helps to improve the understanding of the position of the first-time buyer in the housing market. As mentioned before, the current position of the first-time buyer is complicated, and conclusions of this

research may suggest a possible shift in this position. In order to understand this change, there is a need to address presence of first-time buyers in the new-build market over the years. This time window allows for identifying potential changes in preferences over the years. Where traditionally the existing market formed the most accessible option for first-time buyers (characteristic of 'doorstroommarkt'), this market now might be expanded because of policy that leads to construction of smaller, more affordable new-build dwellings (Dol et al., 2010).

1.3 Objective and motivation

In this thesis, there is a focus on policies, the match between demand from first-time buyers and the supply in the new-build market, and on the trade-offs made by first-time buyers. Objective is to contribute to the knowledge gap regarding the preferences of first-time buyers and how preferences show in the new-build market.

The thesis provides a comprehensive overview explaining how housing policy influences the new-build market in such a way, that new doors for first-time buyers might or might not be opened. It gives insight into how the current mismatch in the new-build market might possibly lead to a new match with a different group (it is already identified that the supply of apartments better match first-time buyers than 'doorstromers'). How this new supply answers demand from first-time buyers is researched by assessing their preferences.

It is important to keep in consideration that new policy like the '*Nationale Woon- en Bouwagenda*' (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022) has been established quite recently. Because of long construction times, adjustments in housing supply caused by those policy changes might become clearer in a few years (as some changes in revealed preferences might not be that clear yet, unlike the identified change in 'dwelling typology'). However, a time window has been implemented in this research to capture some of the changes as a result of new policy. Therefore, this thesis can be seen as a preliminary study for a more complete research.

The end product of this thesis consists of a number of recommendations for developers and governmental bodies on how to limit the gap between supply and demand from the first-time buyer. These recommendations were derived from the discrepancy between stated and revealed preferences of first-time buyers identified from the quantitative and qualitative analyses. The interviews provided additional information regarding preferences and priorities of this consumer group by identifying the order of trade-offs.

1.4 Research questions

As new housing policies aim to stimulate the availability of affordable housing, a more suitable supply for first-time buyers might emerge. This may offer opportunities for first-time buyers in the current, heated housing market, but also might lead to a need for making certain choices considering housing preferences. To research this matter, it is important to address what policy changes have taken place, and how these changes effect the housing market. A second step is to look at the stated preferences, and to what extent these preferences match with the revealed preference. The present matches or gaps tell something about the match between demand and current supply. The main research question and sub-questions are therefore formulated as follows:

-How does changing housing policy lead to different supply in the new-build market, and to what extent does this supply meet stated and revealed preferences of first-time buyers?

1. What policy changes can be recognised, and how do these affect supply in the new-build market?

This question is answered by conducting a literature review, analysing (new) housing policies and analysing how housing supply changes or will potentially change because of policy developments. A focus is on national policies to answer this sub-question.

2. What are the stated preferences of first-time buyers in the new-build market, and have those preferences changed over time?

First, the literature study present in chapter two elaborates on stated preferences. To research stated preferences it was important to know what individuals can choose from. Two classifications were researched: Preferences regarding the characteristics of the environment and the characteristics of the dwelling itself. The stated preferences of first-time buyers in the new-build market were studied using the data of the WoON 2021 and the WoON 2024, focusing on wishes of potential first-time buyers. A time frame allowed to grasp potential change in stated preferences over time. To gain a better understanding of stated preferences, interviews were conducted. Those interviews allowed to find more preferences than that were researched in the WoON surveys.

3. How do revealed preferences of first-time buyers show in the new-build market, and have those preferences changed over time?

Just as for the stated preferences, the literature review present in chapter two explains more about revealed preferences. To research the revealed preferences, it was important to know what external factors are present that lead to a change from stated to revealed preference. The revealed preferences of first-time buyers in the new-build market were studied using the data of the WoON 2021 and the WoON 2024, focusing on wishes of first-time buyers who just bought a house. To gain a better understanding of revealed preferences, interviews were conducted. Those interviews allowed to find more information on what choices were made to lead to the final decision, and how satisfied people are with this revealed choice.

4. In which order are trade-offs made by first-time buyers, as they enter the new-build market?

To answer the last sub-question, semi-structured interviews were conducted. These interviews provided more information about the wishes (preferences) of first-time buyers, as the interviews allowed for identifying preferences that were not part of the WoON 2021 and WoON 2024 databases, and therefore were not included in the answers to sub-questions two and three. The interviews allowed for a more complete overview of the pathway people follow to go from stated to revealed preference. An important concept that was discussed during the interviews were the trade-offs people made during this process. The order in which people make those trade-offs tell something about the priorities individuals have for certain characteristics. Four interviews were conducted to capture the stated preferences, revealed preferences and trade-offs first-time buyers made as they were searching for a house or just bought a new-build dwelling.

1.5 Scope

Figure 1.1 shows the scope of this research in orange. The scope is defined by the focus on three concepts: The new-build market, owner-occupied housing and the first-time buyer. The first focus was the result of the identified research gap, as little to no information was found regarding preferences related to the new-build market. The second boundary was set not to focus on the whole new-build market, but only on owner occupied housing. Reason for this is that, as mentioned before, this category is most prevalent in the Netherlands. A third boundary is the focus on first-time buyers. The combination of the complex position of this group in the housing market and current housing policies affecting, among other things, affordability of new construction, increases the societal relevance of this study.

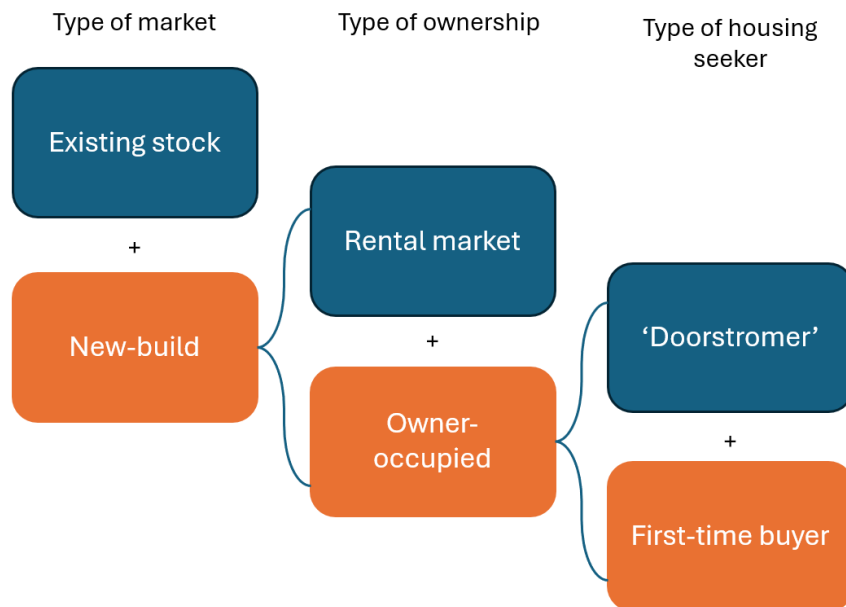


Figure 1.1 Scope of the research marked in orange (Own work, 2026)

1.6 Reading guide

This report consists of seven chapters. In the second chapter, the literature study and conceptual model are discussed. This chapter provides more information regarding housing policy and housing preferences, and how these concepts are incorporated in the design of the research. The third chapter explains the methods applied to conduct the research. It elaborates on research techniques and data management during the research. In the fourth, fifth and sixth chapter, the results of the research are presented. A combination of visualisation and textual justification shows the outcomes of the quantitative and qualitative analyses. The seventh, and last chapter, includes the conclusion, practical implications and a critical reflection. After the seventh chapter follows the literature used while writing the report and the appendices. In the closing appendices the informed consent forms and interview guides, additional results, coding scheme for the interviews, data management plan, and statement on the use of AI are present.

2. Literature study and conceptual model

2.1 Literature study

2.1.1 Housing policy

The Netherlands is experiencing a housing shortage and the associated consequences, such as rising house prices. After years of absence from national politics, the cabinet now wants to intervene to solve the housing shortage. An important step in this is the re-establishment of the *Ministerie of Volkshuisvesting en Ruimtelijke Ordening* in 2024. In order to achieve goals of the ministry, like the aim that everyone has a place to live, different policies are developed and implemented. Part of those governmental policies is to realise 100,000 houses a year (Rijksoverheid, 2024). Unfortunately, this number has not been reached in recent years (CBS, n.d.).

Over the past few years, changes in housing policies can be recognized as a result of different challenges. Maybe the most important change in policy is regaining control of the housing market by the government, after years of letting the market decide the way development took place. The combination of the lack of control and challenging trends led to a housing shortage and a heated housing market. Demographic developments like the growing population and the growing number of households are examples of challenging trends that has arisen in recent years. Also, the increasing number of (single) elderly ask for more housing for this particular group to stimulate flow (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a). Such trends ask for a certain policy while developing the built environment.

The '*Nationale Woon- en Bouwagenda*' outlines the task of the government for the upcoming years. Availability, affordability and quality are important concepts in this agenda. Six different programmes, including programme '*woningbouw*' and programme '*betaalbaar wonen*', form current approach of the government. In programme '*woningbouw*', the concepts of availability and affordability are clearly an objective. Programme *woningbouw* states three important focus areas: Strengthening government control, accelerating the building process and stimulating faster construction. The programme sets the target of building 900,000 dwellings by 2030, of which (at least) two-thirds are affordable (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022g). This number shows the importance of new construction. In programme '*betaalbaar wonen*', affordability is a clear objective. Goal is to form a better balance between the costs people make on housing and income (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022d). Together, all six programmes form the common thread to realise a pleasant living environment of high quality.

Different policies can be identified stimulating and influencing current construction. '*Wet Versterking regie Volkshuisvesting*' is such steering policy, and allows for the government to take on its steering role again and to influence new construction (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, n.d.-c). Another example of a steering policy is the *Nota Ruimte* (previously NOVI). This new document describes how the environment should be shaped. As this document replaces the NOVI in 2026, it is not yet possible to elaborate on how this policy influences construction. An important part of the NOVI was the focus on the compact city (Hamers, 2020). For years, this way of building has been the norm. Reasons for this regard protecting the environment, mobility and economy (Hajer, 2011). As a result, a lot of development focusses on inner-city building. Because of the housing need, also other strategies are proposed. Harbers et al. (2024) discusses the strategy '*straatje erbij*'. Unlike the traditional focus on inner-city development, this is more of an outside city development, close to the existing borders of the city. Although this strategy could contribute to solving the current crisis, various disadvantages are identified.

Financial instruments, for example subsidies, play an important part of the proposed policies. A first example of a subsidy is the *Woningbouwimpuls* (WBI). Municipalities can call upon this benefit from the government to realise larger projects, of which a minimum of 50% is affordable (maximum price of €405,000). In 2024, this funding was used to build almost 50,000 houses, of which almost three-quarters were affordable (Rijksdienst voor Ondernemend Nederland, 2025). Another example is the application of the *Realisatiestimulans*. This funding is meant for municipalities to realise affordable housing. They receive a certain contribution (€7,000) per affordable dwelling (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025d). These two subsidies are examples of how the government tries to steer new construction using monetary incentive. The *Nationale Woon- en Bouwagenda* elaborates on more financial instruments, like the *volkshuisvestingsfonds*, *stimuleringsregeling ontmoetingsruimtes in ouderenhuisvesting* and *stimuleringsregeling wonen en zorg* (VWS) (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a).

The changes in policy might contribute to a development regarding the functioning of the housing market in the Netherlands. The housing market in the Netherlands functions as a ‘*doorstroommarkt*’, where new housing construction stimulates residential mobility, enabling first-time buyers to purchase a house in the existing housing market (Dol et al., 2010). New policy (*Programme Betaalbaar Wonen*) steers to constructing more affordable houses. Two-thirds of new construction should be affordable. For owner-occupied houses, this means in 2025 a maximum price of €405,000 (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, n.d.-b). The combination of building affordable and of the focus on inner-city development, resulted in a mismatch in the current new-build market (NVM, 2025a). The demand for terraced houses is higher than the demand for apartments, however, more apartments than terraced houses are being built (Keers & de Zeeuw, 2022). Keers & de Zeeuw (2022) state a preferred ratio of 70% single-family houses and 30% apartments. In practice, NVM (2025a) indicates a ratio of 48% apartments, and 52% other typologies, and already indicates a change to a ‘*startersmarkt*’, as supply of smaller apartments better fits first-time buyers than the group *doorstromers*. Despite this mismatch, the overall demand for new construction is big. Possible reasons for this are the low energy costs and less maintenance, compared to existing houses.

2.1.2 The concepts of stated and revealed preferences

‘*Every person lives and operates within the framework of choosing from alternatives of life’s endeavours in whatever area.*’ This quote of Zinas & Jusan (2012) shows that decision making is influenced by alternatives offered to the person who has to make the decision. It is important to understand the difference between ‘preference’ and ‘choice’. Jansen et al. (2011) states those concepts are not the same. The first word has to do with wish or demand, while the second word has to do with behaviour. Two important concepts related this theory can be identified: The stated preference and the revealed preference. Jansen et al. (2011) talks about how the initial preference is influenced by external factors, for example supply, and leads to the actual choice. This means that the preferred choice may be something completely different than what people actually choose. de Jong (1997) even states that (initial) housing preferences are not really useful, as they are not achievable.

Priemus (1984) describes similar concepts, namely the *subjectieve ideaalbeeld* and the *aspiratiebeeld*. The first concept is ideal, not influenced by limiting external factors, and the second concept is more related to the realistic position of the individual in the housing market, as it does take external factors into account. How external factors influence the *subjectieve ideaalbeeld* depends on the scope of action (*handelingsruimte*). de Jong (1997) connects this dependency among other things to financial situation of the household (see figure 2.1). This figure shows the relationships between income and the freedom to realise preferences, and to

reach quality. de Jong (1997) also discusses other external factors, like supply and the connectedness to a certain place.

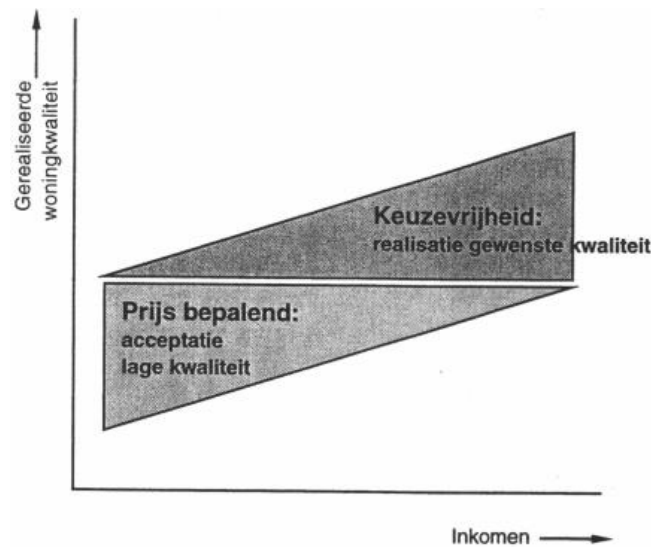


Figure 2.1 Relationship between income and freedom to realise preferences (de Jong, 1997)

2.1.3 Empirical findings: stated and revealed preferences

Housing preferences are quite a broad subject. This section elaborates on different ways to measure preferences. Preferences could be very technical of nature, like the energy label, or could be more socially related, like the preferred neighbourhood. Different preferences present in empirical findings are listed in table 2.1. Examples of websites where people do research for a (newly built) house are *Funda.nl* or *nieuwbouw.nl*. Websites like these allow visitors to refine their search by offering search engines. Visitors can filter their results, searching for example for a specific place, pricing range, housing typology, surface, surface for the plot, energy label, outside space etc. (Aanbod Pagina Nieuwbouw.nl, n.d.; *Funda Aanbod Nieuwbouw*, n.d.). As their initial, stated preference might not lead to sufficient results, housing seekers might need to change their input in the searching machine. Figure 2.2 shows six parameters that were the most popular according to Funda (Kijkcijfers 2025: Dit Zegt Onze Data over Het Afgelopen Woonjaar, 2025).



Figure 2.2 Most popular housing characteristics in 2025 according to Funda ((Kijkcijfers 2025: Dit Zegt Onze Data over Het Afgelopen Woonjaar, 2025)

Research by Boumeester et al. (2005) dived deeper into specific housing wishes of residents living in two new construction projects. This study examined different characteristics of new construction projects that residents prefer and why, and how the concepts of the design of the

new construction projects correspond with the experience of the residents. A distinction was made between preferences regarding characteristics of the house itself and regarding characteristics of the living environments. It was found that residents of the two researched housing estates prefer, among other things, view, scenery, presence of nature, dwelling typology, number of rooms, surface of the living room and architectural style.

As stated in chapter one, there is a focus on first-time buyers in this thesis. This period of life influences preferences. According to DNB (2023) the preference for a particular property is age-dependent. Young people prefer purchasing a house rather than renting a house. Research by BPD (2019) shows that in particular older millennials want to buy a house (70%). Among younger millennials, this percentage is smaller (51%). Prospective movers do not correspond with one homogenous group but can be divided in different groups with diverse wishes and needs. Which preferences a certain group has, depends on their position in the career/life cycle. The theory consists of two concepts, 'household', related to age and phase in life, and 'career', related to income. The career/life cycle theory states that transition between different phases in the career/life cycle leads to movement, as a different phase can lead to different wishes or needs (Boumeester, 2004). The thesis of Boumeester (2004) discusses the career/life cycle theory, and discusses the relationship between the timing in the lifecycle and the decision to move to a rental or owner-occupied house. The reason for this might be that they are early in their life cycle, so they can optimally benefit from purchasing a house. Not only the utility of the property itself, but also the property as an investment was indicated here as important reason to purchase a house. First-time buyers might have a definition of their dream house, while circumstances, like current market, make this achievement impossible. In order to achieve homeownership, trade-offs are made leading to the most satisfying option. Aitink (2024) even states that big trade-offs need to be made for first-time buyers, in order for them to buy a house.

The thesis of Hoefnagel (2011) examines the values and wishes of starters in the housing market in Utrecht. This research elaborates on the intrinsic motivation for certain choices regarding housing. The researcher makes a distinction between the type of starter, as this group consists of a wide range of people with different wishes and values. The researcher uses the theory of Clark & Dieleman (1996), that elaborates on how educational/job-, household- and housing career influences wishes of the individual. The relationship between human behaviour, related values and moving as a way to achieve a certain value, is discussed. The preferences for certain type of ownership, location, surface area, layout of the property and different facilities of the house were researched. Remarkable is that most respondents of the survey of the research prefer renting instead of buying. Other findings were a preference for living in the city centre (*centrum stedelijk*), a preference for a surface area between 50m² and 60m² and the importance for an outside space and storage area.

The thesis of Besselink (2015) studied wishes of well-educated starters in the region of Eindhoven. Similar to the research by Boumeester et al. (2005), the research makes a distinction between housing characteristics (housing typology, surface, appearance of the property, different facilities of the semi-public space) and characteristics of the environment (physical characteristics, social aspects and functional characteristics). Under separate category price and ownership was discussed. A remarkable finding is that first-time buyers point out housing characteristics as more important than location, and that both are important while looking for a house. The research also discusses bottlenecks that starters experience, priorities they have, frequencies of concessions that are made by this group and the willingness to move. As focus of this research is on revealed preferences and a lot of different parameters are discussed, detailed conclusions will not be mentioned here.

Maaskant (2024) studied the situation of first-time buyers in the housing market, and how financial instruments and preferences influence the position of the first-time buyer. Just as Hoefnagel (2011) and Besselink (2015), Maaskant (2024) makes a distinction in the group of studied starters in his study. In his research, first-time buyers were divided in two groups: Recent first-time buyers and potential first-time buyers. He indicates that the potential first-time buyer often have high standards considering their wishes, while the moving behaviour of recent-buyers shows that individuals have to make concessions to these wishes to be able to acquire a house. He discusses, among other things, the reduced affordability in the housing market. The conducted WoON 2021 analysis indicates that the researcher discovered a few differences between stated and revealed preferences of first-time buyers. Via interviews the researcher identified, among other things, different preferences like location, the condition of the house and characteristics of the house.

Research by Veerhoek (2024) relates to first-time buyers in the Randstad. The research elaborates on the position of the first-time buyer in the housing market, and on housing preferences and concessions. The study compares stated and revealed preferences regarding the living environment (like type of living environment) as well as housing characteristics (like type of dwelling). The results of a survey showed that the purchase price is the most important preference for first-time buyers. Other important preferences were outside space (presence of a garden), distance to facilities (proximity of a supermarket) and typology (detached typology).

Elderly people, on the other hand, have completely different preferences than starters. Ossokina & Arentze (2020) discuss how housing needs possibly change as a result of growing old. Three potential changes in housing needs are stated; The wish for comfort, accessibility and safety, the wish to move to a house with a smaller surface and the presence of space for social interaction. Parameters researched are related to the building itself (for example surface of the house, outside space, common garden, common inside space), or related to the location (for example distance to shops, distance to the park or distance to the public transport). Those parameters were compared to a certain reference, so preference of the seniors could be determined.

Different research is conducted to grasp the level of satisfaction of certain dwelling characteristics. Research by Jansen (2013) examined for example dwelling type, tenure, architectural style, residential environment, size of the living room, number of rooms, backyard size and size of the balcony, and used these parameters to assess the relation between preference and appreciation. Preference was identified as a factor that impact appreciation. The more people can align their way of living with their preferences, the more they appreciate their houses. Another element that influences appreciation is the actual experience. When individuals experience certain situation or preference, this increases level of appreciation.

Lastly, the national survey of the WoON (*WoonOnderzoek*) conducted by CBS on behalf of VRO (previously BZK) examines stated and revealed housing preferences of first-time buyers (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025c). This research examines wishes of potential first-time buyers (stated preferences) and eventual choice of first-time buyers after moving (revealed preference). Preferences that have been studied include, among other things, the living environment, property ownership type, dwelling typology, number of rooms, garden and price people are willing pay.

Housing characteristics	Characteristics of the living environment
Form of ownership	Living environment
Price	Physical characteristics
Housing typology	Social characteristics
Surface	Functional characteristics
Number of rooms	Proximity/facilities
Number of bedrooms	Scenery
Layout of the house	Presence of nature
State of maintenance	Quality
Architectural style	Architecture
Year of construction	Semi-public space
Number of toilets	Public transport
Kitchen layout	Safety
Parking facilities	
Outside space (presence and surface)	
Quality	
Surface of the living room	
Storage space	
Semi-public space (in multi-family homes)	

Table 2.1 List of housing preferences (derived from Besselink, 2015; Boumeester et al., 2005; de Jong, 1997; Hoefnagel, 2011; Jansen, 2013; Veerhoek, 2024).

2.1.4 Preferences considering housing characteristics and environment

In order to say something about different preferences individuals can have, it is important to know what people can choose from. This section discusses greater detail of six different parameters (derived from preferences examined in the aforementioned studies). The different parameters discussed are the type of ownership, dwelling typology, surface of the house, number of rooms, presence of a garden and outside space, price of the houses and location.

Ownership type- The ownership typologies can be divided in three categories: Owner-occupied housing, social housing and private rental housing. According to the (WoonOnderzoek, 2024d) the housing stock consists of 59% owner-occupied housing, 26% social housing and 15% private rentals. This division shows the preference for homeownership in the Netherlands. The preference for owning or renting a house depends on the wishes of the individual. Although younger people may prefer buying a house (a finding that is contradicted by the research by Hoefnagel (2011)), their position in the life cycle may lead them to value the freedom that a renting offers, such as the reduced responsibility for maintenance, which is mostly the landlord's obligation. Other factors that influence this preference are the long waiting lists for social housing, which might make this type of housing unavailable for starters, or high prices for buying a house or renting a house which might impact the preference of the individual.

Dwelling typology- According to CBS (2025c), the housing stock can be divided into different dwelling typologies. In 2025 the total stock consists for 37% of multi-family dwellings, and for 63% of single-family dwellings. The single family dwellings can be divided into the categories detached dwellings (20%), semi-detached dwellings (14%), corner dwellings (20%), and terraced dwellings (46%) (and a small number of unknown typologies). The multi-family dwellings and the four categories of single-family dwellings can be divided in further order of

typologies, but this level of detail is not relevant for this study. As mentioned before, the demand for single-family dwellings is higher than the demand for multi-family dwellings.

Surface the house/number of rooms- By far, the biggest part of the housing stock considering owner occupied houses is 120m² or more (60%). A much smaller group (27%), is between 90m² and 119m². The smallest group (14%) is 89m² or smaller (WoonOnderzoek, 2024c). The biggest part of the housing stock has five rooms or more (56%). A much smaller part has four rooms (28%). The two last groups have three- (13%) or two or less rooms (3%) (WoonOnderzoek, 2024c) As mentioned before, a trend in the decline of surfaces of new construction is recognizable. Partly, this is because of the number of apartments that is being built, but also the average surface of single-family dwellings decreased over the years (van den Eerenbeemt & Frijters, 2025).

Garden/outside space- According to the WoonOnderzoek (2024e), most single-family dwellings have a garden (83%). A smaller part has a garden and a balcony (13%), the remaining houses only have a balcony, a different outside space or no outside space (5%). The vast majority of apartments only has a balcony (71%). A smaller part has no outside space (14%), and a similar amount only has a garden (12%). The remaining apartments have a garden and a balcony, of has a different outside space (3%).

Price- It is no new fact that the heated housing market has led to high purchasing prices and high rental prices. The average housing price has risen to an amount of €502,000 in the fourth quarter of 2025, and the average rental price is €1,838 in the fourth quarter of 2025 (vrije sector) (NVM, 2025d, Betaalbare Huurwoningen Verdwijnen van de Markt - Pararius Huurmonitor Q4 2025, 2026). The availability of houses with a certain price range is here categorized in three groups. The majority of houses (47%) is in the pricing range €390,000 or less. The second group (34%) is priced between €390,000-€590,000. The minority is priced €590,000 or higher. The biggest group rental properties are social rental properties (64%). A much smaller number of rental properties are private rental properties (36%) (WoonOnderzoek, 2024a; WoonOnderzoek, 2024d). Effects of high housing and rental prices have several effects, like the increasing number of first-time buyers that receive financial gifts from parents when starters buy a house (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025c).

The WoonOnderzoek (2024f) states that the biggest part of people who are looking for a house hope to find a house with the maximum price of €390,000 (24%). The second biggest group looks for a rental property with a rent between the '*aftoppingsgrens*' and '*liberalisatiegrens*'. (22%). An equally large group (15%) is looking for a house of €490,000 or more or is looking for a rental property with a maximum rent of the *aftoppingsgrens*. The two smallest groups are looking for a rental in the '*vrije sector*' (15%), while the group looking for a house priced between €390,000-€490,000 (10%) is the smallest.

Location- A location can also be defined as the literal place in the Netherlands, for example in a certain city or town, or a certain region, like the Randstad. The research by Visser & van Dam (2006) makes a distinction between physical aspects of the location (for example presence of nature), social aspects of a location (for example number of owner-occupied houses) and the functional aspects of the location (for example distance to city centre of public transport). Location can also be defined by the living environment. Research by ABF (2012) makes a distinction between six types: City centre, urban outside city centre, green urban, village centre, rural living and working area. The Ministerie van Volkshuisvesting en Ruimtelijke Ordening (2025a) makes a distinction between a very strongly urban, strongly urban, moderately urban, slightly urban and non-urban living environment in the results of the

WoonOnderzoek Nederland 2024. The report of Faessen et al. (2025) states that biggest demand for new construction is in city centre.

2.1.5 Trade-offs

The research by Zwetselaar & Goetgeluk (1994) states the combination of preference, opportunity and constraint leads to a certain result for the individual. The current housing market clearly influences the concepts contextual opportunity and constraint. For example, the lagging new construction limits opportunity for people who are willing to move, and the high housing prices form a barrier for people who want to enter the housing market. The constraints might limit the expectation of the individual and might lead to trade-offs.

In order to understand which trade-offs are made by housing buyers, priorities play an important role (de Jong, 1997). The more wishes and priorities can be fulfilled, the closer an individual gets to his ideal image. As searchers experience more freedom, for example because of their financial situation, they can set more requirements than people who do not experience a lot of freedom. The book of de Jong (1997) identifies the following concepts that influence the requirements of movers: The reason for moving, age, family composition, 'woonervaring', broader human needs (Maslow), flexibility of property features, and the scarcity of property features. All those concepts influence the intrinsic wishes and priorities of an individual.

Research by de Bakker et al. (2013) elaborates among other things, on difficulties that starters explore as they are looking for a house in the region of the Achterhoek. Most common difficulties that starters experience are that houses are too expensive, followed by a shortage of supply in the preferred neighbourhood, the absence of supply considering houses for starters, long waiting lists for housing and financial insecurity. When people experience barriers during their search for a house, different strategies are applied. The most frequent strategies applied are searching for a cheaper house, making concessions on specific wishes or demands, searching for a smaller house, searching for an apartment or searching for an owner-occupied house instead of a rental. More recent data of funda indicate other strategies than research of de Bakker et al. (2013). According to Funda (2026) common strategies consist of bidding above asking price, agreeing to a smaller housing surface or waiting for a better opportunity.

Different studies show distinct orders regarding making concessions. The study of Maaskant (2024) identified that first-time buyers first make concessions regarding housing surface, presence of a garden and the number of rooms, while the research by Veerhoek (2024) identified that first-time buyers first make concessions regarding dwelling type and housing surface. A remarkable difference is present in the willingness to make concessions regarding outdoor space. Study of Maaskant (2024) concludes first-time buyers are willing to make concessions regarding a garden, while research by Veerhoek (2024) indicates this as a preference the first-time buyer rather not compromises on.

2.2 Conceptual model

The conceptual model in figure 2.3 shows the four proposed sub-questions and their additional concepts. The new-build market plays a central role in the design of the model. The model shows the relationship of housing policy and this market and how the stated, ideal preferences, result in revealed preferences. The arrow between stated and revealed preferences is dotted, since these preferences are not really showing in the new-build market and therefore can be seen as fictional. Via trade-offs, the fictional preferences transform into revealed preference and become visible in the new-build market.

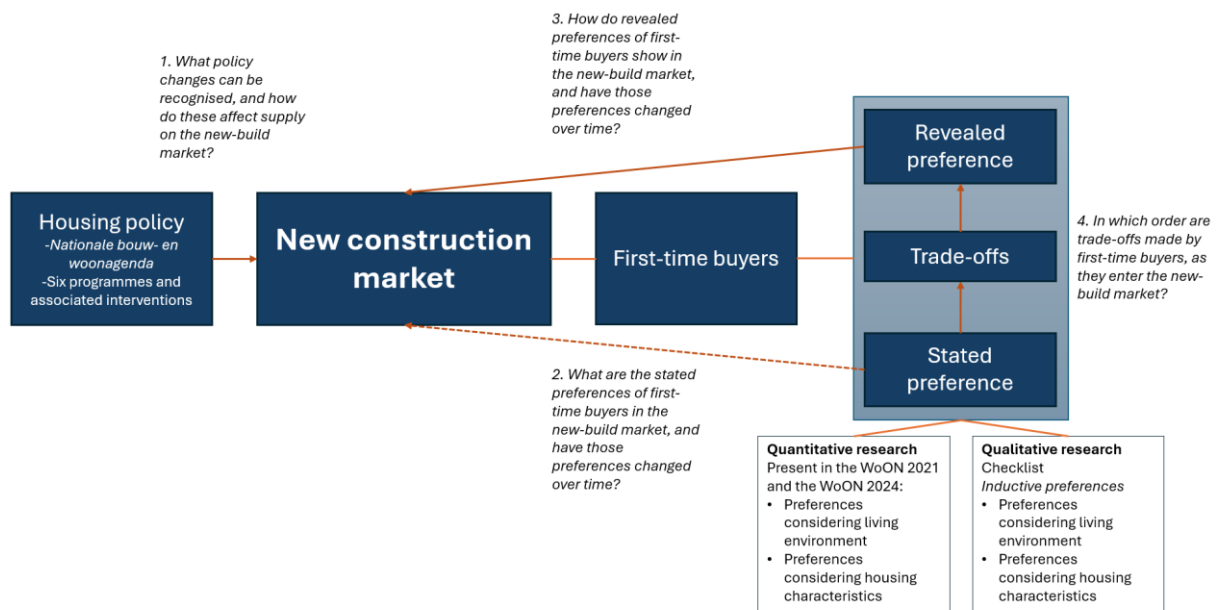


Figure 2.3 Conceptual model (Own work, 2026)

Housing policies are the first concepts that are researched in this study. As Boelhouwer & Hoekstra (2012) describe, the development of housing policies is dependent on different layers of the government (supranational governance, national governance and regional governance). Although the decentralisation played a significant role in the housing market for years, the role for the government, and thus national governance, has become more important. Therefore, on this thesis there is a focus on policies on a national level. The arrow between housing policy and the new-build market answers the first part of the main research question that addresses how new policy influences supply in the new-build market.

As mentioned before, preferences can be quite broad. The range of preferences that could be researched using a quantitative dataset is limited. After all, research is limited by the number and type of parameters available in the results of the survey. First of all, a distinction was made between characteristics of the living environment and characteristics of the dwellings themselves. Characteristics of the living environment were studied by looking at the degree of urbanisation and municipality size. Characteristics of the dwellings were researched by looking at dwelling typology, number of rooms, presence of a study, presence of a garden, presence of a garage or carport, presence of parking facilities and the price people are willing to pay. Which preference was studied in the analyses depends on its availability in the WoON 2021 and the WoON 2024.

The qualitative interviews provided more preferences and gave insight into trade-offs and priorities. This process was more inductive, since it is unpredictable which preferences would come up during the interview. Prepared questions served as a guide for the interview. During the interview, a checklist with identified characteristics from the literature was used (see table 2.1). This checklist was used to create an overview of mentioned preferences during the conversation.

An interesting point in the model is between the box of the first-time buyers and the box that includes the stated and revealed preferences. At this point, the researched stated and revealed parameters match or differ from each other. These (mis)matches answer the part of the main research question that addresses the extent to which the supply in the new-build market meets stated and revealed preferences of first-time buyers.

3. Research methods

3.1 Research design

To answer the proposed research questions, a mixed methods approach was conducted (shown in figure 3.1). This mixed method approach combines the knowledge that is already derived from literature, a quantitative (existing) dataset regarding preferences, and qualitative self-drafted interviews that allow for deeper understanding of priorities individuals have. The combination of those three elements allow to answer the main question. The overall approach of the study is similar to the approach of Maaskant (2024), who also used the WoON 2021 database and conducted interviews in his study.

The combination of the quantitative and qualitative research allowed to test the statement whether new policies lead to more supply for first time-buyers in the new-build market and allowed to gain a better understanding of preferences of first-time buyers. For the quantitative part of the study a (limited) generalization could be found among the first-time buyers, since the different preferences were identified out of the complete datasets (consisting of data from many respondents), and were analysed to find patterns. The qualitative results are much more limited, since the number of interviews conducted was not sufficient to find saturation among data obtained. Throughout the entire study, first-time buyers were defined as starters who purchase their first house and are younger than 35 years.

To answer the first and second research question, literature reviews were conducted. The first literature review is used to gain a better understanding of housing policies, and their effects on new construction. For this literature review, different governmental policies were studied, like the *Nationale Woon- en Bouwagenda*, and the associated six programmes. Documents like the *Landelijke monitor voortgang woningbouw – voorjaar 2025* were used to address the progress of the developments. Results of this literature review are presented in chapter four. A second literature review was conducted to provide further insight into the stated and revealed preferences in general, and what kind of preferences first-time buyers have. Literature covering these concepts is relevant since it provides insight into what people are actually looking for, what options are available to them, why they value certain preferences and what barriers they experience in the housing market which leads to trade-offs. Results of this literature review are presented in chapter two.

Furthermore, to answer sub-questions two and three, use was made of existing datasets. The datasets of WoON 2021 and WoON 2024 were used to study the development of stated and revealed housing preferences of first-time buyers over time. The datasets are a result of a survey conducted by the CBS on behalf of the Rijksoverheid, and therefore consist of secondary data (Blaikie & Priest, 2018). This survey data consists of data concerning different topics like housing situation of renters and homeowners, moving dynamics and housing quality (Tussen Wensen En Wonen - Resultaten van Het WoonOnderzoek Nederland 2024, 2025). The required data involves information about housing characteristics first-time buyers prefer in the new-build market. The area of tension between stated preference and revealed preference is researched by analysing, among other things, the preferences living environment, dwelling typology, number of rooms, presence of a garden and price range people are willing to pay. By comparing this area of tension over a time period (from 2021 to 2024), a potential change in matching demand and supply of first-time buyers in the new-build market can be determined. It is important to bear in mind that the stated preference regards individuals who have the wish for new construction before moving, and that the revealed preference regards individuals who

live in an existing or new-build dwelling after moving. This is because data did not allow for enough results when only individuals were selected that moved to a newly built dwelling. Still, it allows for a comparison of first-time buyers that prefer new construction with first-time buyers who have just moved.

Lastly, semi-structured interviews (qualitative) were conducted, to gain more detailed information considering stated and revealed preferences of first-time buyers and regarding the order first-time buyers make concessions while looking for a new-build dwelling. The respondents were first-time buyers which were searching for a house or just bought a new-build dwelling. These participants were recruited from the network of the researcher. The interviews were semi-structured and therefore addressed certain themes. First, general questions regarding people’s preference for an existing house or new-build dwelling were discussed, and why they have this preference. Then, questions concerning preferences of the participants and questions focussing on trade-offs were asked. Last part included closing questions. Alongside the set of prepared questions, a checklist with identified preferences from the studied literature was used (table 2.1). This checklist was used to tick off preferences mentioned by the interviewee. During the interviews, the checklist was extended as the interviewee introduced new preferences. The advantage of an interview compared to the quantitative dataset is that it allows for much broader outcomes, since a conversation is not bounded to certain preferences or categories. The interviews also allowed for drawing up a list of priorities for first-time buyers.

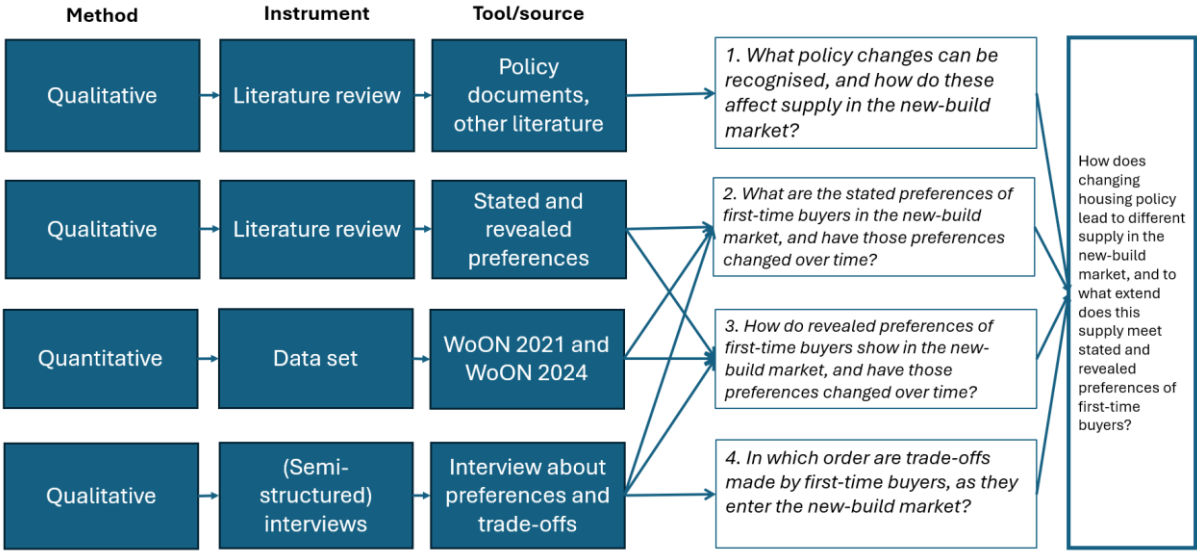


Figure 3.1 Methods applied while conducting the research (Own work, 2026)

3.2 Data collection

The research consists of literature reviews, secondary databases, and primary interviews. For the literature reviews, the search engine Google, Google Scholar and the TU Delft Repository were used to find relevant literature and sources. Those sources mostly consisted of policy documents and literature concerning housing preferences.

Figure 3.2 shows the quantitative data collection. The datasets WoON 2021 and WoON 2024 have been generated by CBS and are available through the website of the DANS Data Station Social Sciences and Humanities. The total population of the datasets consist of the total respondents in the WoON surveys. The cases this study focuses on consist of a specific group of the total population, namely the first-time buyers who are searching for a house in the new-build market (for identifying stated preferences), and the first-time buyers who just bought a new-build dwelling (for identifying revealed preferences). As the aim of this research is to say something about this group of first-time buyers and their preferences, it was important that a representative sample from the whole dataset was selected. Judgemental or 'doelgerichte' sampling has been done, so only first-time buyers were analysed (Saunders et al., 2019). This way, the data used to answer the research questions only cover a selection of the population and therefore reduce the scope of the research. The response rate was dependent on the available data of this specific sub-group in the existing dataset. When response rate was too low (below five individuals per cell) results were not included in the report. The variables (preferences) were selected based on availability and the possibility of making comparisons. Since the datasets consist of a lot of variables, not all possible variables were selected. The selection corresponded to identified preferences presented in table 2.1.

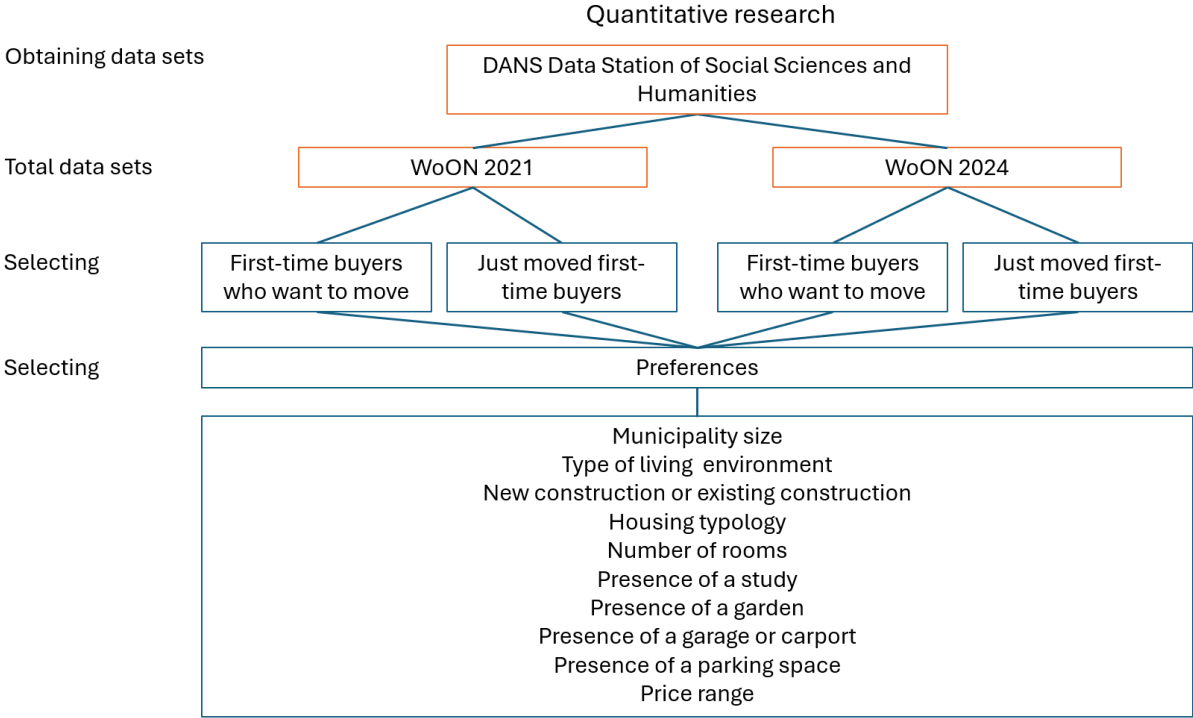


Figure 3.2 Data collection of the quantitative research (Own work, 2026)

Figure 3.3 shows the qualitative data selection. To recruit the participants for the semi-structured interviews, different approaches were applied. The first approach was to obtain contact details via an external party. Different brokers were contacted and informed about the reason for- and the purpose of this research. When the external party agreed to cooperate, an e-mail drafted by the researcher was sent by the external party to the potential participants. This e-mail described, among other things, how the participant could enrol in the research (by sending an e-mail to the provided e-mail address of the researcher). This approach did not result in finding participants. The second approach consisted of approaching potential participants in the network of the researcher. This approach resulted in four participants.

The sample consists of first-time buyers who were looking for a house or just bought- or moved to a new-build dwelling. In the first case, participants were still in the decision-making process where the trade-offs take place, in the second case, all of the trade-offs have taken place and the participant lives in- or is about to move to their revealed choice.

After recruiting participants, the interview questions were developed (see appendix A). Two types of interviews were developed, one for the participants that were still looking for a house, and one for the participants that just bought or just moved into a new-build dwelling. Even though the interviews were inductive, the established checklist provided deductive preferences. Furthermore, inductive preferences that were not identified in the quantitative part of the study, were discussed in the interviews.

After the research participants were selected, the interviews were arranged. The interviews took place in April 2026. The interviews were conducted and recorded (all interviews were recorded via Teams). After having finished the interviews, the audio data were transformed into textual documents for the data to be analysed (see section 'data analysis'). The limited number of interviews allows for limited generalization.

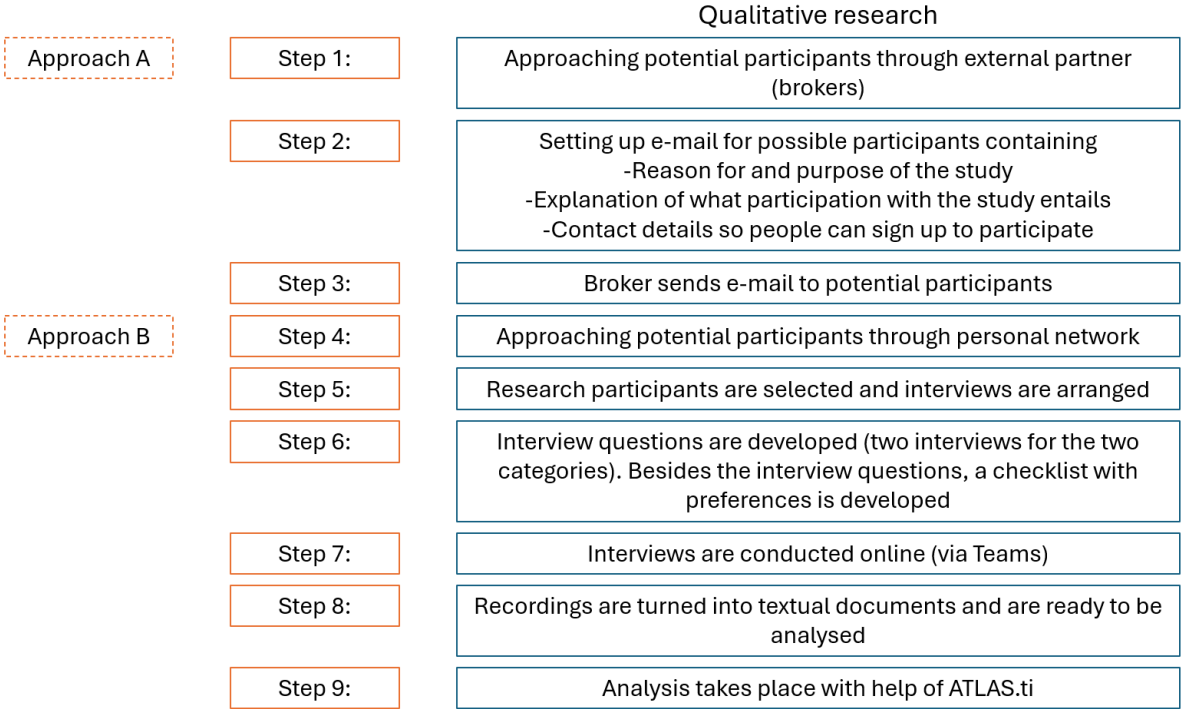


Figure 3.3 Data collection of the qualitative research (Own work, 2026)

3.3 Data analysis

Once the quantitative data regarding the focus group was collected, analysis took place. Since the data used for this research were secondary data, a selection of data was established based on the data required to answer the research questions (see the preferences in figure 3.2). The software used for the final analysis is SPSS. When necessary, new variables and categories were created. After establishing all needed variables, the data were used to run results. The resulting frequency tables and cross tables helped to find certain connections. All steps that were conducted, were saved in syntax files. These syntax files allowed for adjustments and repetition. Furthermore, outputs were used to create tables and figures for the report. These

visualisations were used to identify potential change in stated and revealed preference over the years, and to see to which extent stated and revealed preferences match (within the same year). This way, the visualisations helped building the narrative and helped answering the research questions. Syntax files and outputs were stored on the TU Delft OneDrive.

To analyse the qualitative data, the recorded interviews were transcribed into textual documents. Those documents were analysed using the ATLAS.ti tool. First, deductive codes were established. A lot of preferences were deductive codes, as predefined codes regarding the stated and revealed preferences could be identified from the literature review. Preferences identified in the interviews that were not discussed in the literature, were noted as open codes (see appendix E for the coding scheme).

A second goal of the interviews was to define the order in which trade-offs are made. This approach was inductive, as the (reasons for) trade-offs are dependent on the individual, and a pre-defined theoretic frame was not available. The order in which trade-offs are made tell something about the priorities the researched first-time buyers have.

3.4 Data management

First step in the data management was completing section A and B of the data management checklist. As the research involved processing data from humans (it involved third party datasets and interviews), the Human Research Ethics Committee (HREC) screened the research so risks were assessed. The application was provisionally approved, and revisions were submitted on 6 May (HREC application number: 6591). For the HREC application, a data management plan (DMP) was established and HREC checklist template was used. During the research, the FAIR Guiding Principles were used so the study is made as transparent as possible (Wilkinson et al., 2016). The data management plan includes elements that addresses the findability, accessibility, interoperability, and reusability.

The privacy of research participants of the quantitative part of the study is respected as use was made of anonymous datasets. Respondents of the WoON survey specifically gave informed consent to use their data for research purposes. This survey was conducted by CBS and was processed into an anonymous dataset. The used data were stored safely on the TU Delft OneDrive. As the data are from third parties, the datasets cannot be shared in a repository, but the established syntax files are easily reusable.

After the interviewees signed an informed consent form (appendix A), the interviews were recorded on Microsoft Teams since all the interviews took place online. These data were temporarily stored. Then, the data were transcribed into anonymous textual documents using Microsoft Word and was stored safely on the TU Delft OneDrive and the original audio file was deleted. The interview protocol and coding scheme are shared in the appendix of the thesis. This appendix is available (and findable) in the TU Delft Repository. The interview questions do not contain difficult language and are readable for individuals who are no expert on the studied topic. Because of accessibility and readability, the interview protocol and coding scheme are reusable.

All data used were either already anonymised or anonymised by the researcher. After this, the data were no longer personal data and could be used to answer the research questions. The data concern housing preferences of first-time buyers and the sequence in which they make

trade-offs when searching for a house or just bought a house in the new-build market. How data were collected and processed is explained in section 3.2 and 3.3. A more detailed overview of how data were managed, can be found in the DMP that is available in appendix F.

3.5 Research ethics

Different ethical dimensions required protection during the research. First of all, some research participants were never at risk, since use has been made of anonymous datasets. This means there has been no direct contact with respondents of these datasets. Because of this anonymisation, the data were no longer personal data, and the risk of the participant was reduced to the lowest level possible. This way, privacy of the respondents was protected, and well-being was not harmed.

Secondly, the personal data required for the interviews was very limited. Names, e-mail addresses, phone numbers and signatures were needed for the administrative processing and collecting written consent. Furthermore, the content of the interviews did not address sensitive topics, the setting of the interview was made as pleasant as possible for the interviewee (there was an option for doing the interview either online or in person), the participants were aware they could withdraw at any second and outcomes were anonymised. This way, risks of the qualitative part of the study were minimised.

The final results of the research contribute to knowledge about the preferences of the first-time buyer in the new-build market. Combination of the societal impact, the feasibility and the low-risk research justify the research approach. Data were handled confidentially, and the research was conducted following the ethical code of the TU Delft. This code of conduct was leading while designing the research.

3.6 Quality of the research

Two important concepts to address the quality of the research is the reliability and the validity of the research (Saunders et al., 2019). To ensure reliability of the research, different measures have been taken. For example, a lot of different preferences were identified in the studied literature, and have helped both identifying preferences in the quantitative datasets, as establishing a checklist for the qualitative interviews. These deductive codes were expanded with inductive codes that came up during the interviews. Another example is the use of a coding software (ATLAS.ti) to analyse the interviews. This software allowed for a certain consistency. The biggest risk concerning the reliability of the research might be in the observer bias while analysing the qualitative research data. Analysing interview data has a lot to do with the interpretation of the researcher, which might unintentionally lead to different results depending on the researcher.

To ensure validity of the research, it was determined in advance which parameters were studied, for the quantitative part of the research as well as for the qualitative part of the research. The parameters researched in the quantitative database were quite fixed. To ensure validity during the interviews, pre-determined interview questions were established. Furthermore, the checklist with deductive preferences helped maintaining validity. Nevertheless, conducting interviews was difficult since the researcher is dependent on the response of the interviewee. The biggest risk concerning validity might be the limited generalisability because of the small number of interview respondents.

4. Housing policy and its effect on construction

Aim of this chapter is to answer the first sub-question: *What policy changes can be recognised, and how do these affect supply in the new-build market?* This was done by describing developments in policy in recent history and how this has led to current situation in the housing market. The chapter discusses different levels of policy, elaborates on national policy and explains how these policy changes affect (or are expected to affect) the position of the first-time buyer. Finally, the current state of the housing stock and construction (as a result of policy change) is examined, and prospects for the future are discussed.

4.1 History of housing policy in the Netherlands

4.1.1 Development of housing policy over the years

To gain better understanding of current housing situation and housing policy, a short introduction considering housing policy is in order. Since introduction of the *woningwet* in 1901, governmental policies influence the way the built environment is shaped. Since the implementation of this act, the role of the government has adopted various degrees of active involvement. Policies and the need for active intervention are influenced by several factors, like housing need. In this chapter, only short part of history leading to current housing crisis and policy interventions will be discussed.

In the last forty years, responsibility and active role of the government in the housing market have fluctuated. As a result of the economic crisis (in the 80s-90s), a transition from a welfare state into a more economic driven society was initiated. This transition made the social welfare state became more individual, also affecting the arrangement of housing. In the 1990s decentralization of the government was initiated (Beekers, 2012). Responsibility of the government considering housing corporations changed considerably, when the social housing market became independent in 1995 (Langen & Blokker, 2025; van Deursen, 2023). Alongside to this, homeownership was stimulated. Different interventions, like the mortgage interest relief (*hypotheekrenteaftrek*), were used to steer the number of owner-occupied housing (Lejour, 2016).

After this period, focus was more on market forces, and the active role of the government declined. Beekers (2012) states '*Het paarse kabinet benaderde burgers als mondige en autonome individuen, die de kans moesten krijgen zich te ontplooiën.*', which was the starting point for a more market driven society. In 2010, the VROM was discontinued (*Besluit Opheffing Ministeries van Volkshuisvesting, Ruimtelijke Ordening En Milieubeheer [...] Instelling Ministerie van Infrastructuur En Milieu*, 2010). Furthermore, interference of the government regarding development of residential construction decreased. Market actors became steering actors in development. When the global financial crisis (2008-2013) hit the Dutch economy, housing prices declined and new construction stagnated (Boelhouwer, 2015; Mak, 2025). According to Mak (2025), part of current housing shortage is still a result of that crisis. During the crisis, governmental investments in housing declined as of 2009 (CBS, 2023). According to CBS (2023), the level of investment had still not reached the same level in 2022 as before the crisis. Although these numbers do not show (financial) interference of the government during the housing crisis, action had been taken and interventions included, among other things, the reduction of mortgage interest tax relieve in order to reduce the risk of debt for households (Lejour, 2016).

Current housing crisis is partly the result of the absence of a steering policy by the national government. As the housing shortage is large and leads to multiple problems in the housing market, the government is required to take on a leading role to solve this crisis. Therefore, the ministry of VROM returned. This ministry is among other things, responsible for steering new construction. The active role of this ministry can be identified in plans and in financial incentives (like the *Nationale Woon-en Bouwagenda*). These policies also include problems like the changing demographics and nitrogen crises, and plans are monitored to maintain progress. Involvement of the government is also recognizable in the increasing investments in the construction of housing. In 2024, governmental public expenditure amount to 217 million (preliminary figures, more than twice as much compared to 2022; CBS, 2025d).

4.1.2 Different levels of policy

Boelhouwer & Hoekstra (2012) describe different layers of institutions: Supranational layer (EU), national government (discussed in chapter 4.1.4), regional government (provincial) and local government (municipal). The distinct levels all are connected to each other, have certain core tasks and autonomy, and determine how the built environment in the Netherlands is structured. The article describes the Dutch housing market as '*heavily institutionalised*', and the complete bundle of policies might not be efficient as policies do not always align.

On a European level, Dutch construction is (indirect) influenced by environmental policies. Even though spatial planning is a matter for the national governments, directives like the *Wild Birds and Habitats directives* do impact construction in the Netherlands (Hobma & Jong, 2022). As EU power is limited, little attention will be given to this level of institution. However, an interesting development is The European affordable housing plan. As the increasing housing prices are a problem, in different countries in the EU, a policy is in development to steer this trend. The policy will focus on affordability, sustainability and quality (European Commission, n.d.).

The twelve provinces are responsible for spatial planning on a larger scale. The *omgevingswet* plays a key role in establishing the provincial environmental policy. In this environmental policy, three concepts play an important part: The *omgevingsvisie* (ambitions of the province on the long term), the *omgevingsprogramma* (how is the province to accomplish this) and the *omgevingsverordering* (legislation; *Informatiepunt Leefomgeving, n.d.*). These environmental policies influence multiple subjects, under which housing. The exact implementation of the policies may differ per province. Provinces also help municipalities, as they bring actors like area developers, housing corporations and developers together (Provincie Noord-Holland, n.d.; Provincie Zuid-Holland, n.d.).

Just as provinces, municipalities have a lot of autonomy. Hobma & Jong (2022) state that this level has the most power considering spatial planning, but limited power considering finances. Municipalities are responsible for the zoning plan and arrangements with actors on a smaller scale compared to provinces (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a). Municipalities play an important role in granting permits, and collaborate with non-governmental actors like developers and housing associations.

4.1.3 National policy

In this research, there is a focus on national policy, as considerable power returned to the national government since the reappearance of the ministry of VROM. The importance of regaining central control might become even more clear looking at different spatial needs.

Housing is not the only spatial challenge, as the Netherlands is also dealing with, among other things, an energy transition (de Jong, 2021).

Important documents for the government on national level are the ‘*Omgevingswet*’ and the ‘*Nota Ruimte*’. These documents steer the way the environment is shaped, and outline among other things the coordination of water, nature, economy, energy, housing, and proximity (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025a). Provinces and municipalities must comply with these documents as they develop their plans.

The *Omgevingswet* is recently introduced in the Netherlands (2024; Rijksoverheid, n.d.-a). This bundle of laws combines all sorts of legislation about how the environment is shaped. The *Nota Ruimte* also aligns with the *Omgevingswet*. The *Nota Ruimte* is a binding and future-oriented document, looking at 2050 as well as 2100. Zooming in on housing and development, it discusses challenges and ambitions. The document points out regions where large-scale housing development will take place (urbanisation areas), the interrelations between different layers of networks (for example, close relation to infrastructure and job opportunity) and explains its strategy to reach these goals (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025a).

4.2 Nationale Woon- en Bouwagenda

4.2.1 Content of the agenda and programme structure

Different bottlenecks in housing are identified. Some bottlenecks are very obvious in current housing crisis. For example, an increasing number of households and lagging construction puts pressure on availability. Because of small supply and large demand, affordability of housing is an issue. Also the percentage of income that people spend on housing is high. Some bottlenecks in housing are less obvious, like insufficient quality of housing. For example, a lot of people do not live in a house that suits them anymore (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a). The *Nationale Woon- en Bouwagenda* elaborates on all plans and interventions of the national government to tackle the previous mentioned bottlenecks.

The agenda addresses problems and solutions for the housing problems in the Netherlands. Causes for the problems that have arisen are demographic developments, shortage of government control, financial factors, lack of capacity, housing as part of a network of spatial challenges, social difficulties and slow sustainability pace. Table 4.1 shows how these diverse problems are attempted to be tackled by focussing on the aforementioned concepts of availability, affordability and quality (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a).

Availability	Affordability	Quality
Taking back control	Rent allowance	Liveability and safety
Stimulate fast construction	Rent prices	Protection renters and buyers
Faster procedures and removing of bottlenecks in legislation	Fiscal measures	

Table 4.1 Focus points of legislation regarding availability, affordability and quality (Translated and adopted from Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a)

Different strategies are discussed in the agenda that specifically focus on the position of the starter. A first strategy is to enable household mobility so elderly can make room for starters. This is in line with the way this type of market (*doorstroommarkt*) functions. A second strategy to realise 350,000 middle rent- and affordable ownership houses. This way, supply becomes bigger for this group. Building directly for demand looks more like a *statische markt*. Part of this strategy consists of arrangements with regions and the instruments like the *woningbouwimpuls*, which are used to accomplish the realisation of this affordable housing. Other strategies that influence chances of first-time buyers are implementation of the *opkoopbescherming*, and limiting the extent to which student debt determines the maximum amount of mortgage to the current debt. Lastly, transfer tax exemption for this group is addressed (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a). An instrument that is not addressed in the *Nationale Woon- en Bouwagenda* (or its programmes) is the implementation of the *Nationale Fonds Betaalbare Koopwoningen* (NFBK), which enables first-time buyers to purchase a new-build dwelling for a lower price than market value (Rijksoverheid, 2025).

The content of the agenda consists of six programmes. In the agenda and programmes, arrangements are made on different topics. In order to achieve these arrangements, the national government supports where possible, and uses financial instruments (like the *woningbouwimpuls*) and legislation (like the *omgevingswet*). Progress of the arrangements are monitored and published in different reports (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022a).

4.2.2 Content of the six programmes

In this paragraph there is a focus on the content of the six programmes. Aim of this section is not to summarise content of all the six programmes, but to highlight interventions of the government that (indirect) influence the position of the first-time buyer in the housing market.

Programme *Woningbouw* elaborates on the aim of building 100,000 houses a year (consisting of new construction, *flexwoningen*, and living space after transformation), describes the share of affordable housing (owner-occupied and rentals) and role of corporations in this large number of affordable housing. The programme describes four points of action: Taking back control, accelerating construction process, stimulating construction and pointing out large-scale construction sites. To achieve these points, different measures are taken, among others: Agreements (deals on performance and *woondeals*), legislation (*Omgevingswet*), financial incentives (such as the WBI) and monitoring and reporting (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022g).

The position of the first-time buyers increases as a result of this programme, as it emphasizes availability and affordability of housing in the new-build market.

Programme *Betaalbaar wonen* focuses on the alignment between housing expenses, suitable housing and the income of individuals. Points of action are creating more affordable housing, limiting high housing expenses and protection of buyers and renters. The document also highlights bettering the position of the first-time buyer. Important to notice is that there is a close connection between homeownership and rental market.

In the current situation, first-time buyers need an increasing amount of alternative funding alongside a mortgage to purchase a house. Furthermore, housing mobility of first-time buyers is limited because of limited availability, and high rents make the road to homeownership even harder. Therefore, the three points of action of these programmes are relevant for first-time buyers (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022d). Different measures are taken to realise the points of action, like fiscal measures (increased transfer tax), measures considering rent prices and measures considering rent allowance.

To conclude, the position of the first-time buyer is strengthened as result of this programme, as it emphasizes increasing availability and affordability of housing in the market.

Programme *Een thuis voor iedereen* is less relevant for the position of the first-time buyer. This programme is more focused on vulnerable groups in society. Only point of action relevant for the first-time buyer is the realisation of sufficient affordable housing, but this point of attention is much more clearly highlighted in the two programmes mentioned earlier (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022e).

To conclude, the position of the first-time buyer is not particularly influenced by this programme.

Programme *Wonen en zorg voor ouderen* elaborates on construction for elderly. Changing demographics emphasises importance of construction and suitable housing for this group. Construction for elderly stimulates housing mobility, and causes a domino-effect as one elderly person moving leads to 2.9 household removals. Although the name of this programme may not sound particularly relevant to the first-time buyer, the effects of these interventions do indeed have a significant indirect impact on the position of the first-time buyer. Focus point of this policy document is on accelerating construction and stimulating flow (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022f).

To conclude, the position of the first-time buyer is strengthened in a more indirect way. Building sufficient housing for elderly stimulates flow, which creates space for first-time buyers in the existing housing stock.

Programme *Versnelling verduurzaming gebouwde omgeving* is less relevant for the position of the first-time buyer. The programme elaborates more on environmental impact, climate agreements and effects of sustainability requirements on quality of housing. A measure that is relevant for the position of the first-time buyer is the connection between maximum mortgage and the energy label of the house to be purchased (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022b). This measure can have both advantages and disadvantages for first-time buyers, depending on the type of property they have purchased or will purchase. For a house with energy label A++++, a maximum of €40,000 euro's extra can be lend for purchasing a house (compared to a house with energy label E, F and G), while for a house

with energy label E, F, and G a maximum of €20,000 can be lend for energy saving measures (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, n.d.-a).

To conclude, whether the position of the first-time buyer improves as a result of this programme, is dependent on the quality of the house that is purchased. Furthermore, measures in this programme do not affect first-time buyers.

Programme *Leefbaarheid en veiligheid* is the last of the six programmes discussed in this section. Pressure on liveability and safety in the city increased over the years. The programme elaborates on how the built environment can be used to improve this situation. Improving quality of housing and stimulating mixed neighbourhoods are examples of measures that are addressed in the programme (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022c).

To conclude, the position of the first-time buyer in the housing market is not influenced because of this programme.

4.2.3 Instruments used that influence position of the first-time buyer

In this section, an overview is provided regarding instruments that influence availability and affordability. The instruments are explained in four of the six programmes of the *Nationale Woon- en Bouwprogramme*. The selection of instruments is based on the relevancy considering the first-time buyer. It is important to be aware that policy affecting the rental sector (not present in table 4.2) also has an impact on the owner-occupied housing market. Easing the pressure on the (social) rental market might lead to lower housing expenses, and might therefore influence wish of an individual to move to an owner-occupied house. Table 4.2 shows that by far most measures relevant for first-time buyers are discussed in programme *Woningbouw* and programme *Betaalbaar wonen*. Remarkable is that the trend of building smaller houses is no focus point of national policy in itself, which supports the argument that smaller housing is a consequence of the combination of focus on affordable housing and inner-city construction.

To stimulate availability, performance agreements (agreements considering the scale of new construction, share of affordable housing and share of social housing) with provinces are made. Those agreements play an important part in the development of the *Woondeals* made with the regions. In these deals, requirements per municipality become clear. Legal instruments like the *Omgevingswet* are used to steer development. To increase pace of procedures, different measures like the *Landelijke Versnellingstafel Woningbouw* (LVW) are developed. Financial incentives to build faster and more affordable are the WBI and flexpools. (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022g). An intervention that indirectly improves availability is stimulating the *doorstroom* by building suitable housing for elderly, as discussed in programme *Wonen en zorg voor ouderen* (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022f).

Performance agreements also include requirements considering affordability of the housing stock. Furthermore, other interventions are implemented to increase the position of the first-time buyer. Firstly, *opkoopbescherming* is introduced so affordable housing cannot be bought by investors. Secondly, transfer tax of the investor has increased compared to the doorstromers, while first-time buyers are excluded from requirement to pay transfer tax. Thirdly, higher box three taxes made real estate a less attractive option for investors, which

led sale of many (cheaper) rental properties, which are often options for first-time buyers (NOS, 2025). Another intervention regarding taxes is the abolishment of tax-free gifting for the purchase of a house. Other financial interventions are smart options like *KoopStart*, which allows lower purchase prices for first-time buyers, and the implementation of current student debt when applying for a mortgage (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022d).

A governmental intervention that influences affordability for first-time buyers is the connection between maximum loan capacity and energy label. As mentioned before, maximum mortgage can vary by tens of thousands of euro's depending on the energy label of the house. When a first-time buyer purchases an older house with low energy label, this intervention might negatively affect the affordability of this house.

Woningbouw	Betaalbaar wonen	Wonen en zorg voor ouderen	Versnelling verduurzaamde omgeving
Performance agreements (1)	Performance agreements (1)	Stimulating <i>doorstroming</i> by realising more- and suitable housing for this group (measures explained in <i>programme woningbouw</i>) (Combination of 1, 2 and 3)	Connection mortgage capacity and energy label (2)
<i>Woondeals</i> (1)	<i>Opkoopbescherming</i> (2)	Monitoring/reporting (5)	
Legal instruments (Omgevingswet) (2)	Increasing transfer tax for investors, exemption for first-time buyers (2)		
Stimulating pace of procedures (2)	Adjustment box 3 (2)		
Woningbouw impuls (WBI) (3)	Stimulating <i>KoopStart</i> , <i>KoopGarant</i> , <i>KoopSmarter</i> (3)		
Flexpools and <i>versnellingstafel (LVW)</i> (4)	Abolishment of tax-free gifting (2)		
Monitoring/ reporting (5)	Use of current study debt when applying for a mortgage (2)		
	Reporting in <i>Staat van de Volkshuisvesting</i> and yearly reporting considering aims (5)		
Type of measure: 1. Agreement 2. Legislation 3. Monetary incentive/subsidy 4. Sharing knowledge 5. Tracking progress			

Table 4.2 Measures taken by the government that affect position of the first-time buyer (derived from Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022g, 2022d, 2022f, 2022b)

4.3 Monitoring and Reporting: Policy influencing new construction

4.3.1 New policy currently affecting the (new construction) market

In this section, effects of policies considering availability, affordability and quality are outlined. How effects of new policy are showing, is reported by the government. Progress of programme *woningbouw* is monitored in *Landelijke Monitor Voorgang Woningbouw* (Groenemeijer, 2025). Aim of this report is to monitor realised construction, construction in progress and planned construction in all municipalities in the Netherlands. The document elaborates on plans and capacity on national-, *Woondeal* region-, and municipal level, and addresses future progress. The report states that 73% of houses as part of the agreements in the *Woondeals* are realised, are being realised or are part of a concrete plan (on 01-01-2025). In the *Woondeals*, agreements have been made to realise 930,400 houses in the period from 2022 to 2030. In practice, it appears that less construction has been taking place than was predicted. From 2022-2024, only 260,600 new builds are realised. The construction phase of 86,900 houses a year (average) is not enough to realise the aims of the government. This disappointing share of new builds is negative for the position of first-time buyers.

Another monitoring document is the *Staat van de Volkshuisvesting* (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025b). This monitor reviews more than just the overall progress until now, but monitors availability, affordability and quality. At first glance, quality may not seem to be related to supply, but a matching housing stock (which has to do with quality) effects *doorstroming* and therefore supply. For this reason, construction of social housing and housing for elderly is relevant to keep in mind. Even though policy steers on housing mobility for older people, the number of moved elderly people stayed almost the same (in period 2022-2025). Housing mobility has not increased, and no increasing number of houses in the existing stock became available for first-time buyers.

Looking at affordability, the number of households which are suffering from too high housing expenses decreased in the year 2025 (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2025b). Even though this decline has only been occurring for two years, which makes it difficult to state whether this development could be seen as a trend, it is a change in favour of the first-time buyer.

A decreasing trend in affordable housing is recognizable in the period from 2022-2025. This has partly to do with the fact that the affordability used to correspond with a maximum price of the NHG limit (until 2023). As housing prices were rising, and with that the NHG limit, it was decided that affordability is no longer the same maximum price of the NHG limit. Second reason was the absence of indexation of the affordability limit. A decreased affordability is a disadvantage for first-time buyers.

Different monitors of NVM provide information on the housing- and (new) construction market. NVM (2025a) also elaborates on quality, as it provides insight into the match between demand and housing characteristics of new construction. First conclusion is that housing prices in the general housing market are still rising, although the rate of this increase is slowing down (NVM, 2025d). Furthermore, it is stated that the number of sold new construction after years of increased sales is stabilising (NVM, 2025a). The last trend is a disadvantage for the first-time buyer, while a slowdown in the rise of housing prices can be seen as an advantage. Furthermore, the monitor reflects on the division of building typologies. A decrease in realised semi-detached houses, terraced houses, detached houses and corner houses can be

identified, while there has been a significant increase in the construction of apartments. Other trends are the decrease in housing surfaces while the prices of new properties are rising. Also, the decrease of outside space of apartments and ground-based houses is a trend. The trend of building smaller is in favour of the first-time buyer. NVM (2025a) notices a change to a startersmarket in the new-build market, as apartments fit the category first-time buyers better than the category *doorstromers*.

4.3.2 Expectations for the future

Policy documents provide requirements and direction for the new-build market. However, there is a difference between plans or wishes and outcomes because various external factors (for example environmental or economic factors) influence the pace of new construction. As national policies have recently been introduced, it is quite possible that their effects will become more apparent later. Nevertheless, this section attempts to describe predictions for the future, because policy is, after all, also future-oriented.

Different monitors are available at provincial, region and municipal levels. Also on national level different monitors are available. The *Nationale Woningbouwkaart* is an example of such monitor. Some results of this monitor are shown in figure 4.1. The monitor gives an overview of all different plans provinces and municipalities have (ABF Research, 2025). The monitor predicts a large share of multi-family houses, but the typology of more than one-third of the total construction has to be determined. Looking at pricing range, predictions are that 49% will be affordable, but to achieve two-thirds affordable housing, a significant number of undetermined housing has to be affordable.

Groenemeijer (2025) recalls that the share of affordable housing will be 68% (corresponding with the requirements in programme *Betaalbaar wonen*). 18% of this number will be owner-occupied, and thus available for first-time buyers. Most of construction will be inner-city construction (two-thirds), and 70% of total construction will be apartments. This might be a trend in favour of the first-time buyer. Faessen et al. (2025) used scenarios to predict situation of the Dutch housing market between 2025 and 2040 in the *ABF Woningmarktverkenning 2025-2040*. For new construction, the preference for affordable housing (rentals and owner-occupied) will continue to be high until 2039. Even though programme *Betaalbaar wonen* describes the wish of 68% affordable, research by Faessen et al. (2025) expects this to be 60% (middle scenario). This lower number of affordable housing would be a disadvantage for the first-time buyer. Other findings show that new construction will mostly take place in the living environment 'city centre'. Also in 'centre-plus' a lot of new construction will take place. As research by Hoefnagel (2011) stated that first-time buyers prefer to live in the city centre, this might be in favour of this group.

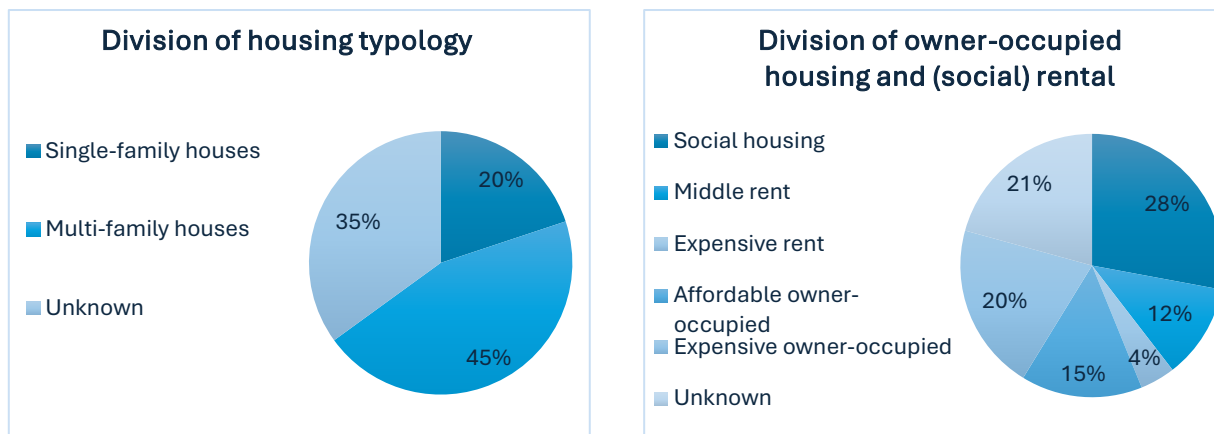


Figure 4.1 Division of plan capacity regarding housing typology and ownership type according to the Nationale Woningbouwkaart in autumn 2025 (derived from ABF Research, 2025)

4.4 Conclusion

Aim of this chapter is to answer the first sub-question ‘*What policy changes can be recognised, and how do these affect supply in the new-build market?*’. This chapter found that policy change is the answer to the societal desire to tackle the housing crisis. This responsibility required the national government to take back control on the housing production. After years of being absent, the current stagnation in the housing market asked for a more present leadership and steering policy. Central government therefore puts the *Nationale Wouwen Bouwagenda* forward as steering document with six programmes. For the first-time buyers, not all of these programmes are equally relevant. Some of the programmes directly influence the position of the first-time buyer (like programme *betaalbaar wonen*), while others do this in a more indirect way (like programme *Wonen en zorg voor ouderen*). The agenda focuses on the concepts/objectives of availability, affordability and quality.

Evaluating affordability, there is a positive outlook. Even though housing prices are still rising, the number of people who are struggling with their housing expenses is decreasing. Furthermore, the construction of many apartments and the trend of building smaller are changes in housing characteristics that are in favour of the first-time buyer.

Evaluating availability, outlook is more disappointing because of new-build numbers are lagging. Also household mobility as a result of the new policy is limited, which limits availability for first-time buyers in the existing stock. Both limited availability and limited *doorstroom* are disadvantageous for the position of the first-time buyer. However, the increasing supply of new construction in city centres matches the wish of the first-time buyer and leads to increased availability for first-time buyers at this location.

To which extend these new policies lead to a better fit between supply and demand from first-time buyers, and if these policies lead to making less trade-offs will be researched in chapter five and six. Finally, it is important to keep in mind that changes in supply might become more apparent in the future, as the policy programmes have been put forward quite recently.

5. Quantitative analysis of stated and revealed preferences of first-time buyers

This chapter consists of quantitative analyses of stated and revealed preferences present in the WoON 2021 and the WoON 2024 datasets. Aim of this chapter is to answer the second and third sub-questions, which read as follows: *What are the stated preferences of first-time buyers in the new-build market, and have those preferences changed over time?* And *How do revealed preferences of first-time buyers show in the new-build market, and have those preferences changed over time?* First, the introduction provides information into general developments identified in the WoON surveys, and how preferences of the first-time buyers differ from other groups. Then, the stated and revealed preferences within the same year (both for the WoON 2021 and WoON 2024) are compared, to examine how these preferences are reflected in the newly built housing market and whether the differences indicate a mismatch. Last analyses consider developments of stated preferences over time. The chapter ends with a conclusion.

5.1 Introduction

5.1.1 Developments present in the WoON surveys

Part of the two sub-questions addresses change over time. As the WoON surveys are periodically repeated, the resulting datasets allow for studying such change. To identify general trends, different preferences present in the WoON 2021 and WoON 2024 are identified and compared. The stated preference was defined as the preference of a first-time buyer that has the wish to move to a newly built house, while the revealed preference was defined as the eventual choice of a first-time buyer that recently moved to a new or existing house. Evaluating those general developments, some preferences seem to act more consistent over the years, while other preferences seem to show clearer differences. For a comparison of the overall preferences of individuals, all cases present in the dataset are included.

At first glance, percentages present in frequency tables show that there is almost no difference in the WoON 2021 and WoON 2024 regarding the number of people who live in a rental or owner-occupied house and the number of individuals who live in a new-build dwelling after moving. Some developments seem to be present in the expected sale price of the house. In 2024, the more individuals expect their house to be sold for a higher sale price compared to 2021. This can be explained based on the rising housing prices over the years, or based on adjusted expectations as a result of the heated housing market.

The aim of this research is to improve knowledge considering developments in the new-build market. Even though it seems that not many changing developments are present in general, it is not known if- and how developments specifically show in the new-build market. Therefore, focus of the analyses will be on new construction. This is done by only selecting cases of people who recently moved (revealed situation after moving) or have the wish to live in a new-build dwelling (stated situation before moving). Second focus will be on the first-time buyer. Four different household groups were defined by ownership and age. These groups consider buyers, renters, individuals who are older than 35 years and individuals who are younger than 35 years old. Since focus is on the first-time buyer, only cases including individuals that are younger than 35 years old, have entered homeownership or have the wish to enter homeownership, were selected. More about this group and how it differs from other categories will be explained in 5.1.2.

The order of analyses is visualised in figure 5.1. First, differences between stated and revealed preferences within the same year are explained, so possible (mis)matches between these preferences can be identified. When it appears that less mismatches are present in the WoON 2024 compared to the WoON 2021, this could indicate that demand and supply are better aligned in 2024. The last analyses consider differences of stated and revealed preferences between years. Second analysis allow for understanding how the wishes of individuals changed over time.

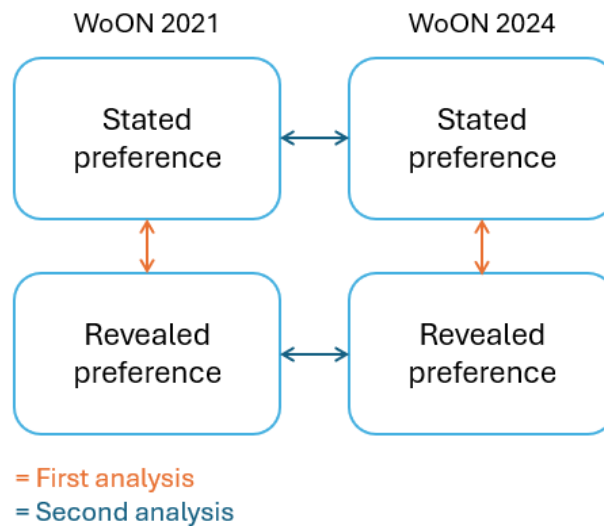


Figure 5.1 Order of analyses (own work, 2026)

5.1.2 Preferences of first-time buyers in the WoON surveys

As stated before, focus of this study is on the first-time buyer in the new-build market. To provide insight into the (mis)matches between preferences within the same year or into differences between preferences over time, it is necessary to elaborate on the relation between the variable regarding ownership and age and the variables (preferences) and categories that are studied. This is researched on the basis of the chi-squared test (in unweighted situation). The consistent categories studied are 'first-time buyer <35 years', 'starter tenant <35 years', 'buyer >35 years' and 'tenant >35 years'.

Even though results of the literature review show varying outcomes in terms of a preference for buying or renting, the WoON 2021 and WoON 2024 indicate that, in general, most starters (<35 years old) live in a rented property (CBS, 2022, 2025c; DNB, 2023; Hoefnagel, 2011). From all the cases included in the datasets, it can be concluded that more than half the first-time buyers are not willing to move (53.0% in the WoON 2021 compared to 54.3% in the WoON 2024, unweighted situation). For both survey years, the willingness to move is smaller for renters younger than 35 years old, while older owners and renters have a bigger wish to move. A notable observation in both the datasets is that the vast majority of the first-time buyers lives with a partner (79.0% in the WoON 2021 and 76.2% in the WoON 2024, unweighted situation). For both survey years, the number of single individuals is actually much larger analysing tenants in that age group. Also the group of older buyers shows that more respondents live with a partner. It can be concluded that multi-person households own a house more often. In the WoON 2021, only 2,570 cases of the total number of 37,134 cases are homeowners who are younger than 35 years old. A similar ratio is present in the WoON 2024 data. In this

database, 2,227 cases of a number of 35,948 cases are first-time buyers (total number of respondents in the WoON 2024 is 41,295). It can be concluded that the group first-time buyers consists of a relatively small number of respondents. Of the four groups, it can be concluded that most individuals have no (stated) preference for new construction in both the WoON 2021 and the WoON 2024 database.

The four categories are compared to different variables considering living environment, like municipality size, and to different variables considering housing characteristics, like number of rooms, in the new-build market. Tables 5.1 and 5.2 show the variables where a significant correlation is found. The tables show significance regarding different variables and the four household groups. It turns out that, when more than five individuals per cell are present in the resulting tables, a significant correlation between the preference and the four categories (CBS, 2022, 2025c).

Looking at the residuals, some general conclusions regarding the stated preferences of the categories 'first-time buyer <35 years', 'starter tenant <35 years', 'buyer >35 years' and 'tenant >35 years' can be drawn. For example, in the WoON 2021 younger people (buyers and tenants) have a bigger wish to live in a large city than expected, compared to older people (CBS, 2022). Another conclusion that can be drawn is that tenants have a larger wish for apartments than expected, while buyers have a much smaller wish than expected. The wish for semi-detached houses is larger than expected for buyers, and in fact, much smaller for tenants. Looking at the desired purchase price, the wish for higher price ranges is clearly higher than expected for the older buyers, while the wish for lower purchase prices is bigger for the younger buyers (except for the category less than €150,000). In the WoON 2024, only younger tenants have a bigger wish to live in a large city. Similar results are present in the WoON 2024 regarding the housing typology and price range (CBS, 2022, 2025c).

Similarly to the stated situation, some general conclusions can be drawn from the WoON 2021 analysis, considering revealed preferences. For example, looking at new construction, first-time buyers and older tenants live more often in new construction after moving than expected (CBS, 2022). Another remarkable conclusion is that, after moving, buyers are much less likely to live in an apartment than expected. Tenants, on the other hand, are much more likely to do so. Looking at housing prices (expected sale prices), first-time buyers are less likely to live in houses in the most expensive price ranges than expected, and more often in the lower price categories after moving. For elder buyers, this is exactly the other way around. In WoON 2024, only elder buyers live more often in new construction after moving than expected. The situation considering buyers and their revealed preference for apartments is quite similar. Looking at house prices, first-time buyers are less likely than expected to live in a house belonging to the lowest or highest price range, and more likely to live in a house belonging to categories in between. For elder buyers, this is exactly the other way around (CBS, 2022, 2025c).

These examples show how stated and revealed preferences differ between different age groups and types of ownership. From now on, focus will be on the first-time buyer, and the preferences of this group will be highlighted.

Stated preference	WoON 2021	WoON 2024
Municipality size	($\chi^2(12) = 253.867, p < 0.001$)	($\chi^2(15) = 77.997, p < 0.001$)
Type of living environment	($\chi^2(12) = 253.867, p < 0.001$)	-
Typology	($\chi^2(12) = 1312.897, p < 0.001$)	($\chi^2(12) = 1287.288, p < 0.001$)
Number of rooms	($\chi^2(15) = 1166.394, p < 0.001$)	($\chi^2(15) = 1049.284, p < 0.001$)
Study	-	($\chi^2(3) = 305.388, p < 0.001$)
Garden	($\chi^2(6) = 198.102, p < 0.001$)	($\chi^2(6) = 148.346, p < 0.001$)
Garage or carport	-	($\chi^2(9) = 786.327, p < 0.001$)
Parking	-	($\chi^2(9) = 169.255, p < 0.001$)
Price range	($\chi^2(6) = 219.325, p < 0.001$)	($\chi^2(6) = 303.510, p < 0.001$)

Table 5.1 Results of the chi-squared test regarding stated preferences of first-time buyers in the new-build market and the four household groups (CBS, 2022, 2025c)

Revealed preference	WoON 2021	WoON 2024
Degree of urbanisation	($\chi^2(12) = 563.372, p < 0.001$)	($\chi^2(12) = 409.207, p < 0.001$)
Type of living environment	($\chi^2(12) = 662.504, p < 0.001$)	-
New build	($\chi^2(3) = 66.552, p < 0.001$)	($\chi^2(3) = 73.919, p < 0.001$)
Typology	($\chi^2(12) = 1766.264, p < 0.001$)	($\chi^2(15) = 1512.993, p < 0.001$)
Number of rooms	($\chi^2(12) = 1538.605, p < 0.001$)	($\chi^2(12) = 1088.003, p < 0.001$)
Study	-	($\chi^2(3) = 261.875, p < 0.001$)
Outside space	($\chi^2(9) = 1472.932, p < 0.001$)	($\chi^2(9) = 1053.569, p < 0.001$)
Garage or carport	($\chi^2(3) = 847.087, p < 0.001$)	($\chi^2(3) = 536.753, p < 0.001$)
Parking	($\chi^2(6) = 275.663, p < 0.001$)	($\chi^2(6) = 195.355, p < 0.001$)
Price range	($\chi^2(6) = 173.886, p < 0.001$)	($\chi^2(6) = 167.403, p < 0.001$)

Table 5.2 Results of the chi-squared test regarding revealed preferences of first-time buyers in the new-build after moving and the four household groups (CBS, 2022, 2025c)

5.2 Differences between stated and revealed preferences

5.2.1 Comparison of stated and revealed preferences in the WoON 2021

To research the area of tension between the stated and revealed preferences of first-time buyers, different preferences were studied that are present in the stated situation as well as in the revealed situation in the WoON 2021 dataset. This comes down to six parameters considering the living environment or housing characteristics, as shown in table 5.3. Parameters regarding the living environment are the municipality size and the type of living environment. Parameters regarding the housing characteristics are housing typology, number of rooms, presence of garden and the price range. In this section, the stated and revealed situation is compared, so the (mis)match between supply and demand in 2021 can be studied. A mismatch is defined as a preference where the revealed situation shows a lower percentage than the stated situation. This means less individuals who prefer a certain characteristic, own this characteristic after moving. When the percentage in the stated situation is higher than the revealed situation, also a mismatch is present, but all individuals who have a wish for that characteristic, owns the characteristic after moving. It is assumed that the only way to solve this mismatch is to increase supply that aligns with the stated preference.

Comparable stated and revealed preferences identified in WoON 2021
Municipality size
Type of living environment
Housing typology
Number of rooms
Garden
Price range

Table 5.3 Preferences that allow for comparison in the WoON 2021 (Own work, 2026)

A first important point to note is that the overall preferences of first-time buyers are compared to the situation where first-time buyers have a preference for new construction. At first glance, there seems to be limited difference between these two situations. This is why the decision was made to focus on results of first-time buyers that have a preference for new construction (stated preference) and on the results of first-time buyers who have recently moved to an existing or new-build dwelling (revealed preference). Results of the overall preferences of first-time buyers present in the WoON 2021 are presented in appendix B. A second important point to note is that absolute numbers of respondents may vary to a relatively large extent. This might have to do with multiple reasons, like the smaller number of individuals that actually have moved compared to the number of individuals that indicated to have a wish to move. Also, the wording of the questions in the surveys could play a part in the different numbers.

First comparison is visualised in table 5.4 and considers the living environment. Looking at the preference 'municipality size', it is important to keep in mind that two different variables are compared. These variables are 'size of the living environment' and 'degree of urbanisation'. The different variables also explain the significant difference between the absolute number of individuals. Although the two concepts are not exactly the same, their similarities allow for comparison.

Differences in the categories 'medium city/highly urban' and 'large city/very urban' are in percentage terms the largest. A much smaller difference is present in the other three categories. Also in relative terms, these differences are the largest. Only the percentages of 'small village/not urban' and 'small city/moderately urban' are slightly smaller in the revealed situation compared to the stated situation, which results in a limited mismatch for these preferences. The difference between stated and revealed preference is significant ($\chi^{2(5)} = 319.975, p < 0.01$; CBS, 2022).

Second comparison regarding the living environment is the 'type of living environment'. The categories 'suburban' and 'village centre' are most popular. In percentage terms, the biggest differences are present looking at the categories 'city centre', 'suburban' and 'village centre'. In relative terms, the differences are big for 'city centre', 'village centre' and 'rural living'. It can be concluded that demand and supply regarding living environment does not match considering at least three of the five categories, even though the difference considering 'green urban' is very limited. The difference between stated and revealed preference is significant ($\chi^{2(4)} = 17.413, p < 0.01$; CBS (2022)).

Remarkable is that research by Hoefnagel (2011) identifies a preference for 'city centre' in Utrecht. It can be concluded that this result differs from results from this study regarding preferences of first-time buyers in the new construction market, as the stated and revealed preference is relatively small for the category 'city centre'. However, results are context dependent, and the study of Hoefnagel (2011) also includes starters who have a preference

for a rental property. Also the study of Maaskant (2024) indicates a preference to live in the city centre or sub-urban. From the WoON2021 analysis it can be concluded that biggest share of first-time buyers has the preference to live in or near the city (47.2%), while in the new-build market, it seems that more individuals have a preference for the categories 'green urban', 'village centre' and 'rural living' (52.7%). It seems that individuals who have a preference for new construction, have the wish to live more outside of the city. Furthermore, demand to live in the village centre is relatively large. This wish does not correspond with expected new construction (Faessen et al., 2025).

Municipality size	Stated preference	Difference	Revealed preference
Small village/not urban	6.6%	1.0%	5.6%
Large village/not very urban	17.7%	2.3%	20.0%
Small city/moderately urban	14.9%	1.5%	13.4%
Medium city/highly urban	12.4%	19.2%	31.6%
Large city/very highly urban	14.7%	14.8%	29.5%
No preference/no opinion	33.6%	-	-
Total	100.0%	-	100.0%
Total	38,733	-	198,809
Type of living environment			
City centre	10.1%	4.1%	6.0%
Suburban	37.1%	4.2%	41.3%
Green urban	14.8%	0.6%	14.2%
Village centre	24.8%	4.1%	28.9%
Rural living	13.2%	3.5%	9.7%
Total	100.0%	-	100%
Total	291,418		198,809

Table 5.4 Stated and revealed preference of first-time buyers considering living environment in the WoON 2021 (CBS, 2022)

Looking at housing characteristics, table 5.5 shows the studied preferences 'housing typology' and 'number of rooms'. In the literature, it was found that first-time buyers consider characteristics of the house as more important than characteristics of the environment (Besselink, 2015). The table shows that most first-time buyers have a wish for an apartment or terraced house. In percentage terms, difference is big for the categories 'detached house', 'corner house', 'terraced house and other' and 'apartment'. Also in relative terms, these differences are large. It can be concluded that demand and supply regarding housing typology does not match considering at least three of the five categories, and that difference between stated and revealed preference is significant ($\chi^{2(4)} = 67.915, p < 0.01$; CBS, 2022). However, the difference between stated and revealed situation for semi-detached houses is limited. A notable difference is present comparing these results with the research of Veerhoek (2024). In this study, most individuals have a stated wish for detached dwellings, followed by a wish for corner dwellings and semi-detached dwellings. In the new-build market, it turns out most

individuals have a wish for an apartment, terraced house and detached house. It appears that the preference for the typology apartment is larger in the new-build market, both in stated as revealed situation, compared to the context of the Randstad. Also findings of Maaskant (2024) differ from the obtained results. This study indicates that most first-time buyers prefer terraced houses, followed by the preference for apartments.

The studied preference for a certain number of rooms indicates that first-time buyers have the largest preference for three, four or five rooms. In percentage terms, large differences are present for the categories '3 rooms' and '6+ rooms'. In relative terms, also the difference of the category '1-2 rooms' is large. It can be concluded that in revealed situation almost two-thirds live in a house with three to five rooms and that a mismatch is present for at least one category. The difference between stated and revealed preference is significant ($\chi^{2(5)} = 105.671, p < 0.01$; CBS, 2022).

Housing typology	Stated preference	Difference	Revealed preference
Detached house	14.8%	6.8%	8.0%
Semi-detached house	14.2%	0.7%	13.5%
Corner house	8.6%	7.7%	16.3%
Terraced house and other	28.9%	4.9%	33.8%
Apartment	33.4%	5.0%	28.4%
Total	100.0%	-	100.0%
Total	283,484		198,809
Number of rooms			
1-2 rooms	6.7%	1.5%	8.2%
3 rooms	27.8%	7.6%	20.2%
4 rooms	25.2%	2.5%	27.7%
5 rooms	22.6%	3.2%	25.8%
6+ rooms	11.5%	6.6%	18.1%
No preference / no opinion	6.2%	-	-
Total	100.0%	-	100.0%
Total	291,419		198,807

Table 5.5 Stated and revealed preference considering preference housing typology and number of rooms in the WoON 2021 (CBS, 2022)

For the analysis regarding the preference for a garden, the categories 'garden' and 'garden and balcony' are added up. The presence of a balcony is left out. Figure 5.2 shows that the number of percentages that indicated 'yes' or 'no' in the stated situation is almost equal. The differences for both categories are large, as well in percentage terms as in relative terms. It can be concluded that demand and supply regarding the preference for a garden does not match. The difference between stated and revealed preference is significant ($\chi^{2(2)} = 661.774, p < 0.01$; CBS, 2022).

The large number of individuals that do not prefer a house with a garden is contradictory compared to results of Hoefnagel (2011) and Veerhoek (2024). From these studies, it can be concluded that outside space and a garden is important for the first-time buyer. A similar discrepancy between the empirical findings and results of the quantitative analysis of the WoON 2024 was found (see section 5.2.3).

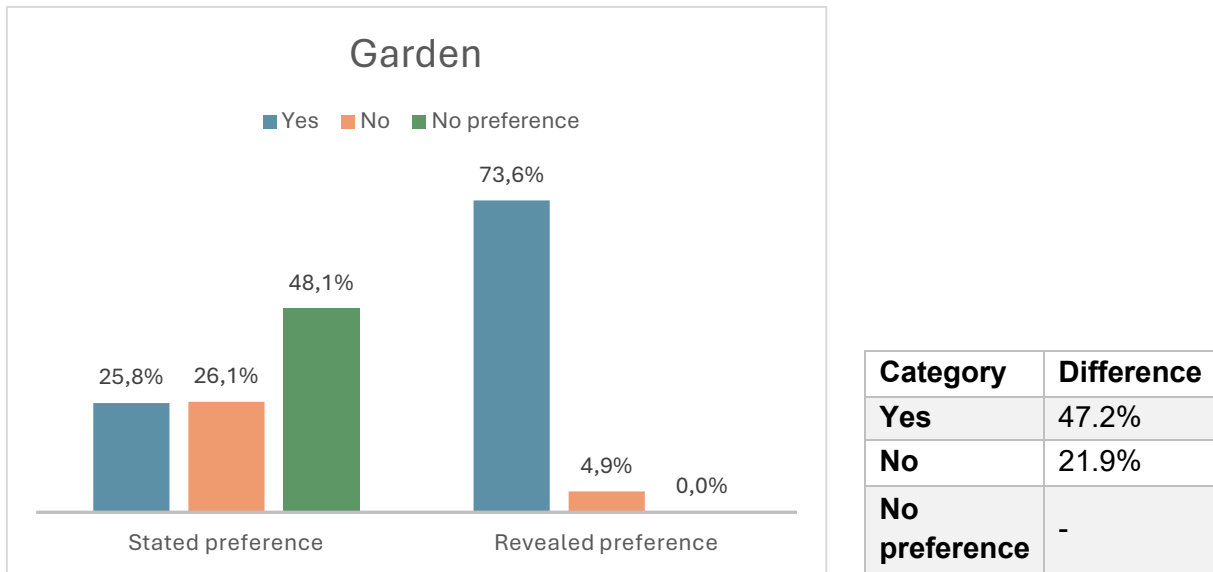


Figure 5.2 Difference between stated and revealed preference of first-time buyers considering presence of a garden (CBS, 2022, 2025c)

The last analysis concerns the preference for a certain price range and is visualised in table 5.6. In percentage terms, the differences are not that large. The largest differences are visible in the categories '€400,000-€499,999', '€150,000-€199,999' and '€200,000-€249,999'. In relative terms, differences are large for the categories '<€150,000', '€150,000-€199,999', '€400,000-€499,999' and '>500,000'. It can be concluded that supply of housing matches demand from the first-time buyer quite well regarding the price range. A small mismatch is visible in at least four categories. The difference between stated and revealed preference is not significant ($\chi^2(6) = 6.841, p = 0.34$).

The match between price range and financial possibilities of the first-time buyer can be seen as one of the most important factors that influences opportunities of the starter in the housing market (Besselink, 2015; Hoefnagel, 2011; Maaskant, 2024; Veerhoek, 2024). Study of Veerhoek (2024) shows that 48% of the first-time buyers has a preference for a house priced lower than €300,000, while in the new-built market 55.1% has preference for a house priced lower than €300,000. It seems that, from the results obtained from the WoON 2021, more people were searching for a cheaper house compared to the individuals studied by Veerhoek (2024). Research by Maaskant (2024) shows that 35% of first-time buyers has a preference for a house priced lower than €249,999, while in the new-built market 37.1% has a preference for this category. This percentage is quite similar. Also studies of Hoefnagel (2011) and Besselink (2015) draw conclusions considering (revealed) preference, but as these studies are quite outdated, these results are not relevant anymore. Although the difference between stated and revealed situation is insignificant for the analysis of the WoON 2021, this difference is significant for the WoON 2024 analysis (see section 5.2.3).

Price range	Stated preference	Difference	Revealed preference
<€150,000	4.2%	0.7%	3.5%
€150,000-€199,999	12.8%	2.4%	10.4%
€200,000-€249,999	20.1%	2.3%	17.8%
€250,000-€299,999	18.0%	0.8%	17.2%
€300,000-€399,999	24.4%	1.6%	26.0%
€400,000-€499,999	11.3%	2.5%	13.8%
≥€500,000	9.3%	2.0%	11.3%
Total	100.0%	-	100.0%
Total	291,418		198,810

Table 5.6 Stated and revealed preference considering price range in the WoON 2021 (CBS, 2022)

A remarkable difference compared to overall wishes of first-time buyers in the WoON 2021, and the obtained results regarding the new-built market is that almost all differences between stated and revealed preferences are significant in the new-built market. Research by Maaskant (2024) reveals that differences between stated and revealed preferences of first-time buyers in the overall market are much more limited (after analysis of WoON 2021). This suggests that the match between supply and demand is better in the existing market compared to demand and supply in the new-built market.

5.2.2 Comparison of stated and revealed preferences in the WoON 2024

To research the discrepancy between the stated and revealed preferences of first-time buyers present in the WoON 2024, a similar approach is used as in the previous section. Again, a selection was made from the general preferences of first-time buyers, so only focus will be on first-time buyers that wish to live in a newly built dwelling and recently moved to an existing or newly built dwelling. Results of the general preferences of first-time buyers are present in appendix C. In addition to a simple comparison, this section also discusses the relation between expected supply resulting from policy changes and preferences of first-time buyers. It was decided only to include this for the analysis of WoON 2024, since policy changes (and its results) are recent, and these data are most recent.

Table 5.7 shows the eight parameters have been identified. The parameter studied considering the living environment is the municipality size. The parameters studied considering the housing characteristics are housing typology, number of rooms, presence of a study, presence of a garden, presence of garage or carport and preference for a certain price range. Just as for the previous section, the stated and revealed situation will be compared, so the area of tension and matching supply and demand in 2024 can be studied.

Comparable stated and revealed preferences identified in WoON 2024
Municipality size
Housing typology
Number of rooms
Study
Garden
Garage or carport
Parking space
Price range

Table 5.7 Identified preferences in WoON 2024 (Own work, 2026)

Results of the first parameter analysed concern the living environment of the first-time buyer and are visualised in table 5.8. Just as for the WoON 2021 analysis, the 'size of the living environment' and 'degree of urbanisation' are compared. The different variables explain again the significant difference between the total number of stated and revealed preferences. First remarkable result in percentage terms is that the difference for the categories 'medium city/highly urban', and 'large city/very highly urban' is large. Also in relative terms, these differences are large, especially compared to the other three categories. The differences can be explained on the basis of the substantial percentage 'no preference/no opinion' in the stated situation. We can conclude that there are two limited mismatches considering 'large village/not very urban' and 'small city/moderately urban'. The difference between stated and revealed situation is significant ($\chi^{2(5)} = 270.786, p < 0.01; CBS 2025c$).

Municipality size	Stated preference	Difference	Revealed preference
Small village/not urban	5.6%	-	5.6%
Large village/not very urban	20.9%	2.7%	18.2%
Small city/moderately urban	17.5%	0.1%	17.4%
Medium city/highly urban	17.2%	11.5%	28.7%
Large city/very highly urban	10.9%	19.1%	30.0%
No preference/no opinion	27.9%	-	-
Total	100.0%	-	100.0%
Total	66,691		202,154

Table 5.8 Stated and revealed preference considering living environment in the WoON 2024 (CBS, 2025c)

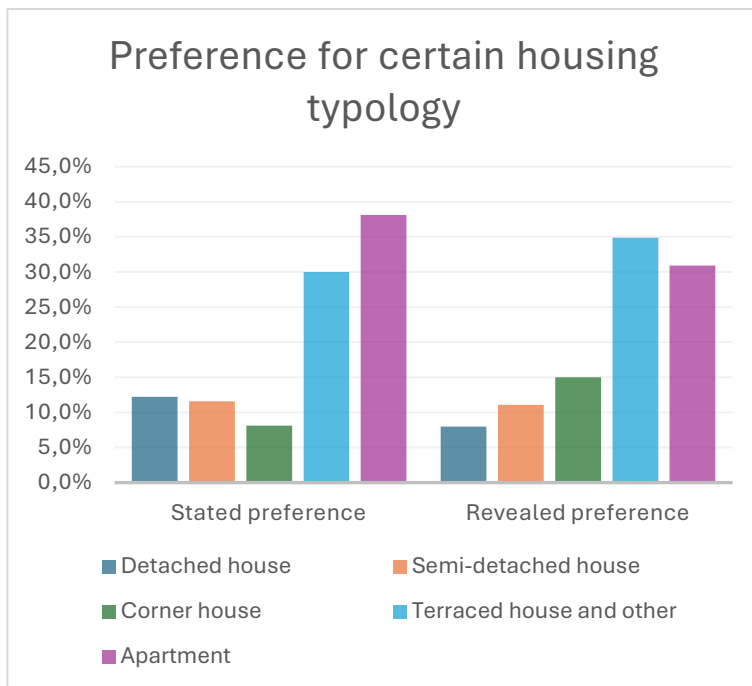
The second group of preferences analysed concerns housing characteristics and is visualised in figure 5.3, 5.4, and 5.5. For the variable 'preference for a certain typology', different mismatches are identified. In percentage terms, the differences between 'apartment', 'corner house' and 'terraced house and other' are the biggest. In relative terms, these differences are big, just as the difference present considering the category 'detached house'. It can be concluded that there is a (slight) mismatch between at least three categories. The difference between stated and revealed situation is significant ($\chi^{2(4)} = 45.031, p < 0.01; CBS 2025c$).

Looking at realised typologies in the past few years, the popular, stated preference considering apartments corresponds with the considerable number of new construction considering this typology (NVM, 2025b). In contrast, supply of other popular typologies in the new-build market, like terraced houses, is much smaller. Supply of the third most popular typology (detached house) is in fact minimal.

A remarkable difference is present comparing this WoON analysis with the research by Veerhoek (2024). In general context in the Randstad, most individuals have the stated preference for detached dwellings followed by corner dwelling and semi-detached dwelling. Consistent with the results of the WoON 2021 analysis, analysis of this study shows that most individuals have a wish for an apartment, terraced house and detached house in the new-build market. It appears results differ from empirical findings, and that the preference for the typology apartment is bigger in the new-build market, compared to the context of the Randstad.

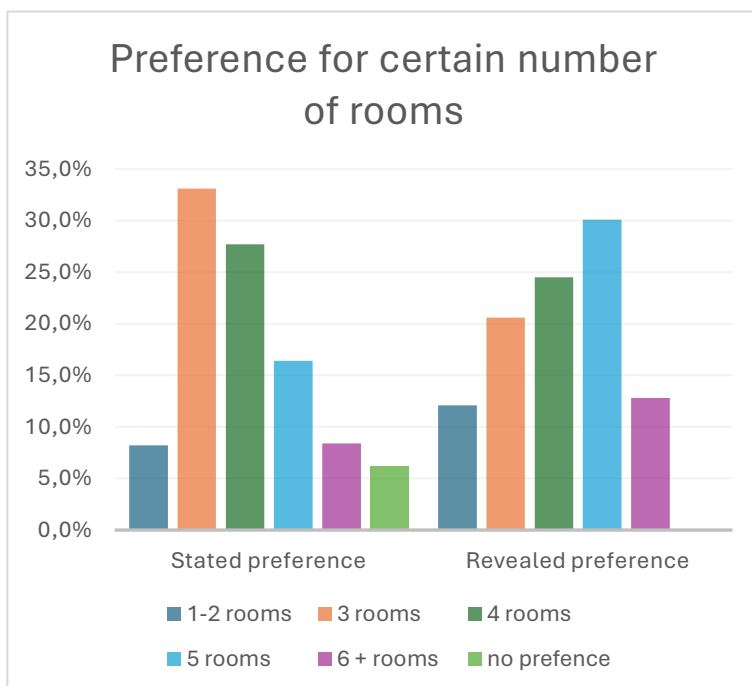
Looking at the preferred number of rooms, clear differences can be identified comparing stated and revealed preferences. In percentage terms, differences regarding the categories '3 rooms' and '5 rooms' are by far the largest. In relative terms, all differences are quite large, except for the category '4 rooms'. It can be concluded that a mismatch is present in at least two categories. The difference between stated and revealed situation is significant ($\chi^{2(5)} = 134.247$, $p < 0.01$; CBS 2025c). Even though no results considering the number of rooms were identified in empirical findings, it is monitored that new-build dwellings become smaller in order to keep housing affordable. In combination with the focus on building apartments, it is quite possible that the number of rooms will decrease.

Last characteristic of the house itself concerns the preference for a study. More than two-thirds of the individuals indicate they would like a study in their house. In practice, almost 60% of the first-time buyers has a study after moving. The difference between stated and revealed situation is 7.7%. It can be concluded that there is a mismatch for these categories. The difference between stated and revealed situation is significant ($\chi^{2(1)} = 9.608$, $p < 0.01$; CBS 2025c).



Category	Difference
Detached house	4.2%
Semi-detached house	0.5%
Corner house	6.9%
Terraced house and other	4.9%
Apartment	7.2%

Figure 5.3 Difference between stated and revealed preference of first-time buyers considering housing typology (CBS, 2025c)



Category	Difference
1-2 rooms	3.9%
3 rooms	12.5%
4 rooms	3.2%
5 rooms	13.7%
6+ rooms	4.4%
No preference/ No opinion	-

Figure 5.4 Difference between stated and revealed preference of first-time buyers considering certain number of rooms (CBS, 2025c)

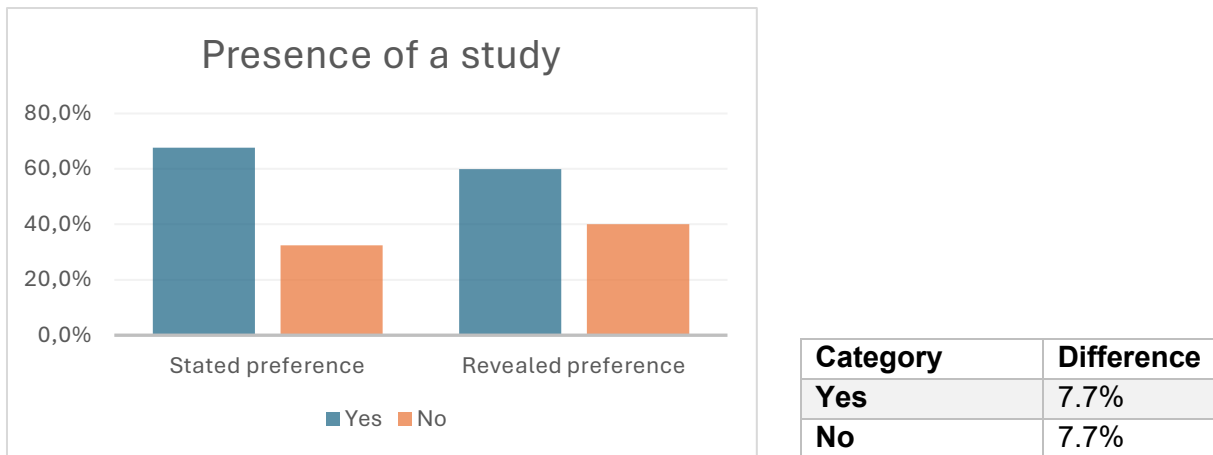


Figure 5.5 Difference between stated and revealed preference of first-time buyers considering presence of a study (CBS, 2025c)

Analysing characteristics outside the house, presence of a garden, garage or carport and parking facilities were identified as preferences. Looking at the preference for a garden, presence of a garden and presence of a garden and balcony are added up. The presence of a balcony in the revealed situation is left out. Table 5.9 shows that differences present in this characteristic are substantially, in percentage terms as well as in relative terms. It can be concluded that there is a mismatch for at least one category. The difference between stated and revealed situation is significant ($\chi^{2(2)} = 612.278, p < 0.01; CBS 2025c$).

Just as in the previous section, results of this WoON 2024 analysis is contradictory compared to other empirical findings. Current focus on building apartments and houses with smaller outside space could indicate a match between supply and the wishes of first-time buyers. However, it is important to notice that other literature indicate that first-time buyers do appreciate the presence of a garden.

Looking at the presence of a garage or carport, it can also be concluded that there are large differences in percentage terms and in relative terms. Even though table 5.9 shows that a large group has no preference in the stated situation, it can be concluded that there is a mismatch for this preference, as more than one-third has a wish for a garage or carport near their house, while in practice only one quarter owns a garage or carport after moving. The difference between stated and revealed situation is significant ($\chi^{2(2)} = 551.229, p < 0.01; CBS 2025c$).

Last characteristic analysed for this group is the presence of private or shared parking facilities. Remarkable is that in particular difference for the category 'wish for no parking facility/not present' is large. This can be explained by the large percentage of individuals that indicated 'no preference/no opinion'. Other differences are small. From table 5.9, it can be concluded that there are no mismatches present looking at the preference 'parking facility'. The difference between stated and revealed situation is significant ($\chi^{2(3)} = 243.251, p < 0.01; CBS 2025c$).

The preference of parking facility as a neighbourhood characteristic is popular according to research by Veerhoek (2024). Even though a garage or carport and presence of parking facility as part of new construction is not monitored, it stands to reason that these features are often left out in order to keep new construction affordable.

Garden	Stated preference	Difference	Revealed preference
Yes	21.9%	49.1%	71.0%
No	27.6%	22.1%	5.5%
No preference/no opinion	50.5%	-	-
Total	100.0%	23.5%	76.5%
Total	129,385		202,154 (100.0%)
Garage or carport			
Yes	36.2%	14.0%	25.0%
No	29.3%	48.5%	75.0%
No preference/no opinion	34.5%	-	-
Total	100.0%	-	100.0%
Total	350,481		202,153
Parking facility			
Yes, private parking space	14.7%	2.1%	16.8%
Yes, shared parking space	28.5%	1.3%	29.8%
Wish for no parking facility/not present	27.9%	25.5%	53.4%
No preference/no opinion	58.9%	-	-
Total	100.0%	-	100.0%
Total	223,624		151,573

Table 5.9 Stated and revealed preference considering preference for a garden, garage or carport and parking facility present in the WoON 2024 (CBS, 2025c)

Just as in the previous section, to compare stated and revealed situation, preferred price range is compared to the market value. Results are visualised in table 5.10. It is remarkable that the revealed situation is higher in the three highest price ranges. Almost all differences are relatively large (except for the category '€300,000-€399,999'). In percentage terms, the biggest differences are present in the category '>€500,000', '€250,000-€299,999' and '€400,000-€499,999'. It can be concluded that there are mismatches present in at least four of the seven categories. This can be explained based on the rising housing prices, or different expectations as a result of the heated market. More first-time buyers prefer to buy a house in lower price ranges, while in practice less first-time buyers expect to sell their house for a price matching those lower price ranges. The difference between stated and revealed situation is significant ($\chi^2(6) = 44.823, p < 0.01$; CBS 2025c). A remarkable trend present in the new-build market is that individuals get less house for the same amount of money. This has to do with keeping construction affordable and the inner-city location of construction (NVM, 2025b). Looking at plan capacity, of the 34.4% of planned-occupied housing, almost 15.0% will be affordable (April 2026, 20.6% undefined price range; ABF Research, 2025), and therefore will contribute to the category €400,000-€499,999 and below (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, n.d.-b). Different policy measures, such as the implementation *KoopStart* or *KoopGarant*, could enable first-time buyers who are constrained by a certain price range to purchase a higher-priced dwelling.

Study of Veerhoek (2024) shows that 48.0% of the first-time buyers has a preference for a house priced lower than €300,000, while analysis of WoON 2024 shows that 38.7% of the first-time buyers has preference for a house priced with a maximum of €300,000 in the new-build

market. Also research by Maaskant (2024) shows that 35% of first-time buyers has a preference for a house priced lower than €249,999, while in the new-build market 19.2% has a preference for this category. It is no surprise that that this difference in both studies has become bigger since 2021, as housing prices have risen over the years.

Price range	Stated preference	Difference	Revealed preference
<€150,000	2.3%	0.5%	1.8%
€150,000-€199,999	4.3%	2.6%	1.7%
€200,000-€249,999	12.6%	4.0%	8.6%
€250,000-€299,999	19.5%	5.2%	14.3%
€300,000-€399,999	27.3%	1.8%	29.1%
€400,000-€499,999	17.2%	4.4%	21.6%
≥€500,000	16.7%	6.4%	23.1%
Total	100.0%	-	100.0%
Total	350,480		202,154

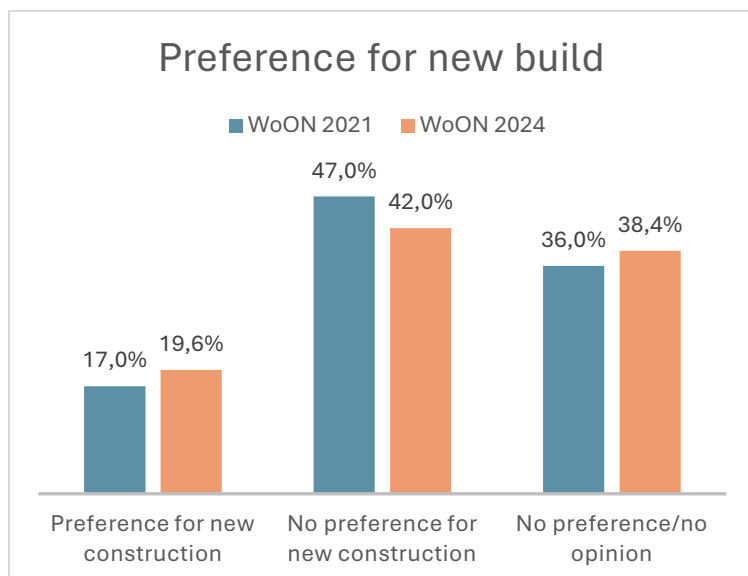
Table 5.10 Stated and revealed preference considering price range in the WoON 2024 (CBS, 2025c)

5.3 What are the stated preferences according to the WoON 2021 and WoON 2024

5.3.1 Why focus on the development of stated preferences?

Aim of the last part of the quantitative analysis is to focus on the development of preferences over time. As the purpose of the overall study is to find out how new supply matches the initial demand from first-time buyer, focus will be on the stated preferences. Another reason to focus on this type of preference, is that the individuals selected for analysing the revealed situation are moved in the past two years. This indicates this group lives in new construction as well as in existing construction and is therefore less representative compared to the stated preference where cases only represent new construction. Even though the researcher is aware the initial, stated preference might be unrealistic (which is also substantiated in literature), this concept allows for the best comparison to answer the research questions.

Just as in chapter 5.2, focus will be on the preference for new construction of the first-time buyer. Developments in general preferences can be found in appendix D. However, one important development worth noting is the development of the general desire for new construction. In particular the group who has no preference for new construction is smaller in 2024, while the group who prefers new construction or has no opinion regarding this matter has become bigger in 2024. This could be explained by the benefits that new construction offers. Differences between the two years are shown in figure 5.7 and are not significant ($\chi^{2(2)} = 5.118, p = 0.08; CBS, 2022, 2025c$).



Category	Difference
Preference for new construction	+2.6%
No preference for new construction	-5.0%
No preference / no opinion	+2.4%

Figure 5.7 General development of stated preference for new build (CBS, 2022, 2025c)

5.3.2 Developments of the stated preference over time

Sub-questions two and three do not only address difference between stated revealed preferences within the same year but also address possible developments of stated and revealed preferences over the years. Some preferences are only present in stated or revealed form, or only in the WoON 2021 or in the WoON 2024. The italic preferences in table 5.11 show the selected preferences from the total datasets that allow for comparison within a time window. It can be concluded that six of the selected stated preferences are present in the WoON 2021 as well as in the WoON 2024.

Stated preferences identified in WoON 2021	Stated preferences identified in WoON 2024
<i>Municipality size</i>	<i>Municipality size</i>
<i>Housing typology</i>	<i>Housing typology</i>
<i>Number of rooms</i>	<i>Number of rooms</i>
<i>Garden</i>	<i>Garden</i>
<i>Price range</i>	<i>Price range</i>
Type of living environment	Study
	Garage or carport
	Parking space

Table 5.11 Stated preferences in WoON 2021 and 2024. Preferences in italics appear in both surveys and are suitable for comparison (own work, 2026).

The only analysis possible regarding the living environment addresses the municipality size and is visualised in table 5.12. All differences present are relatively big, comparing the situation of the WoON 2021 to the WoON 2024. It turns out, most individuals have no initial preference for a municipality size. In percentage terms, differences are the biggest for the categories 'medium city', 'large city' and 'small city'. The number of first-time buyers that has no preference, remains the largest category, followed by the group that prefers 'large village',

‘small city’ and ‘medium city’. Important is to notice that the difference between the two situations is not significant ($\chi^{2(4)} = 4.128, p = 0.53$; CBS, 2022, 2025c).

Municipality size	WoON 2021	Difference	WoON 2024
Small village	6.6%	-1.0%	5.6%
Large village	17.7%	+3.1%	20.9%
Small city	14.9%	+2.6%	17.5%
Medium city	12.4%	+4.8%	17.2%
Large city	14.7%	-3.8%	10.9%
No preference/no opinion	33.6%	-5.7%	27.9%
Total	100.0%	-	100.0%
Total count	38,733		66,691

Table 5.12 Development of stated preference considering municipality size in the new-build market (CBS, 2022, 2025c)

Other analyses consider characteristics of the house itself, like housing typology. In percentage terms, most (relative) differences are limited, except for the category ‘apartments’. All other differences are small, both in percentage and relative terms. This development is clearly visible in figure 5.8. In 2024, the largest group prefers apartments (38.1%), followed by the group that has a preference for a terraced house (30.0%). In absolute numbers, supply and demand do not match, but the popularity for apartments corresponds with relatively large supply of apartments. However, there is a mismatch between demand and the relatively small supply of terraced houses (NVM, 2025b). The difference between WoON 2021 and WoON 2024 is significant ($\chi^{2(4)} = 13.675, p = 0.01$; CBS, 2022, 2025c).

Another housing characteristic is the preferred number of rooms. In percentage terms, the differences are quite substantive for the categories ‘3 rooms’ and ‘5 rooms’. In relative terms, all differences are quite large, except for the category ‘no preference’ which remained unchanged. Figure 5.9 shows that the two groups which clearly have the largest preference in 2024 are the categories ‘3 rooms’ and ‘4 rooms’. The difference between the two surveys is significant ($\chi^{2(5)} = 33.347, p < 0.01$; CBS, 2022, 2025c).

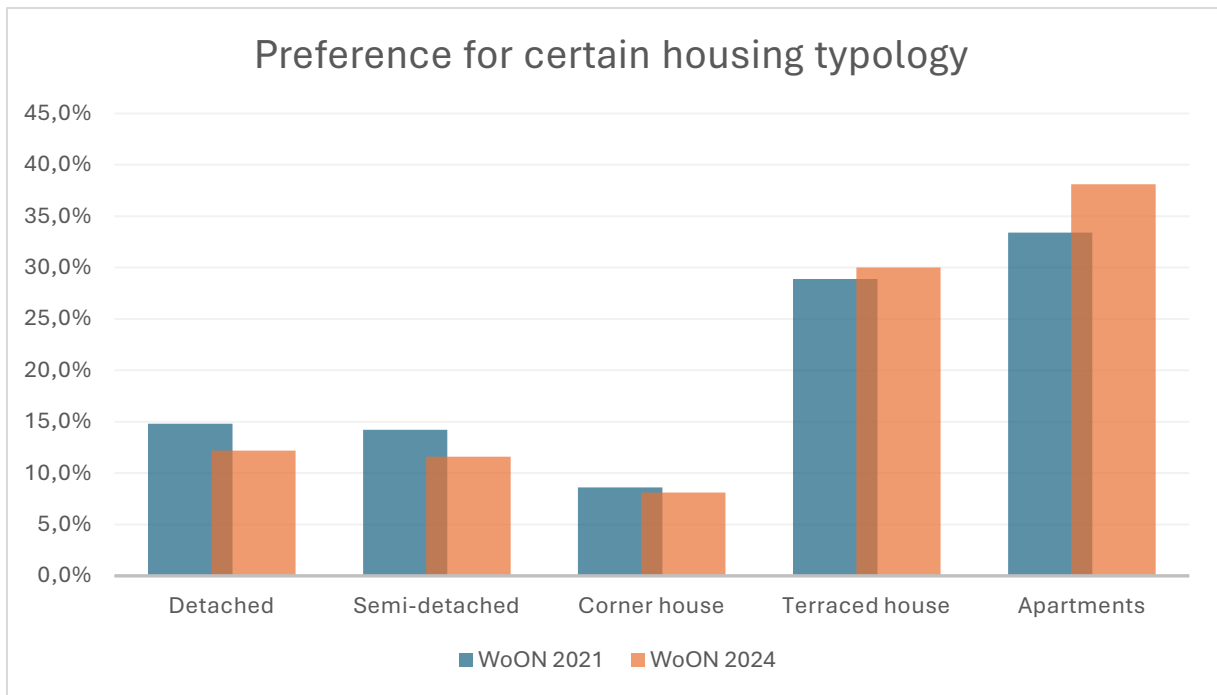


Figure 5.8 Stated preference for a certain housing typology in the new-build market (CBS, 2022, 2025c)

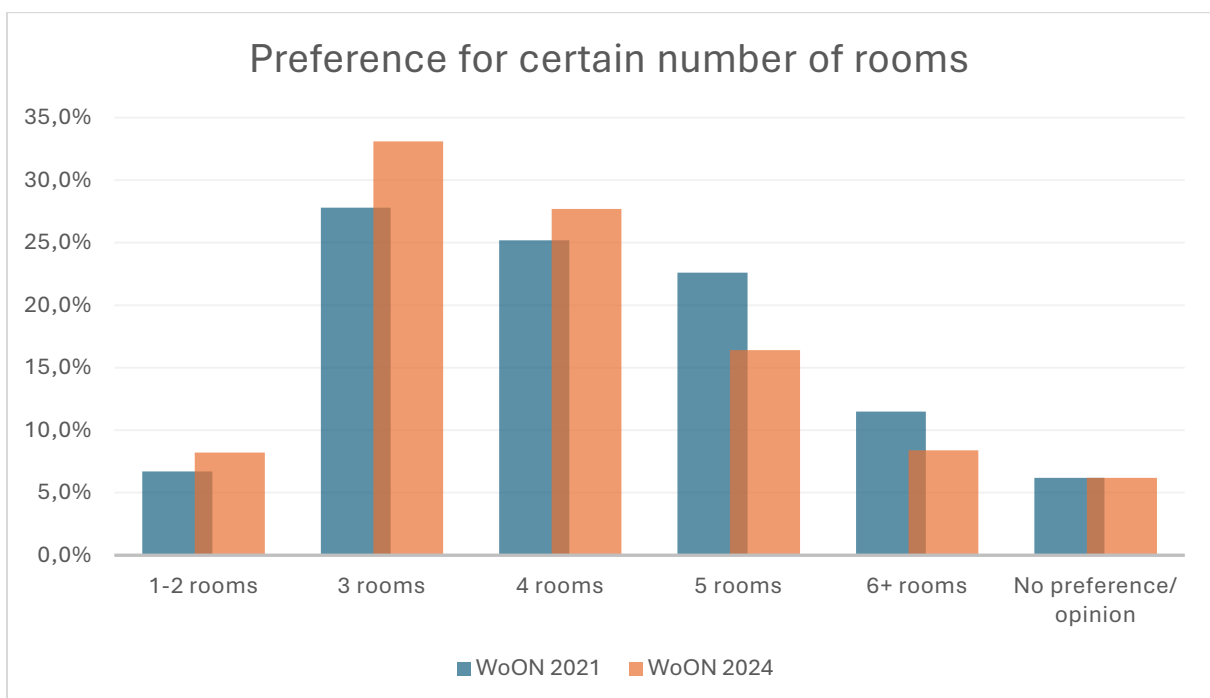


Figure 5.9 Stated preference for certain number of rooms in the new-build market (CBS, 2022, 2025c)

The category analysed that concerns the wish for a garden, is shown in table 5.13. In percentage terms as well as in relative terms, the differences for preference for a garden are limited. The group that has no opinion considering this characteristic is the largest in 2024. The declining popularity of a garden is in line with the trend regarding the relatively small supply of single-family houses in the new-build market. Assumed that the large group of individuals that indicates to have no preference or opinion is also satisfied with a house without a garden or a

smaller garden, the large supply of apartments might match their preference. Differences between both surveys are insignificant ($\chi^{2(2)} = 1.067, p = 0.59$; CBS, 2022, 2025c).

Garden	WoON 2021	Difference	WoON 2024
Preference for house with a garden	25.8%	-3.9%	21.9%
No preference for a house with a garden	26.1%	+1.5%	27.6%
No preference/no opinion	48.1%	+2.4%	50.5%
Total	100.0%	-	100.0%
Total count	94,792		129,385

Table 5.13 Development of stated preference considering preference of a garden in the new-build market (CBS, 2022, 2025c)

The last category analysed regards the preferred pricing range. As well in percentage terms as in relative terms, some large differences are present between the WoON 2021 and WoON 2024 ($\chi^{2(6)} = 108.444, p < 0.01$; CBS, 2022, 2025c). In 2021, the category ‘€300,000-€399,999’ was clearly the most popular. In 2024, this category became even more popular. Perhaps the most striking change is the growing demand for houses in higher price segments (from €250,000 and above) in the WoON 2024. These differences between price ranges are clearly visible in figure 5.10. This difference is influenced by multiple factors like increased housing prices and salaries. It is important to notice that these factors make it hard to compare the two situations. Therefore, it is necessary to implement the average housing price. For the WoON 2021 it can be concluded that at least 79.5% had the wish to buy a house the average price of €460.087. For the WoON 2024 it can be concluded that at least 66.0% had the wish to buy a house below the average price of €491.661 (CBS, 2026). The wish of the first-time buyer that wants buy a newly built house in a lower price segment seems to be smaller in the WoON 2024 analysis.

Policy steers the new-build market to build more affordable. An affordable owner-occupied house has a price of maximum €405,000 (in 2025; Ministerie van Volkshuisvesting en Ruimtelijke Ordening, n.d.-b). An increase of this affordable supply helps by far the largest share of first-time buyers (at least two-thirds of the total number first-time buyers).

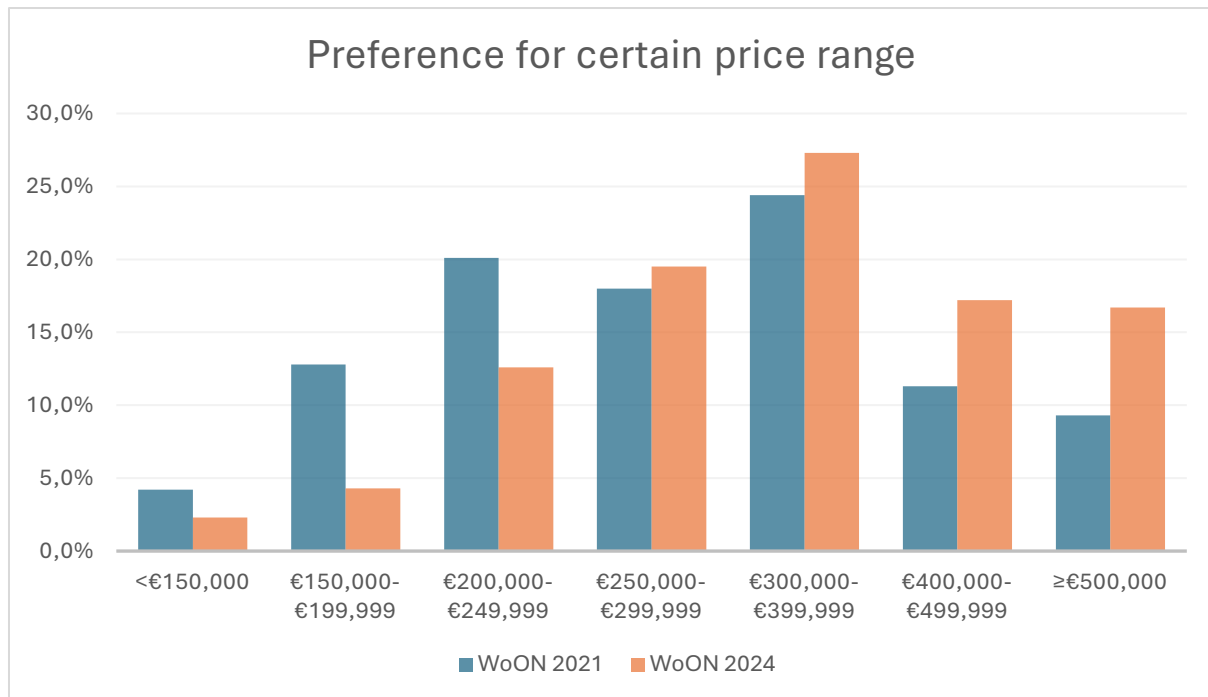


Figure 5.10 Stated preference for a certain price range in the new-build market (CBS, 2022, 2025c)

5.4 Conclusion

Aim of chapter five was to answer the second and third sub-questions: *What are the stated preferences of first-time buyers in the new-build market, and have those preferences changed over time? And How do revealed preferences of first-time buyers show in the new-build market, and have those preferences changed over time?* Both questions were answered by analysing the WoON 2021 and WoON 2024 databases. This conclusion provides an overview of the results, by showing the (mis)matches of stated and revealed preferences present in the WoON 2021 and WoON 2024, and by showing the development of stated preferences over time. It is important to keep in mind that the revealed preference does not consider new construction specifically, but includes first-time buyers who have recently bought or moved to an existing or new house.

(Mis)matches present in WoON 2021

Analysing the living environment and the variable 'municipality size', it can be concluded that limited mismatches are present in the categories 'small village/not urban' and 'small city/moderately urban' ($\chi^{2(5)} = 319.975$, $p < 0.01$). Examining the variable 'type of living environment', it appears that (limited) mismatches considering the categories 'city centre', 'green urban' and 'rural living' are present ($\chi^{2(4)} = 17.413$, $p < 0.01$). For this variable, the results are remarkable. It was found that most people prefer to live outside the city centre, which is contradictory to studies of Hoefnagel (2011) and Maaskant (2024).

Examining the characteristics of the house itself, the variables 'housing typology' and 'number of rooms' were studied. Analysing the variable 'housing typology', mismatches in the categories 'detached house', 'semi-detached house' and 'apartment' are identified ($\chi^{2(4)} = 67.915$, $p < 0.01$). Evaluating the variable 'number of rooms', a mismatch in the category '3 rooms' is identified ($\chi^{2(5)} = 105.671$, $p < 0.01$). Focussing on the outside features of the house, the preference for the variable 'garden' shows that there is a clear mismatch in the category 'no' ($\chi^{2(2)} = 661.774$, $p < 0.01$).

Analysing price ranges, different mismatches were identified. Some of these mismatches are limited. Mismatches are present in the categories '<€150,000', '€150,000-€199,999', '€200,000-€249,999' and '€250,000-€299,999'. However, the difference between stated and revealed preference is not significant ($\chi^{2(6)} = 6.841$, $p = 0.34$).

It can be concluded that the difference between stated and revealed situation is significant for most studied preferences (and therefore do not match), except for the preference for a certain price range.

(Mis)matches present in WoON 2024

For the WoON 2024 analysis, more variables (preferences) were available compared to the WoON 2021 analysis. Analysing the living environment, a (limited) mismatch is present for the categories 'large village/not urban' and 'small city/moderately urban' ($\chi^{2(5)} = 270.786$, $p < 0.01$).

Examining the characteristics of the house itself, the variables 'housing typology', 'number of rooms' and 'study' were studied. For the variable 'housing typology', mismatches are identified in the categories 'detached house', 'semi-detached house' and 'apartment' ($\chi^{2(4)} = 45.031$, $p < 0.01$). Most first-time buyers prefer an apartment or terraced house. These outcomes are contradictory to results of the study of Veerhoek (2024). She states that most individuals have the preference for a detached dwelling, corner dwelling and semi-detached dwelling. For the variable 'number of rooms', mismatches are identified in the categories '3 rooms' and '4 rooms' ($\chi^{2(5)} = 134.247$, $p < 0.01$). Finally, the preference for the variable 'study' shows a mismatch in the category 'yes' ($\chi^{2(1)} = 9.608$, $p < 0.01$).

Analysing outside features, the variables 'garden', 'garage or carport' and 'parking facility' were analysed. While studying the preference for the variable 'garden', a mismatch in the category 'no preference' was identified ($\chi^{2(2)} = 612.278$, $p < 0.01$). Outcomes for this preference were remarkable, since the results suggest that first-time buyers do not think a garden is that important. Contradictory to these results, studies of Hoefnagel (2011) and Veerhoek (2024) suggest that first-time buyers do state that outside space and garden important. However, it should be noted that the analysis of the WoON 2024 only involved preference for a garden, and not for a balcony. Furthermore, a mismatch was observed for the variable 'garage or carport' in the category 'yes' ($\chi^{2(2)} = 551.229$, $p < 0.01$). Last variable regarding outside features considers 'parking facility'. For this preference, no mismatch was identified ($\chi^{2(3)} = 243.251$, $p < 0.01$).

Analysing price ranges, different (limited) mismatches were identified. It can be concluded that mismatches are present in the categories '<€150,000', '€150,000-€199,999', '€200,000-€249,999' and '€250,000-€299,999' ($\chi^{2(6)} = 44.823$, $p < 0.01$). The largest group has a preference for the category €300,000-€399,999. This variable indicates different outcomes compared to results of other studies. Because of the rising housing prices it is no surprise that the (older) empirical findings suggest that first-time buyers had the preference to buy a house in a lower category.

The present mismatches in the WoON 2021 and WoON 2024 databases are similar for the variables 'municipality size', 'housing typology', 'number of rooms', 'garden' and 'price range'. A small difference between the two databases was present in the number of rooms, since not only a mismatch for the category '3 rooms' was present, but also for the category '4 rooms'.

It can be concluded that the difference between stated and revealed situation in the WoON 2024 is significant for all the studied preferences, and that match between stated and revealed preference is limited.

Developments of stated preferences present in WoON 2021 and WoON 2024

Studying the development of stated preferences over time, the preference for municipality size, housing typology, number of rooms, garden and price range were compared. Analysing the preference for certain municipality size, the number of first-time buyers that has a preference for the categories 'large village', 'small city' and 'medium city' was larger in the WoON 2024 compared to those present in the WoON 2021. The other categories were smaller in the WoON 2024. However, the difference between the WoON 2021 and WoON 2024 is insignificant ($\chi^{2(4)} = 4.128$, $p = 0.53$).

Analysing housing typologies, the two most popular categories 'terraced house' and 'apartments' are even more popular in the WoON 2024 compared to the WoON 2021. The categories 'detached', 'semi-detached' and 'corner house' are (slightly) less popular ($\chi^{2(4)} = 13.675$, $p = 0.01$). Another preference related to the house itself is the preference for a certain number of rooms. The number of individuals that prefers the categories '1-2 rooms', '3 rooms' and '4 rooms' is larger in the WoON 2024 compared to the WoON 2021. All other categories were smaller in the WoON 2024 or do not show a difference ($\chi^{2(5)} = 33.347$, $p < 0.01$). It can be concluded that the results for the preferences housing typology and number of rooms are significantly different in the WoON 2024 compared to the WoON 2021.

Analysing the preference for a garden, relative small differences are present. The category 'no' and the category 'no preference/no opinion' is larger in the WoON 2024 compared to the WoON 2021. The category 'yes' is smaller in the WoON 2024 compared to the WoON 2021. However, this difference is insignificant ($\chi^{2(2)} = 1.067$, $p = 0.59$).

Remarkable developments are present evaluating the preference for a certain price range. The percentage of individuals that indicated to have a preference for a lower price range is lower in the WoON 2024 compared to the WoON 2021, while the percentage of individuals that indicated to have a preference for the four higher price categories is higher in the WoON 2024 compared to the WoON 2021. It can be concluded that the popularity of more expensive price categories is larger in the later database, and that the results for a certain preference price range is significantly different in the WoON 2024 compared to the WoON 2021 ($\chi^{2(6)} = 108.444$, $p < 0.01$).

To answer the second half of both sub-questions, it can be concluded that only the preferences regarding housing typology, a certain number of rooms and a certain price range changed significantly over time. The preferences regarding the garden and municipality size have changed insignificantly.

6. Stated and revealed preferences derived from interviews

Aim of the sixth chapter is to answer sub-question four: *In which order are trade-offs made by first-time buyers, as they enter the new-build market?* To answer this sub-question four interviews were conducted. Three participants consider cases of people who just bought or moved into a new-build dwelling (referred to as respondents A1-3). One participant considers a first-time buyer who was searching for a house (referred to as respondent B). First paragraph provides more detail regarding the development of the interviews, characteristics of respondents and how analysis was conducted. Second paragraph elaborates on how respondents relate to previous findings. Third paragraph reflects on the general considerations of first-time buyers for existing or new-build properties, on the preferences of first-time buyers and on the extent to which supply meets demand from the first-time buyer. The fourth paragraph provides more detail on which trade-offs are made by first-time buyers. Chapter six will end with a conclusion.

6.1 Introduction

Different approaches were applied to find interview participants. First approach was through network of third parties. Unfortunately, this approach did not lead to any respondents. Then, interview respondents were recruited in the environment of the researcher. Some respondents were contacted personally, some were recruited through a mutual connection. This led to four interview participants. All the interviews took place in April via Microsoft Teams. This programme was also used to record the audio files and helped to establish the transcriptions. All the interviewees bought their house together with a partner. Interview A1, A3 and B were attended by one interviewee, while interview A2 was attended by two interviewees. Therefore, from now on, references to this interview can be made in plural. Furthermore, it was chosen to implement a starter who is still looking for a house, even though this starter is not searching for a new-build dwelling. These data are relevant as aim of the research is to look into how supply meets demand. It may be the case that there is indeed supply for this first-time buyer, but that other aspects are the reason that the first-time buyer prefers existing construction.

Before conducting the interviews, interview schemes were developed to steer the conversation with the first-time buyers. The interview schemes for the first-time buyers who just bought a house were slightly different than the interview scheme for the first-time buyer who was searching for a house. Both interview schemes are present in appendix A. An important part of the interviews concerned preferences and trade-offs regarding those preferences. Because 'housing preference' is a broad concept, the aforementioned checklist was used during the conversation. The preferences on this checklist can be seen as deductive codes. These codes were grouped based on if they regard the house itself or the living environment. Because housing preferences vary so widely, it is impossible to summarise them all into one list. It therefore makes sense that, while doing the interviews, respondents brought up new preferences themselves. An example of such code is presence of light in the house. The brought up preferences were added to the list as open codes. The list with different codes regarding preferences is shown in table 6.1 and a complete overview of codes used is presented in appendix E.

The order of questions during the interviews was fairly consistent. Three of the four respondents participated individually in the interview, while they bought a house together with a partner. Only one couple participated together in the interview. Broadly speaking, the

interviews consisted of three parts. The first part considered general questions about the search for a house to obtain more background information about the first-time buyer. This part of the interview also allowed to gain more insight into where the individuals were searching for or why they bought a house. Obtaining background information was important since context is relevant regarding the housing market. Characteristics of the respondents are set out in table 6.2. The second part of the interviews elaborated more on their preferences. During the interviews it was important that respondents expressed or introduced their own preferences. Therefore, it was chosen to first ask about their preferences in general, and after this to examine the preferences that stood out in the results of quantitative analysis in more detail. Only the preferences brought up by the first-time buyers themselves have been used to determine the order of priorities. The last part of the interview considered the trade-offs. When it turned out that none or little trade-offs were made, it was asked in which order they would make or would have made concessions, to get an idea of their order in trade-offs.

After the interviews, transcriptions were established and analysis was conducted with help of ATLAS.ti. First, the transcripts were uploaded to the software. Then, the two groups of inductive codes were created in the software and open codes were added. These open codes consisted, among other things, of preferences, concessions, barriers, supply of new construction and advantages/disadvantages of new construction. Distinct groups were created to ensure overview in the coding software. All the codes together helped to find results that contributed to answering the research question, and to analyse the transcripts. The code manager assisted in getting an overview of which codes appeared in which interviews. While writing the results section, the identified quotes were used to substantiate the narrative.

Characteristics of the house	Characteristics of the living environment
Deductive codes	Deductive codes
Form of ownership	Location/region
Price	Living environment
Housing typology	Physical characteristics
Surface	Social characteristics
Number of rooms	Functional characteristics
Number of bedrooms	Proximity/facilities
Layout of the house	Scenery
State of maintenance	Presence of nature
Architectural style	Quality
Year of construction	Architectural style
Number of toilets	Semi-public space
Kitchen layout	Public transport
Parking facilities	Safety
Outside space	
Quality	
Surface of the living room	
Storage space	
Semi-public space (multi-family homes)	
Inductive codes	Inductive codes
Presence of light	Peaceful/limited noise
	Streetscape

Table 6.1 Coding list derived from literature and interviews (derived from Besselink, 2015; Boumeester et al., 2005; de Jong, 1997; Hoefnagel, 2011; Jansen, 2013; Veerhoek, 2024; own work, 2026).

Respondent(s)	A1	A2	A3		B
Age	Younger than 35 years old	Younger than 35 years old	Younger than 35 years old	Age	28 years old
Gender	Female	Male and female	Male	Gender	Female
Relationship status	Partnered (participated individually)	Partnered (participated together)	Partnered (participated individually)	Relationship status	Partnered (participated individually)
Budget	>€600,000	≈€500,000	€400,000-€500,000	Budget	>€725,000
Preference for new construction or existing construction	No preference for new construction or existing construction	No clear preference	Preference for new construction	Preference for new construction or existing construction	Preference for existing construction
Year of signing the property purchase agreement	2025	2024	2023/2024 (estimation)	-	-
Search location	Noordwijk (and the surrounding area)	Haarlem (and the surrounding area)	Groningen (Den Haag)	Search location	Amsterdam
Searching time	Three months	At least half a year	Half a year	Searching time	Two years
Already moved	No	No	Yes	-	-

Table 6.2 Characteristics of the interviewees (Own work, 2026)

6.2 How do preferences of respondents correspond with previous findings

The prepared interview questions allowed for certain consistency and for discussing subjects relevant to answer the research questions. The interview schemes also allowed for implementing interesting results from of the quantitative analyses. These results consider preference for the living environment, housing typology, appreciations of an outside space and preferred price range. Sometimes, the interviewees brought up one of these preferences themselves which means that these preferences can also be part of the established priorities.

A first remarkable conclusion can be drawn from the results of the WoON 2021 analysis and regards the living environment. It seems that the first-time buyers in the new-build market have a larger preference for living outside the city (green urban, village centre or suburban). Research by Veerhoek (2024) shows a similar preference for living outside the city. Contradictory, research by Maaskant (2024) shows that larger part of first-time buyers has the wish for living in the city centre or in a suburban environment. The answers of the four interviewees show a pattern that looks most like the result of Maaskant (2024). Respondent A1 indicated to have no preference for a certain living environment, as long as the house is in the preferred location. Respondents A2, A3 and B indicated to have a preference to live closer to the city (centre). However, in the beginning of their search (while they were still searching for existing housing), respondents A2 did search further away from the city centre. The

preference to live closer to the centre corresponds with results of Maaskant (2024), and differs from the WoON 2021 analysis and results of Veerhoek (2024).

Evaluating housing typologies, it can be concluded from the quantitative analysis of WoON 2021 and WoON 2024, that first-time buyers have the strongest preference for apartments, followed by terraced houses. In relative terms, the supply of these two typologies is the largest. Research by Veerhoek (2024) suggests that first-time buyers have the largest preference for detached- corner- and semi-detached dwellings, while research by Maaskant (2024) suggests that stated preference is the largest for terraced houses and apartments. This last result corresponds with multiple outcomes of the interviews. During the interviews it was found that respondent A1 had no preference for a certain typology. The respondent would have been happy with either an apartment or a ground-based house. Respondents A2 initially preferred a terraced house (in the ideal situation a corner house or semi-detached house, but they were realistic enough to realise that these specific typologies were not possible). After the respondents experienced that a terraced house both in the existing housing market and in the newly built market was out of reach, the decision has been made to look for a newly built apartment. Respondent B indicated that she prefers to live in an apartment (preferably a maisonette). She would like to live in a single-family house, but considering location and budget, she and her partner only view apartments. It is open to debate whether this could be seen as a stated preference since a single-family house was never really an option. For respondent A3, an apartment was no option since the presence of garden was an important preference. For him, his preference was a terraced house, corner house or a ground-floor apartment. It can be concluded that the preferences of respondents A2, A3 and B seem to correspond with the varying empirical findings, and that both apartments and terraced houses were indicated as preferences.

Third remarkable finding concerns the presence of a garden. From the results of the WoON 2021 and WoON 2024 analyses, it appears that first-time buyers found this characteristic not that important, while other empirical findings indicate that a garden or outside space is very important for first-time buyers. In the four interviews respondents A1, A2, A3 and B indicated to have a stated preference for a house with a garden or outside space. Respondents A2, A3 and B indicate that the absence of a garden or outside space would be a dealbreaker for purchasing a house. It can be concluded that results of the interviews do correspond with the empirical findings of Hoefnagel (2011) and Veerhoek (2024), and that a garden or outside space can be considered as important for the first-time buyer in the new-build market.

Last remarkable result concerns the price range. Analysis of the WoON 2021 indicates that more first-time buyers have a wish to live in a house priced in a lower category in the new-build market, compared to first-time buyers studied in the research by Veerhoek (2024) and Maaskant (2024). This seems to have changed looking results of the WoON 2024 analysis, as it can be concluded that more first-time buyers have a wish to live in a higher priced house compared to the results of Veerhoek (2024) and Maaskant (2024). Also, the results of the interviews indicate that first-time buyers have the preference to buy a house in a higher price range. Respondents A1, A2 and B are or were looking for a house in the category priced €500,000 or higher. However, respondents A2 and B did, at the start of their search, have a preference to buy a house priced below the limit for exemption of transfer-tax in the existing market, but it turned out this was not realistic. Respondent A3 indicated to prefer a house between the €400,000-€500,000. Eventually, respondents A1, A2 and A3 bought a house on

the new-build market within their preferred price range. It can be concluded that the interviewed first-time buyers seem to have a wish to live in a higher priced house. However, it is important to note that, all first-time buyers interviewed bought a property together with a partner and may therefore have had greater financial resources compared to first-time buyers purchasing a property on their own. Another reason for the difference between empirical findings and the results of the interviews might be the rising housing prices and rising loans (and therefore the ability to take out a higher mortgage).

6.3 Identified preferences in the interviews

6.3.1 Advantages and disadvantages of new construction

In the first section of the interview, it was asked whether and why first-time buyers prefer new construction. It is relevant to elaborate on why first-time buyers (do not) prefer new-construction, since it provides deeper insight into why a first-time buyer choose to buy his house or why a first-time buyer is looking for a house on the new-build market. Furthermore, characteristics of a new-build dwelling might also align with preferences of first-time buyers. For example, respondent A1 indicated sustainability as a preference. She indicated that a new built house comes with the benefit that it is (probably) more sustainable compared to an existing house. This is evident from the following quote:

...ook inderdaad dat je alles wat er in moet zitten qua duurzaamheid, dat zit er al in, en dat zijn ook vrij hoge kosten die je anders zou moeten maken als je geen nieuwbouwwoning hebt [en zou moeten verbouwen] en het scheelt met een nieuwbouwwoning. Wij verwachten dat we de eerste 10 à 15 jaar geen grote kosten zullen hebben aan onderhoud omdat het nieuw is.

From the interviews, different advantages and disadvantages of newly built properties have been identified that eventually led to a preference for existing housing or new construction. The identified (dis)advantages are present in table 6.3.

Advantages of new-construction/ reasons to prefer new construction	Disadvantages of new- construction/reasons to prefer existing construction
Quality of the houses reflected in sustainability.	Long waiting times between buying the ground and handover of the property, and potential double charges.
No expected large maintenance cost in the near future.	Designing from a floor plan is difficult and requires insight.
Certain insurance that contractor is liable for certain shortcomings for X years.	Even after handover, it will take years before the entire project is complete. This may cause some inconvenience.
Avoiding of a bidding war in the heated housing market and transparency on costs.	Few updates on progress of the construction work, it takes effort to find out where construction is standing.
A lot of young people together who are in the same period of life.	Aesthetics and historical value of existing dwellings may have a preference.
Time period between purchase and handover of the property allows for saving money in the meantime.	Sometimes new construction is simply too expensive to meet preferences, while existing construction might offer supply in the preferred range.
As a first owner, you are very flexible to design everything yourself.	
No need for months-long renovation receiving the key.	
Financial benefits like no transfer tax and a (more) flexible new-build depot.	

Table 6.3 (Dis)advantages of new construction according to interviewees (Own work, 2026)

From the three interviews with respondents that just bought a newly built house, it could be concluded that respondent A1 did not have a strong preference for new construction and that she has also viewed properties in the existing market. Even though the respondent preferred the architecture of existing housing, the sustainable character of a new build did make a new-build dwelling more attractive. This is reflected in the following quote:

...qua hoe het huis eruit ziet, hou ik heel erg van oude huizen... zo van die schuifdeuren... jaren 30 ja, nou, dat vond ik echt prachtig. Ja, die sierlijken erbij en het aller liefste zou ik zo iets willen... Maar ik wil ook een woning die een beetje groen is en waar niet te diep in mijn eigen portemonnee zit om het warm te houden daarbinnen dus eigenlijk hield ik er dan ook altijd wel rekening mee met ja, hoe leuk het er nu uitziet. ...op een gegeven moment zal je het moeten gaan omgooien, zal die oude vloer eruit moeten omdat je toch iets van vloerverwarming wil.

Respondents A2 initially searched for an existing dwelling, but outbidding in the heated market ultimately led them to purchase a new-build dwelling. Respondent A3 preferred new construction, as he valued, among other things, the flexibility to design everything according

to his own preferences and the quality of a new-build dwelling. This is evident from the following quote:

Ja mijn voorkeur ging altijd wel uit naar nieuwbouw... je hebt zelf best wel veel invloed hoe je het wil inrichten en je kunt eigenlijk alles nieuw, naar je eigen smaak inrichten en je hoeft dan ook niet een bepaalde... een keuken eruit te halen die er nu in zit of de badkamer helemaal overhoop halen. Je kunt gewoon direct vanaf het beginnend inrichten hoe jij wil.

However, in his initial search area he also looked at existing properties. Respondent B indicated to have a preference for existing construction. For her, this preference has mainly to do with architectural style and is illustrated by the following quote:

Ja, dus wij kijken wel echt alleen naar bestaande bouw... nieuwbouw is echt heel erg niet op onze smaak, maar in Goes waar mijn vriend vandaan komt in Zeeland zijn net best wel veel nieuwbouwwoningen gebouwd die in oude stijl zijn gebouwd. Dat zou ik op zich nog wel oké vinden... dat is een uniek Amsterdam probleem, misschien ook, maar alle nieuwbouwprojecten in Amsterdam zijn best wel flattig en nieuw, modern en ik hou wel van beetje karakteristiek in een huis en het mag ook wel echt wel een beetje *quirks* hebben. Dat vind ik heel erg leuk.

The four interviews indicate that there is little demand among first-time buyers specifically for new-build houses (as only one first-time buyer indicated to have a strong preference for a newly built house). This corresponds to the quantitative results shown in figure 5.7.

Furthermore, it was asked if first-time buyers would recommend other first-time buyers to purchase a new-build dwelling. Even though only one respondent initially had the preference for a new-build dwelling, respondents A1, A2 and A3 recommend first-time buyers to purchase a new-build dwelling. It can be concluded that they are satisfied with their purchase, even though new-build may not have been their first choice. Respondent A1 indicated that a certain transparency that comes with buying a new-build dwelling can be a positive experience for first-time buyers:

...Ik denk dat het voor ons heel veel stress heeft gescheeld dat we niet in de in die hele bied oorlog zitten. Dan weet je al helemaal niet waar je aan toe bent. Wat dat betreft weet je het met een met een nieuwbouwwoning weet een beetje beter van, oké, er wordt geen spelletje bij me gespeeld. Het is gewoon, dit is de prijs, dit is wat je gaat betalen en alles wat je er extra bij wil, dan betaal je dan wel extra voor. Dan kan je er makkelijker een begrip bij vormen en ik ben heel blij dat we niet een bod hebben hoeven uitbrengen en dat je het door makelaars tegen elkaar wordt uitgespeeld.

Respondents A2 indicated that they would recommend new construction to first-time buyers, especially when they are still living with their parents. This prevents possible issues because of double expenses. Also, the absence of the need for renovating after the property has been handed over was mentioned as a reason why they would recommend a new-build dwelling. They also indicate that new build also offers perspective for first-time buyers who are single. This is substantiated by the following statement by respondents A2:

Ik denk dat voor veel starters tegenwoordig nieuwbouw wel één van de wat weinige opties is..... ook afhankelijk van of je alleen bent, of met z'n tweeën. Want je ziet

met nieuwbouw ook in, waar wij dan hebben gekocht, dat er ook nog wel kleinere appartementen tussen zitten. En die zijn dan zodanig geprijsd dat je eventueel dat ook nog wel in je eentje kan kopen. Dus ik denk wel dat het een goede optie is voor starters.

Respondent A3 stated that he would recommend purchasing a newly built house, as it allows for designing the dwelling according to his own preferences and it comes with a certain guarantee as the contractor fixes certain problems within five years. Respondent A3 stated the following:

Ik zou het zelf wel aanbevelen, omdat het ook wel gewoon heel leuk is dat je echt je eigen huis vanaf begin kan indelen, zeg maar en inrichten... dus je hebt best wel veel vrijheid terwijl je dingen, als je een bestaande woning hebt, zou je het ook allemaal kunnen veranderen, maar dat doe je toch minder snel omdat je dan denkt van nou, het is wel goed zo, dus laten we het eerst maar zo... En bij nieuwbouw moet je gewoon eigenlijk alles aanpakken en dan pak je direct aan wat je zelf ook hoe je het zelf mooi vindt.

6.3.2 Identified preferences from the interviews

Preferences that were discussed in the interviews and brought up by the first-time buyer are present in table 6.4. It was chosen only to note down preferences that the respondents brought up themselves and not to include preferences suggested by the interviewer. This was done to genuinely obtain the preference of the respondent.

The first interview with respondent A1 revealed the following preferences, in order of most important to less important, location (functional characteristic), two bedrooms, sustainability (quality), architectural style (of the neighbourhood) and presence of and outside space. Also a parking space close to home, and a certain price range was identified as a preference. The location was identified as most important preference, since proximity to work was important for the respondent and her partner. The least important preference was the preference for a garden. The respondents said the following about the absence of an outside space:

Het zou geen dealbreaker zijn, Maar het zou wel een reden zijn voor ons om het meer te zien als een soort doorstroom woning naar iets anders toe. Dus wel dat we het huis uit zouden kunnen gaan. En dat we dan, terwijl we daar in zaten, dat we door zouden gaan.

The preferences location, presence of at least two bedrooms and architectural style were identified as a possible dealbreakers. This was substantiated by the following quote:

Als het gewoon echt super saai grijs blok zou zijn met gewoon nul karakter en de hele straat niet, dan zou ik ook gedacht hebben van, nou, dat vind ik geen leuke... Ik denk dat de sfeer en de uitstraling die het had er ook wel voor heb gezorgd dat we daar wilden we wonen.

For respondents A2, the most important preferences were the presence of three bedrooms, the location, a ground-based house and a garden. Most important preference concerns the number of bedrooms. The following quote indicates that this strict requirement was also a dealbreaker for the couple:

...als dat dan ook geen 3 slaapkamers zo heeft. Ja, dan gaan we gewoon wat langer doorhuren en dan gaan we later nog wel verder kijken. Maar die 3 slaapkamers was wel echt de harde eis.

Ultimately, the property they bought meets the two most important criteria. Another preference that came up during the conversation was the wish to live near to the city centre (living environment).

Respondent A3 indicated that location was the most important preference, followed by the number of bedrooms, the presence of a garden, the sustainability (quality) of the house and layout/streetscape of the neighbourhood. Although presence of a garden and minimum of three bedrooms was a requirement, this is placed second and third. The interviewee stated:

...we zagen dat meer gewoon als een soort van minimum vereisten van we willen 3 slaapkamers en een tuin... en of het er nou 4 of 3 of echt de grootte van de tuin maakte ons ook nog niet zoveel uit. Maar meer dat het wel aanwezig was.

The absence of a garden was even mentioned as a dealbreaker, just as the wrong location. Other preferences that were brought up by the starter concern the location in relation to the city (living environment), presence of many young people and presence of green and nature.

The last interviewee concerned a starter who is looking for a house. Respondent B indicated that location/living environment, the presence of light within the house, the presence of an outside space and the architectural style of the house as most important (in descending order). Because location considers the literal place of the city as well as place within the city (living environment), it was chosen to combine these concepts into one preference. Even though the presence of an outside space was identified as a dealbreaker, this preference still only ranks third in terms of priorities. This has to do with the flexibility within this preference, as made clear by the following statement:

Geen buitenruimte is wel echt een dealbreker voor ons, maar hoe die buitenruimte eruit ziet, maakt dan weer niet zoveel uit. Dus zolang er een buitenruimte is, dan is het verder wat dat dan is, is niet zo'n punt.

Apart from these preferences, a preference for a relatively quiet street (apart from normal city noises) and a green street was mentioned.

Characteristics of the house	Interview				Characteristics of the living environment	Interview			
	A1	A2	A3	B		A1	A2	A3	B
Form of ownership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Living environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Price	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Physical characteristics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housing typology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Social characteristics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Surface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Functional characteristics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of rooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proximity/facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of bedrooms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Scenery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Layout of the house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Presence of nature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
State of maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Architectural style	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Architectural style	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Year of construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Semi-public space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of toilets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kitchen layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parking facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Literal place, location/region	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Outside space	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Peaceful/limited noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Streetscape	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface of the living room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Storage space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Semi-public space (multi-family homes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Presence of light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					

Table 6.4 Preferences referred to by respondents in the interviews (own work, 2026).

6.3.3 Does supply meet preferences of the first-time buyer?

Looking at current supply, respondent A1 indicated that there were multiple new-build developments offering suitable housing in their area. She indicated that supply of new build better fit her demand compared to existing construction, as these houses are already very sustainable and she had no desire for a large renovation. The specific architectural style of the neighbourhood where she bought a house also matched her preferences. Another factor that played a part was that she had no particular preference for a typology or living environment, nor did she have any strict requirements regarding an outdoor space, which means the suitable

options were less limited. About the match of demand and supply in the new-build market, the respondent states the following:

Nou ze zijn nu in Voorhout zijn ze ook heel veel nieuwbouwwoningen aan het maken. Daar hebben we eigenlijk nooit eerder naar gekeken.... ik denk wel dat dat iets was geweest van hadden we dit niet gehad, dan zouden we ons daarvoor hebben ingeschreven. Dus ik denk qua aanbod van nieuwbouwwoningen hier in de buurt wordt best wel veel gebouwd. Dus ik denk dat het aanbod er wat dat betreft wel is.

Respondents A2 indicated that in the existing market, offers had to exceed the asking price to secure a house that meets the requirements, which means that supply in the existing market was present, but insufficient since it was above budget because of the outbidding. This forced the couple to search in the new-build market, where it turned out that supply did not meet their wishes, as supply of ground-based houses was too expensive. New-build properties only became available after making concessions. How supply matches their initial demand is reflected in the following quote:

...ik wilde heel graag eigenlijk 3 slaapkamers en een tuin. Dat waren eigenlijk de enige eisen.... maar ja, goed, nieuwbouw met 3 slaapkamers en een tuin in Haarlem. Dat is sowieso eigenlijk niet te betalen, dus vandaar dat we eigenlijk gewoon naar bestaande bouw gingen kijken.

Also respondent A3 indicated that in the premier search area, new construction was too expensive regarding his wishes. In the search area where he eventually purchased a house, the supply of single-family houses was limited. A lot of supply consisted of apartments and housing for elderly, and was therefore was not suitable. The respondent stated the following about supply in his search area:

Nee, Ik denk niet dat er heel veel aanbod is, want, of je zit al meer appartementen wat je dan veel ziet of het je ziet ook wel veel seniorenwoningen die dan alles grotendeels op de benedenverdieping willen hebben. Echt die eengezinswoningen zijn beperkt.

Despite the fact that respondent B had no preference for new construction, it turns out that, in the existing market, there are more than enough options. This has partly to do with the number of rentals that has become available in the owner-occupied market. Analysing supply in the new-build market, the interviewee indicated that new-build development at preferred location does not meet her preferences regarding the architectural style. However, the increasing number of apartments might be in line with (not cited as one of the most important) preference for an apartment or maisonette.

6.4 Concessions and priorities of first-time buyers

Different barriers that limit the possibilities of first-time buyers were identified. The first barriers are financial resources. These barriers are obvious, since financial resources steer the chances for first-time buyers. Furthermore, supply of unwanted typologies was identified as a barrier to enter the new-build market.

Other limiting factors were the wish to make an offer below the amount of money that allows for exemption of transfer tax and the need to outbid competitors in the housing market. These barriers are only limiting the first-time buyer in the existing market.

For respondent A1, far-reaching concessions were not necessary while purchasing their house. In fact, their house ticks all the boxes she and her partner had in mind. Choices that you might regard as small concessions, not limiting realisation of their preferences, consider the additional work (meerwerk). The interviewee said the following during the interview:

...je kan een badkamer via de bouw erin laten zetten, mocht je die dan casco willen, dan krijg je € 2.000 toe en dan denk je, ja, van die € 2.000 kan je niet zelf een nieuwe badkamer erin zetten. Dus eigenlijk hebben wij al heel snel daar in het besluit gemaakt van OK, we doen sowieso een badkamer via de bouw. Hetzelfde geldt voor de toilet. Gewoon puur van wat ze aanboden. Het was niet lelijk, maar het was niet 100% onze smaak.

Another small concession regards focussing on what they really need now, and not on what might be of use in the future. If they were forced to make concessions, they would have stuck to their list of priorities mentioned in section 6.3.2.

Respondents A2 were forced to make concessions before they could buy a house. These concessions consider the typology of the house and, as they bought an apartment instead of a ground-based house, the presence of a balcony instead of a garden. The presence of three bedrooms was a requirement and they did not want to make concessions regarding the number of bedrooms in their new house. About the order of making concessions, they stated the following:

Ik denk dus toch wel het minste [geneigd om concessies te doen] op die 3 slaapkamers. Ja, omdat we de inderdaad nu ook twee slaapkamers hebben en we daar gewoon op vooruit willen gaan... dus denk ik als je tuin en woonhuis nog van elkaar splits dan toch tuin als eerst.

Despite the concessions, the couple was happy that they could buy an apartment in the area they were looking for a house.

Respondent A3 indicated to have made a concession with regard to the location. This was a result of a lack of suitable supply considering their wishes and budget on the initial location. Because he and his partner had always wanted to live in the place where they eventually bought a house, the impact of the concession might be limited. With regard to this concession, the respondent said the following:

...omdat we eerst ook in Den Haag aan het kijken waren....als je daar echt naar nieuwbouw kijkt, dan zijn de voor een ééngeswoning of een tussenwoning kom je al boven ons budget waarschijnlijk uit. Dus dat werd hem al niet. Nou, toen hebben we nog wel een bestaande woningen gekeken. Maar ja, dan gaat ons voorkeur toch liever uit om dan naar Groningen te gaan en wel een nieuwbouw huis te kiezen. Dus misschien ja, kun je dat zien als een concessie dat je door de hoge prijzen in Den Haag en zo dat je dan toch sneller kijkt naar ja, naar Groningen of iets verder ja, uit de Randstad.

Other concessions consider the additional work and interior. If the need for more concessions would have arisen, they would first make concessions regarding energy measures and the layout of the neighbourhood. He indicated to be less likely to make concessions considering location/living environment (this considers the location of the area they eventually bought) and garden. The number of bedrooms would also be an option to make concessions on.

During the search for a house, no concessions have been made that affect the aforementioned preferences of respondent B. She did not expect that she has to make far-reaching concessions. This has to do with sufficient budget, sufficient supply, realistic demand and the absence of time pressure to buy a house. If concessions would be necessary, this would come down to the order of architectural style, the location/living environment, the presence of light and lastly outside space. A concession that has not to do with aforementioned preferences concerns expanding the search from only houses without leasehold (*erfpacht*) to houses where the leasehold is ending in a certain period of time.

The most mentioned barrier in research by de Bakker et al. (2013) can, in a sense, also be recognised in the results of the interviews. This barrier entails that the price of the desired house is beyond one's budget. For respondents A2, outbidding in the existing market has driven them to the new-build market, where their preferred typology was too expensive. Therefore, the couple decided to buy an apartment instead of a single-family house (a frequently made trade-off according to de Bakker et al. (2013) and Veerhoek (2024)). Also for respondent A3 this was a reason to buy a house at another location. According to de Bakker et al. (2013) switching location is not a common strategy for first-time buyers.

Another result concerns the willingness to make concessions regarding an outside space or garden. Some interviewees indicated presence of a garden as a requirement, while others were more flexible regarding this preference. The varying results correspond with the results of Maaskant (2024) and Veerhoek (2024), which also contradict.

6.5 Conclusion

Aim of chapter six is to identify the order in which first-time buyers make trade-offs. General conclusions regarding the order of trade-offs are impossible to draw, given the number of interviews that were conducted, and the limited trade-offs that were identified. Therefore, the order of trade-offs of the four participants are set out in this conclusion. To draw general conclusions, further research will need to be conducted more interviews.

A remarkable conclusion that can be drawn is that the interviewed first-time buyers do not seem to have many, or unrealistic preferences. These expectations might be tempered because of the heated market. This might explain why a recent study of Veerhoek (2024) indicated the wish for a more luxurious typology or a lower price range, whereas it now seems that expectations are lower. These lower expectations, as a result of the current situation in the housing market, can in turn ensure that the need for concessions decreases. The absence of the need for concessions is contradictory with findings of Aitink (2024) and Maaskant (2024). Two of the four interviewees (A1 and B) indicate that they did not have to make concessions considering their most important preferences, or do not expect to have to make concessions in the future. The most important barrier for respondents A2 and A3 were the high housing prices in combination with a limited budget. Because of this, the respondents had to switch to

another typology or location than initially preferred. This limitation is in line with the most frequent barrier among first-time buyers experienced in the study of de Bakker et al. (2013).

Respondent A1 ended up buying a house that meets all the initial preferences of the couple. The respondent actually has more bedrooms and space than expected. The trade-offs she made consider the additional work and being critical on what is now important for them. Supply of new construction did meet her demand. If concessions had been necessary, the order would be, from most likely to less likely, on outside space, architectural style, sustainability (quality), number of bedrooms and lastly on location.

Respondent B also indicated that she did not expect to have to make concessions. That supply of new construction in her area does not meet her demand, is no issue as she prefers existing housing. There is no need for concessions because of absence of time pressure, sufficient budget and sufficient supply in the existing market. If concessions would be necessary, they would most likely concern the architectural style, the location/living environment, the presence of light followed by the outside space. Outside space turned out to be particularly important for this respondent.

For respondents A2 and A3, concessions were necessary. For respondents A2, different concessions were made. In the existing market, barriers were the budget in combination with the outbidding and supply of (expensive) houses with large surfaces. Another barrier they experienced in the new-build market was that supply for ground-based houses was limited as mostly apartments were built in their search area. This meant that supply in the new-build market did not meet stated preference of these first-time buyers. This misalignment led to concessions considering typology and outside space. According to study of de Bakker et al. (2013), adapting the typology is a common strategy to secure a house. The order in which they would make concessions, would be first on the garden, then the typology, and finally the number of bedrooms. Even though respondent A3 indicated to have made a concession regarding his most important preference, namely the location, it seems like this concession was not very disadvantageous for him, since he always wanted to move to the place where he eventually bought a house. The barrier which has prevented them from purchasing a new-build dwelling at their initial location was that single-family houses were too expensive at this location. Switching location is a strategy that is not often applied according to research of de Bakker et al. (2013). At the location where respondent A3 eventually bought a house, supply was limited. This had mainly to do with other typologies that were constructed. If the need for concessions would have been more present, this would be in the order of (extra) energy measures, the open arrangement of the streets of the neighbourhood, and lastly the number of bedrooms. The eventual location/living environment and presence of a garden were requirements.

Preferences which first-time buyers who had recently bought a house were reluctant to compromise on were location, number of bedrooms, architectural style of the house and neighbourhood, and presence of outside space or garden. Some of these preferences would even be considered as deal-breaker. When interpreting the results it is important to keep in mind that the interviewees are located in various parts of the Netherlands, and that these contexts might affect expectations, priorities and trade-offs.

7. Conclusion and discussion

Last chapter of this thesis contains summary conclusions regarding the sub-questions and the main question, which is twofold as follows: *How does changing housing policy lead to different supply in the new-build market, and to what extent does this supply meet stated and revealed preferences of first-time buyers?* In the first section, the sub-conclusions set out in chapters four, five and six are answered, and a conclusion for the main question is drawn. The second section of chapter seven consists of a discussion. The discussion is divided into a reflection regarding limitations and research approaches, and recommendations for researchers, governmental bodies and developers. These recommendations offer suggestions that might improve supply in the future and ensure that demand from first-time buyers can be met.

7.1 Conclusion

7.1.1 Answers to the sub-questions

To answer the main questions, four sub-questions were established and answered. First-sub-question provides deeper insight into policy and how policy changes lead to different supply in the housing market. It was found that, to solve the housing crisis, policy on national level is implemented to steer new construction. This way, the government regains control after years of being absent. It could also be concluded that that the *Nationale Woon- en Bouwagenda* and its six programmes are steering documents for housing production and focus on the concepts availability, affordability and quality. The programmes are not equally relevant for the supply for the first-time buyer.

As there is a focus on affordability, large part of new build will be classified as affordable (owner-occupied) housing, which improves chances for the first-time buyer. Measures like performance agreements (as they state the share of new construction that should be affordable), *KoopStart* and *Nationale Fonds Betaalbare Koopwoningen* (not discussed in the *Nationale Woon- en Bouwagenda*) allow first-time buyers to purchase an affordable house. Also the large share of development that consists of the typology apartments and building smaller results in more affordable housing. Examples of measures regarding availability are performance agreements (as they state how much and where construction takes place) and the *woningbouwimpuls*. However, the number of new build is lagging behind and housing mobility is still limited. Even though the total number of new build is lagging, it can be expected that new policies (indirectly) lead to building affordable, smaller, more apartments and to inner-city development. These four points might result in a better match between demand from first-time buyers and supply in the new-build market, and might therefore benefit the position of this group.

Aim of the second and third sub-questions was to research to what extend the new supply meets stated and revealed preferences of first-time buyers, and if those preferences changed over time. In order to do so, different preferences in the WoON 2021 and WoON 2024 databases were studied. As well in the WoON 2021 analysis, as in the WoON 2024 analysis, most differences between stated and revealed preferences were significant. This indicates that a discrepancy between the demand from first-time buyers and supply in the new-build market exists. Significant differences for stated preferences between 2021 and 2024 were identified for the preferences 'housing typology', 'number of rooms' and 'price range', but not for the preference 'municipality size' and 'garden'. This finding indicates that some preferences of first-time buyers have developed over time.

Not all studied preferences were given equal consideration in the report. Less attention has been paid to the preferences 'garage or carport', 'parking facilities', 'number of rooms' and 'study'. However, it is reasonable to assume that the effects of the four aforementioned points negatively impact the presence of these preferences. More attention has been paid to remarkable results. The most remarkable results consider the living environment, housing typology, preference for a garden and desired price range, since those results sometimes contradict to findings in other literature. However, it is important to keep in mind that other literature relates to different contexts, like a specific place in the Netherlands, which makes a comparison less reliable.

From the analysis of the preference 'type of living environment' in the WoON 2021, it can be concluded that just over half the first-time buyers have the preference to live outside the city (in the categories 'green urban', 'village centre' or 'rural living'). Only a small part of the respondents indicated to have a preference to live in the city centre (10.1%). For at least three categories, a mismatch exists, and the difference between the stated and revealed situation is significant for this preference.

Another remarkable result was present analysing the preference for a certain housing typology. As well from the WoON 2021 analysis, as from the WoON 2024 analysis it can be concluded that most first-time buyers have the stated preference for the typology apartment followed by the preference for terraced houses. Furthermore, the number of first-time buyers who have the a stated preference for apartments and terraced houses seems larger in the WoON 2024 analysis compared to the WoON 2021 analysis. This difference is significant.

Results for the preference for a garden correspond in the WoON 2021 and WoON 2024 analyses. The biggest group of respondents indicated that they have no preference or no opinion regarding the presence of a garden. Although the difference is insignificant, it seems that the number of individuals who prefer a house with garden is smaller in the WoON 2024 analysis compared to the WoON 2021 analysis.

Last remarkable result considers the preferred price range. From the analysis of the WoON 2024 it appears that more first-time buyers prefer to buy a house in lower price ranges, while in practice less first-time buyers expect to sell their house for a price matching those lower price ranges (maximum of €299,999). Furthermore, a significant difference in stated preference between the WoON 2021 and WoON 2024 analyses can be identified. In the WoON 2021 at least 79.5% had the wish to buy a house below average price in 2021, while in the WoON 2024 at least 66.0% had the wish to buy a house below the average price in 2024. This means that more people had the stated preference to buy a more expensive house in 2024.

Aim of the fourth sub-question was to identify trade-offs first-time buyers make as they were searching for a new-built dwelling. To answer this last sub-question, four interviews were conducted. Contradictory to what literature suggests, not all first-time buyers indicated that they have had to make concessions as they were purchasing a house (at least not on their most important preferences). Because of the limited number of interviews and limited trade-offs, it was impossible to find a pattern in the order of trade-offs.

Two first-time buyers (A1 and B) indicated that they did not have to or did not expect that they have to make concessions regarding their priorities. If respondent A1 was forced to make concessions regarding her most important preferences, the order would be, from most important to less important, on outside space, architectural style, sustainability (quality), number of bedrooms and lastly on location. If respondents B was forced to make concessions regarding her priorities, the order would be, architectural style, the location/living environment, the presence of light followed by the outside space. Outside space turned out to be particularly important for this respondent.

Respondents A2 indicated that they have had to make concessions regarding typology and the presence of a garden. Current policy and its focus construction of apartments may have been disadvantageous for these first-time buyers. If the respondent was forced to make more concessions, this would be in the following order: Garden, typology, and finally the number of bedrooms.

Respondent A3 indicated that he has had to make concessions regarding location. At the initial location, the respondent was searching for existing construction as new construction was too expensive. Current policy focussing on building affordable could have been a favour of the first-time buyer. If the respondent was forced to make more concessions, this would be in the following order: (Extra) energy measures, the open arrangement of the streets of the neighbourhood, and lastly the number of bedrooms. The eventual location/living environment and presence of a garden were a requirement for the respondent.

7.1.2 Answer to the main question

Based on the conclusions of the four sub-questions, the main question can be answered. Policy changes are reflected in demand, as, among other things, new-build developments are mainly inner-city construction projects of which at least two-thirds are affordable. For owner-occupied housing this means that, in 2025, a house should be priced below €405,000. These policy changes also indirectly affect supply, as maintaining housing affordable has led to developing smaller dwellings (and gardens) and more construction of the typology apartments.

The quantitative and qualitative results regarding the preference for a certain living environment are varying. According to the WoON 2021 analysis, most first-time buyers have the stated preference to live outside the city (centre), while the results of the interviews indicated that three of the four respondents had a preference to live in, or closer to the city centre. From chapter three it could be concluded that a lot of new construction is part of inner-city development, which aligns with preferences derived from the interviews. However, since the number of interviews is limited, and the quantitative results can be considered as more reliable and representative. Even though a large group prefers to live close to or in the city (centre), it can be concluded that inner-city construction does not align with the stated preference of most first-time buyers.

The construction of many apartments is in line with the outcomes of the quantitative analysis of the WoON 2024 analysing the stated preference regarding housing typology. However, from the interviews, different preferences regarding housing typologies can be derived. One respondent indicated to have no preference for a certain typology and at least two indicated to have a stated preference for a ground-based house. One interviewee indicated that ideally, she would have a terraced house at the preferred location, but since this was impossible it was never part of their search. From the WoON 2024 analysis it can also be concluded that the

demand for terraced houses is relatively big. However, by far largest part of new construction consists of apartments, and the share of terraced houses is much smaller. Therefore, it can be concluded that the focus on inner-city construction (and therefore the focus on apartments) is an advantage for the large group of first-time buyers who prefers an apartment, but is a disadvantage for the considerable group of individuals who prefer a single-family house.

Analysing the preference for a garden, from the WoON 2021 and WoON 2024 analyses, it can be concluded that a large part of the respondents does not want a garden or has no specific wish or opinion regarding this preference. However, the importance of an outside space appeared from the interviews. Three of the four respondents indicated that presence of an outside space was a requirement. For one of those, specifically a garden was a requirement. For only one of the respondents, the presence of an outside space was no requirement. In this case, she would consider the house suitable as an intermediate stage. From the quantitative analyses as well as from the interviews, it can be concluded that the focus on inner-city construction (and therefore on apartments) is an advantage for the large group of first-time buyers who do not consider a garden as a requirement, but is a disadvantage for the smaller (but still large) group that does think the presence of a garden is a requirement.

Lastly, the focus on constructing a large share of affordable housing meets the stated preference of first-time buyers, as from the quantitative analysis of the WoON 2024, it can be derived that the vast majority of the group first-time buyers prefers a house below the price of €400,000. Despite the fact that all the interviewees indicated to prefer a house in a higher category (three of the four respondents indicated to prefer a house in the highest category studied in the quantitative analysis, while one respondent indicated to prefer a house in the second-highest category), it cannot be concluded that first-time buyers prefer a house in a higher category, due to the lack of data. To keep housing affordable, large part of these owner-occupied housing will be smaller or will consist of apartments. It should be noticed that the price of a relatively large part of the planned housing is still undefined.

To conclude, new policies (indirectly) lead to building affordable, smaller, more apartments and to inner-city development. From the WoON analyses, it can be derived that stated and revealed preferences of first-time buyers do not match for most studied preferences. In the WoON 2021, the difference between stated and revealed preference is significant for the preferences municipality size, type of living environment, housing typology, number of rooms and the presence of a garden. Only for the preferred price range, no significant difference was identified. In the WoON 2024, the difference between stated and revealed preference is significant for the preferences municipality size, housing typology, number of rooms, presence of a study, presence of a garden, presence of garage or carport, presence of a parking space and the preferred price range. From the interviews it may be concluded stated and revealed preferences of the interviewees did match to certain extent. Two of the interviewees indicated that they did not have to make or did not expect to have to make concessions regarding their most important preferences. However, one of these interviewees regards a first-time buyer who is still looking for a house and is not interested in new construction, and the limited number of interviews do not allow for a reliable generalization. Therefore, from the quantitative analyses and the interviews, it can be concluded that the match between stated and revealed preferences is very limited, and that a significant development over time regarding stated preferences can be identified for at least three of the five studied preferences.

7.2 Discussion

7.2.1 Reflection

Overall, the four sub-questions fit well together, and answer the main question based on a focused study that could be conducted in half a year. The study combined empirically a mixed methodology of interview and survey data to provide state of the art knowledge of preferences of first-time buyers for new-build housing. It also conducted a policy analysis on the (potential) impact of new policies in achieving a better match between supply and demand. These different inputs for the analyses have their own strengths and weaknesses.

First of all, the new policies hold promises for more affordable housing for first-time buyers, but their realisation is coping with lags. This discrepancy substantiates that plans and actual implementation are two different things, and that the effects of policy are hard to determine. The different monitors analysed reflecting on policies and their progress helped to identify effects of those new policies. These monitors make the long-term strategies of the government clearer and highlight where policies are effective or fall short. The monitors also allowed for making predictions for the first-time buyer in the future.

Another limitation of the policy analysis is that, even when effects of new policies are clear, consequences for the first-time buyer are still hard to determine. For example, as a result of the focus on affordability, a lot of apartments are developed. Even though it was concluded that realisation of this typology might be beneficial for the first-time buyer, it was found that this typology is less suitable for *doorstromers*. This might limit housing mobility and might therefore also be disadvantageous for the first-time buyer. It can be concluded that it is hard to say to what extent a policy effects the position of the first-time buyer, as a measure might influence multiple parameters.

Last critical note regarding the policy analysis is that focus is on the *Nationale Woon- en Bouwagenda*. Other measures, like *Nationale Fonds Betaalbare Koopwoningen* (NFBK) that are not implemented in this agenda are either not discussed or given insufficient attention. Also measures that influence the rental market are given insufficient attention, while these measures might also affect the owner-occupied market, as these markets are closely connected.

Also, for the quantitative component of the study, multiple critical points should be addressed. First, a definition of a first-time buyer was established to make this variable measurable. In practice, however, it is uncertain whether these cases selected from the datasets truly represent first-time buyers. It is possible that these individuals have become a homeowner in an early stage of their life, which impacts reliability of results. An advantage of using such approach in quantitative research is that it allows for conducting research on a particular group, in a relatively straightforward way, as it is likely that most individuals in this group are first-time buyers.

Another critical note regards the comparison between stated and revealed preferences. The stated preference considers the preference of first-time buyers who have a wish to move to a new-build dwelling, while the revealed preference considers first-time buyers that just moved to an existing or newly built dwelling. This means that the variables of the comparison are not exactly the same. The benefit of using this definition of revealed preference is that it allowed for making more comparisons and results. The group of first-time buyers that just moved to a newly built house was too small and did not allow for multiple comparisons.

An advantage of doing quantitative research regarding preferences is that it allowed more data compared to qualitative research (given that it is unlikely to obtain data from thousands of respondents within six months). A thing that went well while writing the report regards condensing the large amount of data obtained during the research. Although the volume of data was large, it was summarised fairly concisely in the report. However, another point of discussion regards the availability of quantitative data relating to the living environment. As this data was limited, the relevancy and the preference of the first-time buyer regarding this concept was underemphasized.

Further critical notes consider the qualitative part of this study. The clearest factor is the limited number of interviews that was conducted. Therefore, it was hard to establish a pattern in how first-time buyers make concessions. However, the interviews still offered value, since results show that outcomes of the quantitative WoON analyses do not always correspond with what is observed in practice. The interviews therefore contribute to a critical perspective, despite the limited generalisation.

Furthermore, all the first-time buyers studied that just bought a house, bought a house together with a partner. Partly for that reason, they had quite high budgets as they were looking for a house. These higher budgets might also influence the limited need for concessions. This studied group might therefore be less representative for the average first-time buyer. Quality of the research would be improved if also single first-time buyers would be interviewed.

Other limitations relate to identifying the respondents' preferences. Respondents indicated that they considered certain points to be important as they were looking for a house, while in practice, other factors are likely to influence their decision making. For example, no one indicated their preferred price range as top priority, while this is a critical component while buying a house (research of de Bakker et al. (2013) states that a too expensive house is the most important barrier for the first-time buyer). An advantage of identifying preferences while doing interviews was that it allowed interviewees to bring up preferences. This allowed for obtaining a better idea of what people really find important compared to identifying preferences in a quantitative database.

Last critical notes regard the literature used while writing the report. First of all, a significant part literature used in this study is quite outdated. Current pressure on the housing market might influence the demand from the first-time buyer, and barriers might be different from previous years. Furthermore, the context of the literature used, and the context of this study differs. This study focuses on the Netherlands as a whole. The quantitative WoON datasets cover a broad cross-section of society, while the interview respondents are located in various locations across the Netherlands and empirical findings focused on contexts such as Utrecht, the Randstad and the Achterhoek region. These distinct locations have different economies, compositions of society and situations in the housing market. Therefore, boundaries and trade-offs found in context of the Achterhoek might be different compared to, for example, the Randstad. Quality of the research would improve if similar contexts would be compared.

7.2.2 Recommendations

Different recommendations can be done based on the results and reflection of this study. These recommendations can be used to solve the mismatch between supply in the new-build market, and demand from the first-time buyer. However, it is important to keep in mind that focus of this study was on stated preference. As this preference might be unrealistic,

establishing a complete alignment between supply and demand might be impossible. The recommendations consider research- and practical recommendations.

First research recommendation considers obtaining more knowledge of housing preferences in general. A lot of literature used in this thesis is quite outdated, while this topic is particularly relevant at a time where new construction is a crucial element to solve the current housing crisis. Acquiring an understanding of what people's wishes are might lead to a new construction stock of high quality. Also, specific knowledge about wishes regarding the living environment is lagging in the quantitative database, while from the interviews it can be derived that preferences regarding this matter are quite often referred to. From this, it can be concluded that for individuals (in this case first-time buyers) the living environment is important. Therefore, it is relevant to obtain more knowledge regarding this matter.

Second research recommendation would be to focus on a specific geographical location or region. By doing this, the context of the focus group is similar, which would help to explain the differences between results of different research, and would result in more reliable results.

A third research recommendation concerns the trade-offs of first-time buyers. In this thesis, only four interviews were conducted, which made it difficult to draw conclusions regarding the order in which first-time buyers make these trade-offs. Larger research could result in a certain pattern, which might allow for clearer answers to the fourth sub-question. Furthermore, from analysis of the interviews conducted, it appeared that the need for making concessions was limited. This is contrary to expectations. It is relevant to obtain deeper insight in why this need was absent. This research suggests that this might be because expectations are adjusted because of the heated market and because all interviewees bought a house with a dual income, but this could not be confirmed with certainty, due to limited data. Conducting more interviews might provide more data regarding this matter.

Last recommendation for further research regards the first-time buyer who prefers existing construction. It might be useful to research whether supply in the new-build market does not meet demand from this first-time buyer, or that other barriers, like long waiting times, are considered in this choice for an existing dwelling. Perhaps certain solutions might make this market interesting for these first-time buyers.

First practical recommendation would be for provinces and municipalities to realise construction close to- or in the city centre. According to empirical findings and qualitative results, demand for these locations is high. This is in line with policies and expected new construction. Another suggestion regarding location is to realise new construction in villages. According to literature, a relatively small number of new build is planned in the environmental typology 'village', while the quantitative analysis of WoON 2021 shows that almost 25% of first-time buyers has a preference to live in the village centre. To align demand and supply, supply in villages should not fall behind, and construction at these locations should be incorporated in arrangements.

Second practical recommendation would be for developers and considers the typology of new-build dwellings. Current construction mainly focuses on apartments. From the literature, it could be derived that, in relative terms, construction of terraced houses is lagging compared to apartments. However, from the quantitative and qualitative results it can be concluded that

there is considerable demand for terraced houses. Therefore, building more single-family houses instead of mainly apartments, contributes to a better alignment between demand and supply. It could be debated whether this is desirable and doable considering spatial planning.

Another recommendation for developers considers the price range. From the quantitative analysis of WoON 2024 it can be concluded that the vast majority of people prefer a house with a maximum price of €399,999, and that the largest group prefers a house priced between €300,000-€399,999. To meet demand as effectively as possible, it is important that the share of affordable housing in new construction will be significant. Even though the respondents of the interviews indicated to prefer a higher price range, this generalization is very limited and therefore less relevant to make recommendations in response to this.

A last practical recommendation for governmental bodies and developers regards expanding the focus on only *doorstromers* to *doorstromers* and first-time buyers for new construction. Interviewees A1, A2 and A3 indicated that they would advise other first-time buyers to buy a new-build dwelling. Two interviewees mentioned that this living environment is very suitable for the target group since it attracts a lot of young people. One interviewee mentioned that, because of the focus on small (and therefore more affordable) apartments, new build offers opportunities for single first-time buyers. Because of the opportunities for this group, first-time buyers should not be overlooked while developing new build.

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Appendix A: Interviews: Informed consent form and questions

Opening statement interview

U wordt uitgenodigd om deel te nemen aan een onderzoek genaamd **The road from stated to revealed preference**. Dit onderzoek wordt uitgevoerd door **Puck Ruigrok** van de TU Delft voor een **scriptie voor de master track Management in the Built Environment**.

Het doel van dit onderzoek is **om te onderzoeken hoe veranderende wetgeving wat betreft wonen en bouwen het aanbod op de woningmarkt beïnvloedt en op welke manier dit aanbod de voorkeuren van starters tegemoet komt** en zal ongeveer **45** minuten in beslag nemen. De data zullen gebruikt worden voor **het beantwoorden van onderzoeksvragen en het schrijven van een masterscriptie. Deze masterscriptie zal na afronding gepubliceerd worden in de repository van de TU Delft**. U wordt gevraagd om **mee te werken aan een interview wat de onderwerpen woonvoorkeuren en concessies betreft**.

Zoals bij elke (online) activiteit is het risico van een databreuk aanwezig. Wij doen ons best om uw antwoorden vertrouwelijk te houden. We minimaliseren de risico's door **de verkregen data resulterend uit de interviews te anonimiseren en persoonlijke data zoals namen, e-mailadressen en telefoonnummers enkel te gebruiken voor administratieve doeleinden (zoals het organiseren van het interview)**. Er wordt **secuur omgegaan met deze persoonlijke data**. In geval van online interview zal de opname van het gesprek zullen worden geslagen op een veilige server van de TU Delft. In geval van een offline interview zal de opname van het gesprek eerst tijdelijk worden opgeslagen op de harddrive van een extern apparaat, waarna het zal worden opgeslagen op de TU Delft OneDrive. Na transcriptie en anonymisering zullen de opnames worden verwijderd en zullen de anonieme transcripten worden opgeslagen op de veilige server van de TU Delft.

Uw deelname aan dit onderzoek is volledig vrijwillig, en **u kunt zich elk moment terugtrekken zonder reden op te geven**. U bent vrij om vragen niet te beantwoorden. **U zult het resultaat van het transcript ontvangen, waarna u 30 dagen hebt om sommige antwoorden te corrigeren**.

Master student:
Puck Ruigrok

Responsible supervisor
Marietta Haffner

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
A: GENERAL AGREEMENT – RESEARCH GOALS, PARTICIPANT TASKS AND VOLUNTARY PARTICIPATION		
1. Ik heb de informatie over het onderzoek gedateerd [DD/MM/2026] gelezen en begrepen, of deze is aan mij voorgelezen. Ik heb de mogelijkheid gehad om vragen te stellen over het onderzoek en mijn vragen zijn naar tevredenheid beantwoord.	<input type="checkbox"/>	<input type="checkbox"/>
2. Ik doe vrijwillig mee aan dit onderzoek, en ik begrijp dat ik kan weigeren vragen te beantwoorden en mij op elk moment kan terugtrekken uit de studie, zonder een reden op te hoeven geven.	<input type="checkbox"/>	<input type="checkbox"/>
<p>3. Ik begrijp dat mijn deelname aan het onderzoek de volgende punten betekent</p> <ul style="list-style-type: none"> • Dat dit gesprek wordt opgenomen, en data bestaande uit een audiofragment zal worden getranscribeerd en geanonimiseerd. Het audiofragment zal tijdelijk worden opgeslagen op een extern apparaat en daarna worden verplaatst naar de TU Delft OneDrive, of indien het interview online is afgenomen, meteen worden opgeslagen op de TU Delft OneDrive. Opnames zullen tot transcriptie worden opgeslagen op de TU Delft OneDrive. Na transcriptie zullen de opnames worden verwijderd en zullen de anonieme transcripten op veilige opslag van de TU Delft worden opgeslagen. De geanonimiseerde transcripten zullen gebruikt worden voor analyses voor het beantwoorden van onderzoeksvragen van masterscriptie. • Dat het gesprek het onderwerp woonvoorkeuren van starters betreft. 	<input type="checkbox"/>	<input type="checkbox"/>
5. Ik begrijp dat de studie juni 2026 eindigt, als de scriptie moet zijn afgerond.	<input type="checkbox"/>	<input type="checkbox"/>
B: POTENTIAL RISKS OF PARTICIPATING (INCLUDING DATA PROTECTION)		
7. Ik begrijp dat mijn deelname betekent dat er persoonlijke identificeerbare informatie en onderzoeksdata worden verzameld, met het risico dat ik hieruit geïdentificeerd kan worden. Mogelijke risico's wat betreft re-identificatie zijn beperkt omdat het onderzoek woonvoorkeuren en geen gevoelige onderwerpen betreft.	<input type="checkbox"/>	<input type="checkbox"/>
<p>8. Ik begrijp dat binnen de Algemene verordening gegevensbescherming (AVG) een deel van deze persoonlijk identificeerbare onderzoeksdata als gevoelig wordt beschouwd, namelijk</p> <ul style="list-style-type: none"> • Naam • E-mailadres • Telefoonnummer • Handtekening <p>Deze data zijn nodig voor administratieve doeleinden. Tijdens het interview zullen verder geen gevoelige onderwerpen aan bod komen, en het transcript van het interview zal worden geanonimiseerd.</p>	<input type="checkbox"/>	<input type="checkbox"/>
9. Ik begrijp dat de volgende stappen worden ondernomen om het risico van een databreuk te minimaliseren, en dat mijn identiteit op de volgende manieren wordt beschermd in het geval van een databreuk.	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
<ul style="list-style-type: none"> • Als het interview offline wordt afgenomen zal het originele audiobestand worden verwijderd van tijdelijke opslag, en op de TU Delft OneDrive worden opgeslagen. Als het interview online plaatsvindt zal het bestand enkel in de TU Delft OneDrive worden opgeslagen. Na transcriptie worden alle audiofragmenten verwijderd. • De ondertekende informed consent forms zijn opgeslagen op de TU Delft OneDrive en verzegeld met een wachtwoord. Nadat de thesis is afgerond zullen de informed consent forms binnen 1 maand worden verwijderd. • De persoonlijke data zijn enkel toegankelijk voor de onderzoeker en scriptiebegeleiders. Nadat de thesis is afgerond zal deze data binnen 1 maand worden verwijderd. • De getranscribeerde bestanden worden geanonimiseerd. 		
10. Ik begrijp dat de persoonlijke informatie die over mij verzameld wordt en mij kan identificeren, zoals naam, e-mailadres en telefoonnummer, niet gedeeld worden buiten het studieteam.	<input type="checkbox"/>	<input type="checkbox"/>
11. Ik begrijp dat de persoonlijke data die over mij verzameld wordt, vernietigd wordt binnen 1 maand na afronding van de thesis.	<input type="checkbox"/>	<input type="checkbox"/>
C: RESEARCH PUBLICATION, DISSEMINATION AND APPLICATION		
12. Ik begrijp dat na het onderzoek de geanonimiseerde informatie gebruikt zal worden voor het analyseren van data en het schrijven van een master scriptie. Quotes worden mogelijk gebruikt om het narratief te ondersteunen (zie volgende vraag).	<input type="checkbox"/>	<input type="checkbox"/>
13. Ik geef toestemming om mijn antwoorden, ideeën of andere bijdrages anoniem te quoten in resulterende producten.	<input type="checkbox"/>	<input type="checkbox"/>
D: (LONGTERM) DATA STORAGE, ACCESS AND REUSE		
16. Ik geef toestemming om de geanonimiseerde bevindingen over woonvoorkeuren en mogelijke concessies die over mij verzameld worden, te gebruiken om de onderzoeksvragen van de masterscriptie te beantwoorden. Deze scriptie zal gearchiveerd worden in de TU Delft Repository opdat deze gebruikt kunnen worden voor toekomstig onderzoek en onderwijs.	<input type="checkbox"/>	<input type="checkbox"/>
17. Ik begrijp dat de toegang tot deze repository openbaar toegankelijk is.	<input type="checkbox"/>	<input type="checkbox"/>

Handtekeningen

Naam deelnemer	Handtekening	Datum
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Ik, **de onderzoeker**, verklaar dat ik de informatie en het instemmingsformulier correct aan de potentiële deelnemer heb voorgelezen en, naar het beste van mijn vermogen, heb verzekerd dat de deelnemer begrijpt waar hij/zij vrijwillig mee instemt.

Naam onderzoeker	Handtekening	Datum
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Puck Ruigrok

Interview questions for a first-time buyer that is searching for a house

(Blue questions relate specifically to remarkable results from the quantitative analysis)

1. Introductie

- a. (Het informed consent formulier is van tevoren gemaïld en getekend)
- b. Korte introductie, zijn er nog vragen aan de hand van het informed consent formulier?
- c. Vraag toestemming om de opname te starten

2. Algemene vragen: Kennismaken en introductie tot het onderwerp

- a. Hoe ervaar je de zoektocht naar een (nieuwbouw)woning?
- b. Ben je alleen/samen op zoek naar een woning? Hoe beïnvloedt dit de keuzes die je maakt tijdens een zoektocht naar een woning?
- c. Ben je al lang aan het zoeken naar een woning, en hoe ben je aan het zoeken?
- d. Heb je een voorkeur voor bestaande bouw of nieuwbouw, en is deze over de tijd veranderd?
 - i. ALS ER VOORKEUR IS VOOR NIEUWBOUW:
 1. Waarom voorkeur voor nieuwbouw?
 2. Waarom geen voorkeur voor bestaande bouw?
 3. Wat vind je belangrijk in een nieuwbouwproject?
 4. Verwacht je nadelen te ervaren voor het kopen van een nieuwbouwwoning? (Denk bijvoorbeeld aan extra kosten, lange wachttijden etc.)
 - ii. ALS ER VOORKEUR IS VOOR BESTAANDE BOUW:
 1. Waarom voorkeur voor bestaande bouw?
 2. Waarom geen voorkeur voor nieuwbouw?
 3. Heeft je voorkeur voor bestaande bouw ook te maken met het proces van het kopen van een nieuwbouwwoning en op welke manier?

3. Woonvoorkeuren: Vragen hebben betrekking tot de wensen voor ideale woning, vóór eventuele concessies

- a. Wat zijn voor jou de allerbelangrijkste voorkeuren voor de woning zelf tijdens de zoektocht naar een woning?
- b. Waarom vind je deze voorkeuren belangrijk?
- c. Heb je een voorkeur voor een bepaald type woning? (Appartement/grondgebonden etc.)
- d. In welke prijsklasse ben je op zoek?
- e. Hoe belangrijk is de buitenruimte voor jou?
- f. (Vind je het lastig dat je een eventuele nieuwbouwwoning niet kan bezichtigen, en waarom?)
- g. Wat zijn voor jou de allerbelangrijkste voorkeuren voor woonomgeving tijdens de zoektocht naar een woning?
- h. Op welke locatie wil je graag wonen? (Centrum stedelijk/buiten centrum/groen stedelijk/centrum dorps/landelijk?)
- i. Waarom vind je deze voorkeuren belangrijk?

- j. (Vind je het lastig dat de woonomgeving van een eventuele nieuwbouwwoning nog niet af of aanwezig was, en waarom?)
- k. Is er aanbod wat betreft jouw woonvoorkeuren?
- l. Speelt de woonomgeving of de woning zelf een belangrijkere rol tijdens het zoeken voor een woning en waarom?
- m. Sluiten sommige voorkeuren van jullie beter aan op een bestaande woning of op een nieuwbouwwoning?
- n. Zit er een volgorde in welke voorkeuren het meest belangrijkst zijn voor jou?

4. Concessies: Vragen gaan over welke voorkeuren de starters het belangrijkst vinden en welke prioriteiten er zijn

- a. Is tijdens de zoektocht naar een woning de nood voor concessies ontstaan, en welke barrières hebben hiervoor gezorgd?
- b. Welke concessies waren dit of verwacht je te moeten doen, en waarom?
- c. Hoe denk je dat de huidige woningmarkt deze nood heeft beïnvloed?
- d. Zou je eerder concessies doen wat betreft woonomgeving of de woning zelf?
- e. Als we voorkeur X, Y, Z etc. nemen, op welke concessie zou je dan het eerst concessies doen, en op welke het laatst?
- f. Welk woonvoorkeur of welke woonvoorkeuren zijn voor jou zo belangrijk dat concessies hierop een dealbreaker zouden zijn?

5. Afsluitende vragen

- a. Heb je een voorkeur voor sneller verhuizen of voor langer sparen om eventuele (financiële) barrières te verlagen?
- b. Ben ik nog iets vergeten/wil je nog iets toevoegen?

Interview questions for a first-time buyer that just bought or moved into a newly built house:

(Blue questions relate specifically to remarkable results from the quantitative analysis)

1. Introductie

- a. (Het informed consent formulier is van tevoren gemaïld en getekend)
- b. Korte introductie, zijn er nog vragen aan de hand van het informed consent formulier?
- c. Vraag toestemming om de opname te starten

2. Algemene vragen over nieuwbouw: Kennismaken en introductie tot het onderwerp

- a. Hoe heb je de zoektocht naar een nieuwbouwwoning ervaren?
- b. Heb je alleen of samen een woning gekocht? Hoe heeft dit de zoektocht naar een woning beïnvloed?
- c. Ben je lang op zoek geweest naar een woning, en ben je op zoek geweest? (Denk aan welke platformen hebben ze gebruikt)
- d. Had je tijdens de zoektocht een voorkeur voor bestaande bouw of voor een nieuwbouwwoning, en is deze over de tijd veranderd?
 - i. ALS ER EEN VOORKEUR WAS VOOR NIEUWBOUW:
 1. Waarom had je voorkeur voor nieuwbouw?
 2. Waarom had je geen voorkeur voor bestaande bouw?
 3. Wat vond/ vindt je belangrijk in het nieuwbouwproject waar je gaat wonen/nu wonen?
 4. Heb je nadelen ervaren door het kopen van een nieuwbouwwoning, zo ja welke? (Denk bijvoorbeeld aan extra kosten, lange wachttijden etc.)
 - ii. ALS ER EEN VOORKEUR VOOR BESTAANDE BOUW:
 1. Waarom had je een voorkeur voor bestaande bouw?
 2. Waarom had je geen voorkeur voor nieuwbouw?
 3. Had je voorkeur voor bestaande bouw ook te maken met het proces van het kopen van een nieuwbouwwoning?
 4. Heeft de nog niet bestaande woonomgeving hier invloed op en hoe?
 5. Waarom ben je uiteindelijk toch naar een nieuwbouwwoning verhuisd?

3. Woonvoorkeuren; Vragen hebben betrekking tot de wensen voor ideale woning, vóór eventuele concessies

- a. Wat waren voor jou de allerbelangrijkste voorkeuren voor de woning zelf tijdens de zoektocht naar een (nieuwbouw)woning?
- b. Waarom vond je deze voorkeuren belangrijk?
- c. Had je een voorkeur voor een bepaald type woning? (Appartement/grondgebonden etc.)
- d. In welke prijsklasse zijn jullie op zoek geweest?
- e. Hoe belangrijk was de buitenruimte voor jou?
- f. Vond je het lastig dat je de woning zelf niet kon bezichtigen?

- g. Wat waren voor jou de allerbelangrijkste voorkeuren voor woonomgeving tijdens de zoektocht naar een nieuwbouwwoning?
- h. **Komt de locatie overeen met waar je graag had willen wonen? (Centrum stedelijk/buiten centrum/groen stedelijk/centrum dorps/landelijk)**
- i. Waarom vond je deze voorkeuren belangrijk?
- j. Vond je het lastig dat deze woonomgeving nog niet af of aanwezig was, en waarom?
- k. Speelde de woonomgeving of de woning zelf een belangrijkere rol tijdens het zoeken voor een woning en waarom?
- l. Was er aanbod wat betreft jullie woonvoorkeuren?
- m. Sloten sommige voorkeuren voor jou/jullie beter aan op een bestaande woning of op een nieuwbouwwoning?
- n. Zit er een volgorde in welke voorkeuren het meest belangrijkst zijn voor jou/jullie?

4. Concessies: Vragen gaan over welke voorkeuren de starters het belangrijkst vinden en welke prioriteiten er zijn

- a. Is tijdens de zoektocht naar een woning de nood voor concessies ontstaan, en welke barrières hebben hiervoor gezorgd?
- b. Welke concessies heb je uiteindelijk moeten doen en waarom?
- c. Denk je dat de woningmarkt deze nood heeft beïnvloed?
- d. Als we voorkeur X, Y, Z etc. nemen, op welke concessie zou je dan het eerst concessies doen, en op welke het laatst?
- e. Waarom heb je, ondanks de concessies, toch besloten de woning te kopen?
- f. Heb zogenaamde dealbreakers ondervonden waardoor opties voor andere woningen zijn afgevallen?

5. Afsluitende vragen

- a. Ben je teleurgesteld door gedane concessies of beïnvloeden de uiteindelijke concessies het uiteindelijke woonplezier?
- b. Heb je achteraf spijt van een bepaalde concessie, of had je liever ergens anders een concessie op gedaan?
- c. Zou je starters aanraden een nieuwbouwwoning te kopen en waarom?
- d. Ben ik nog iets vergeten/wil je nog iets toevoegen?

Appendix B: Results WoON 2021

General preferences of first-time buyers

Living environment	Stated WoON 2021	Difference	Revealed WoON 2021
City centre	9.9%	3.6%	6.3%
Suburban	35.5%	5.1%	40.6%
Green urban	13.0%	0.9%	12.1%
Village centre	27.9%	2.9%	30.8%
Rural living	13.7%	3.5%	10.2%
Total	100.0%	-	100.0%
Total count	824,894		512,627
New construction or existing construction			
Preference for new construction/living in new construction	17.0%	4.9%	12.4%
No preference for new construction/living in existing construction	47.0%	40.6%	87.6%
No preference/no opinion	36.0%	-	-
Total	100.0%		100.0%
Total count	549,714		512,627
Housing typology			
Detached house	16.9%	9.0%	7.9%
Semi-detached house	15.1%	1.7%	13.4%
Corner house	9.9%	6.1%	16.0%
Terraced house and other	30.1%	5.9%	36.0%
Apartment	28.1%	1.3%	26.8%
Total	100.0%	-	100.0%
Total	786,062		512,627
Number of rooms			
1-2 rooms	6.4%	1.5%	7.9%
3 rooms	24.5%	5.4%	19.1%
4 rooms	27.4%	0.5%	26.9%
5 rooms	22.6%	5.6%	28.2%
6+ rooms	13.4%	4.5%	17.9%
No preference/no opinion	5.6%	-	-
Total	100.0%	-	100.0%
Total	564,624		512,628

Garden			
Yes	27.7%	47.3%	75.0%
No	31.5%	27.4%	4.1%
No preference/no opinion	40.7%	-	-
Total	100.0%		79.1%
Total	159,925		512,628
Price range			
<€150,000	3.3%	0.6%	3.9%
€150,000-€199,999	11.7%	0.4%	11.3%
€200,000-€249,999	19.0%	0.1%	19.1%
€250,000-€299,999	19.2%	0.7%	18.5%
€300,000-€399,999	26.0%	0.1%	25.9%
€400,000-€499,999	11.4%	1.0%	12.4%
>€500,000	9.4%	0.5%	8.9%
Total	100.0%	-	100.0%
Total	809,985		512,628

Table B.1 General stated and revealed preferences of first-time buyers according to the WoON 2021 (CBS, 2022)

Preferences of first-time buyers regarding new construction

Garden	Stated preference	Difference	Revealed preference
Yes	25.8%	47.2%	73.6%
No	26.1%	21.9%	4.9%
No preference/no opinion	48.1%	-	-
Total	100%		78.5%
Total	94,792		198,807

Table B.2 Stated and revealed preference regarding presence of a garden in the WoON 2021 (CBS, 2022)

Appendix C: Results WoON 2024

General preferences of first-time buyers

Municipality size	Stated WoON 2024	Difference	Revealed WoON 2024
Small village/not urban	6.6%	0.3%	6.9%
Large village/not very urban	22.3%	1.5%	20.8%
Small city/moderately urban	18.9%	2.2%	16.7%
Medium city/highly urban	14.8%	14.6%	29.4%
Large city/very highly urban	11.1%	15.1%	26.2%
No preference/no opinion	36.3%	-	-
Total	100.0%	-	100.0%
Total	188,665		538,594
Housing typology			
Detached house	15.3%	6.3%	8.1%
Semi-detached house	13.5%	1.6%	12.1%
Corner house	7.9%	6.8%	14.7%
Terraced house and other	30.8%	8.3%	39.1%
Apartment	32.4%	6.4%	26.0%
Total	100.0%	-	100.0%
Total	836,467		538,595
Number of rooms			
1-2 rooms	7.1%	2.4%	9.5%
3 rooms	29.6%	12.5%	17.1%
4 rooms	29.0%	1.5%	27.5%
5 rooms	18.2%	13.5%	31.7%
6+ rooms	10.5%	3.7%	14.2%
No preference/no opinion	5.6%	-	-
Total	100.0%	-	100,0%
Total	618,481		538,593
Study			
Preference for a study/lives in a house with a study	65.0%	9.8%	55.2%
No preference for a study/does not live in a house with a study	35.0%	9.8%	44.8%
Total	100.0%	-	100.0%
Total	561,780		487,219

Garden			
Yes	23.2%	42.1%	75.3%
No	31.8%	28.1%	3.7%
No preference/no opinion	44.9%	-	-
Total	100.0%	21.0%	79.0%
Total	194,940		538,595 (100.0%)
Garage or carport			
Yes	37.4%	10.6%	26.8%
No	31.7%	41.5%	73.2%
No preference/no opinion	30.9%	-	-
Total	100.0%		100.0%
Total	618,481		538,594
Parking facility			
Yes, private parking space	15.1%	1.7%	16.8%
Yes, shared parking space	27.3%	2.0%	29.3%
Wish for no parking facility/not present	33.1%	20.8%	53.9%
No preference/no opinion	24.6%	-	-
Total	100.0%	-	100.0%
Total	387,269		394,096
Price range			
<€150,000	1.5%	0.2%	1.7%
€150,000-€199,999	4.1%	1.8%	2.3%
€200,000-€249,999	11.8%	1.5%	10.3%
€250,000-€299,999	17.0%	3.3%	13.7%
€300,000-€399,999	30.7%	-	30.7%
€400,000-€499,999	18.0%	4.3%	22.3%
>€500,000	17.0%	2.2%	19.2%
Total	100.0%	-	100.0%
Total	855,949		538,594

Table C.1 General stated and revealed preferences of first-time buyers according the WoON 2024 (CBS, 2025c)

Preferences of first-time buyers regarding new construction

Typology	Stated preference	Difference	Revealed preference
Detached house	12.2%	4.2%	8.0%
Semi-detached house	11.6%	0.5%	11.1%
Corner house	8.1%	6.9%	15.0%
Terraced house and other	30.0%	4.9%	34.9%
Apartment	38.1%	7.2%	30.9%
Total	100.0%	-	100.0%
Total	339,834		202,153

Table C.2 Stated and revealed preference regarding housing typology in the WoON 2024 (CBS, 2025c)

Number of rooms	Stated preference	Difference	Revealed preference
1-2 rooms	8.2%	3.9%	12.1%
3 rooms	33.1%	12.5%	20.6%
4 rooms	27.7%	3.2%	24.5%
5 rooms	16.4%	13.7%	30.1%
6+ rooms	8.4%	4.4%	12.8%
No preference/no opinion	6.2%	-	-
Total	100.0%	-	100.0%
Total	339,834		202,153

Table C.3 Stated and revealed preference regarding the number of rooms in the WoON 2024 (CBS, 2025c)

Presence of a study	Stated preference	Difference	Revealed preference
Yes	67.6%	7.7%	59.9%
No	32.4%	7.7%	40.1%
Total	100.0%	-	100.0%
Total	321,893		177,770

Table C.4 Stated and revealed preference regarding presence of a study in the WoON 2024 (CBS, 2025c)

Appendix D: Results differences WoON 2021 2024

Stated situation: Overall preferences of fist-time buyers

Municipality size	WoON 2021	Difference	WoON 2024
Small village	6.8%	-0.2%	6.6%
Large village	21.6%	+0.7%	22.3%
Small city	14.8%	+4.1%	18.9%
Medium city	12.6%	+2.2%	14.8%
Large city	12.3%	-1.2%	11.1%
No preference / no opinion	31.9%	-5.0%	26.3%
Total	100.0%	-	100.0%
Total count	147,833		188,665
New construction			
Preference for new construction	17.0%	+2.6%	19.6%
No preference for new construction	47.0%	-5.0%	42.0%
No preference/no opinion	36.0%	+2.4%	38.4%
Total	100.0%	-	100.0%
Total count	549,714		603,899
Housing typology			
Detached	16.9%	-1.6%	15.3%
Semi-detached	15.1%	-1.6%	13.5%
Corner house	9.9%	-2.0%	7.9%
Terraced house	30.1%	+0.7%	30.8%
Apartments	28.1%	+4.3%	32.4%
Total	100.0%		100.0%
Total count	786,062		836,467
Garden			
Preference for house with a garden	27.7%	-4.5%	23.2%
No preference for a house with a garden	31.5%	+0.3%	31.8%
No preference / no opinion	40.7%	+4.2%	44.9%
Total	100.0%	-	100.0%
Total count	159,925		194,940

Price range			
<€150,000	3,3%	-1,8%	1,5%
€150,000-€199,999	11,7%	-7,6%	4,1%
€200,000-€249,999	19,0%	-7,2%	11,8%
€250,000-€299,999	19,2%	-2,2%	17,0%
€300,000-€399,999	26,0%	+4,7%	30,7%
€400,000-€499,999	11,4%	+6,6%	18,0%
>€500,000	9,4%	+7,6%	17,0%
Total	100.0%	-	100.0%
Total count	809,985		855,949

Table D.1 Development of general stated preference of first-time buyers in the WoON 2021 and the WoON 2024 (CBS, 2022, 2025c)

Stated situation: Preferences of first-time buyers considering new construction

Housing typology	WoON 2021	Difference	WoON 2024
Detached	14.8%	-2.6%	12.2%
Semi-detached	14.2%	-2.6%	11.6%
Corner house	8.6%	-0.5%	8.1%
Terraced house	28.9%	+1.1%	30.0%
Apartments	33.4%	+4.7%	38.1%
Total	100.0%		100.0%
Total count	283,484		339,834

Table D.2 Development of the stated preference regarding housing typology in the new-build market between WoON 2021 and WoON 2024 (CBS, 2022, 2025c)

Number of rooms	WoON 2021	Difference	WoON 2024
1-2 rooms	6.7%	+1.5%	8.2%
3 rooms	27.8%	+5.3%	33.1%
4 rooms	25.2%	+2.6%	27.7%
5 rooms	22.6%	-6.2%	16.4%
6+ rooms	11.5%	-3.1%	8.4%
No preference / no opinion	6.2%	-	6.2%
Total	100.0%		100.0%
Total count	291,419		350,482

Table D.3 Development of the stated preference regarding number of rooms in the new-build market (CBS, 2022, 2025c)

Price range	WoON 2021	Difference	WoON 2024
<€150,000	4.2%	-1,9%	2.3%
€150,000-€199,999	12.8%	-8.5%	4.3%
€200,000-€249,999	20.1%	-7,5%	12.6%
€250,000-€299,999	18.0%	+1.5%	19.5%
€300,000-€399,999	24.4%	+2.9%	27.3%
€400,000-€499,999	11.3%	+5.9%	17.2%
>€500,000	9,3%	+7,4%	16.7%
Total	100.0%	-	100.0%
Total count	291,418		350,482

Table D.4 Development of the stated preference regarding price range in the new-build market (CBS, 2022, 2025c)

Appendix E: Coding scheme

Code	Code group
Form of ownership	Deductive preference; housing characteristics
Price	Deductive preference; housing characteristics
Housing typology	Deductive preference; housing characteristics
Surface	Deductive preference; housing characteristics
Number of rooms	Deductive preference; housing characteristics
Number of bedrooms	Deductive preference; housing characteristics
Layout of the house	Deductive preference; housing characteristics
State of maintenance	Deductive preference; housing characteristics
Architectural style house	Deductive preference; housing characteristics
Year of construction	Deductive preference; housing characteristics
Number of toilets	Deductive preference; housing characteristics
Kitchen layout	Deductive preference; housing characteristics
Parking facilities	Deductive preference; housing characteristics
Outside space	Deductive preference; housing characteristics
Quality house	Deductive preference; housing characteristics
Surface of the living room	Deductive preference; housing characteristics
Storage space	Deductive preference; housing characteristics
Semi-public space	Deductive preference; housing characteristics
Living environment	Deductive preference; characteristics of the living environment
Physical characteristics	Deductive preference; characteristics of the living environment
Social characteristics	Deductive preference; characteristics of the living environment
Functional characteristics	Deductive preference; characteristics of the living environment
Proximity/facilities	Deductive preference; characteristics of the living environment
Scenery	Deductive preference; characteristics of the living environment
Presence of nature	Deductive preference; characteristics of the living environment
Quality living environment	Deductive preference; characteristics of the living environment
Architectural style living environment	Deductive preference; characteristics of the living environment
Semi-public space living environment	Deductive preference; characteristics of the living environment
Public transport	Deductive preference; characteristics of the living environment
Safety	Deductive preference; characteristics of the living environment
Disadvantage new build	Reason for existing construction/benefit of existing construction
Preference for existing construction	Reason for existing construction/benefit of existing construction
Preference for new build	Reason for new construction/benefit of new construction

Remarkable result: Typology	Remarkable results
Remarkable result: Price range	Remarkable results
Remarkable result: Garden	Remarkable results
Remarkable result: Living environment	Remarkable results
Order of priorities	Orders
Order of concessions	Orders
Dealbreaker	Requirements
Benefit of new construction	Reason for new construction/benefit of new construction
Supply does meet demand	Supply and demand
Supply does not meet demand	Supply and demand
Concessions regarding barriers	Concessions
Concessions regarding <i>meerwerk</i>	Concessions
Concessions regarding mindful choices	Concessions
Concessions regarding location	Concessions
Concessions regarding typology	Concessions
Concessions regarding garden	Concessions
Concessions not necessary	Concessions
Concessions regarding <i>Erfpacht/eigen grond</i>	Concessions
Lightning	Inductive preference; housing characteristic
Location	Inductive preference; living environment
Streetscape	Inductive preference; living environment
Surrounding noise	Inductive preference; living environment
Age	Background information
Search area	Background information
Searching time	Background information
Background of the search for a house	Background information

Table E.1 Coding scheme applied to analyse the interviews (Own work, 2026)

Appendix F: Data management plan

Plan Overview

A Data Management Plan created using DMPonline

Title: The road from stated to revealed preference

Creator: Puck Ruigrok

Affiliation: Delft University of Technology

Template: TU Delft Data Management Plan template (2025)

Project abstract:

The Netherlands is suffering from a housing crisis. Interventions of the government, new policies and new construction play an important role in the way the housing stock is being shaped, and the housing crisis will be solved. Quantity of available houses is not the only problem the housing stock is dealing with. Also, a qualitative mismatch considering housing characteristics is present on the current market. The new stock does not meet demand from 'doorstromers' but seems to better fit the demand from first-time buyers. Therefore, in this study, it is researched how changing housing policy does effect supply on the new construction market, and to which extend this new supply does meet the stated and revealed preferences of first-time buyers. In order to research this, a mixed method approach is applied. Literature reviews are carried out to gain better understanding about new housing policies and their effects on the new construction market, about stated and revealed preferences in general and about how these preferences show on the new construction market. A quantitative analysis using data sets of WoON 2021 and WoON 2024 is carried out to gain better understanding about the stated and revealed preferences of first-time buyers, and to see if those preferences changed over time. Lastly, interviews are carried out to capture the trade-offs first-time buyers make as they purchase a house on the new construction market. Scientific and social relevance is present in the resulting stated and revealed preferences of first-time buyers on the new construction market, in the order this group makes trade-offs, and in the potential change in supply for first-time buyers because of new policy.

ID: 193799

Start date: 10-02-2026

End date: 30-06-2026

Last modified: 18-02-2026

The road from stated to revealed preference

0. Administrative questions

1. Provide the name of the data management support staff consulted during the preparation of this plan and the date of consultation. Please also mention if you consulted any other support staff.

The DMP has been shared with my thesis supervisors Marietta Haffner and Harry Boumeester via DMPonline, and has been reviewed by Marietta Haffner on 18-02-2026

2. Is TU Delft the lead institution for this project?

- Yes, the only institution involved

I. Data/code description and collection or re-use

3. Provide a general description of the types of data/code you will be working with, including any re-used data/code.

Type of data/code	File format(s)	How will data/code be collected/generated? <i>For re-used data/code: what are the sources and terms of use?</i>	Purpose of processing	Storage location	Who will have access to the data/code?
WoON-2021 anonymous housing survey data: Housing preferences	.csv	Dataset from BZK and CBS, "Woononderzoek Nederland 2021 woningmarktmodule- release 1.0", https://doi.org/10.17026/dans-xaamrra . Available with restricted access under the DANS data use agreement licence.	Capturing stated and revealed housing preferences of first-time buyers	TU Delft OneDrive	Master's student Puck Ruigrok Supervisors Marietta Haffner and Harry Boumeester
WoON-2024 anonymous housing survey data: Housing preferences	.csv	Dataset from VRO and CBS, "Woononderzoek Nederland 2024 woningmarktmodule- release 1.1", https://doi.org/10.17026/SS/ZBPTLH . Available with restricted access under the DANS data use agreement licence.	Capturing stated and revealed housing preferences of first-time buyers	TU Delft OneDrive	Same as above

PLL (Personally Identifiable Information). Participants name's, email addresses, phone numbers, signature	.txt or .docx	An external party (like Vereniging Eigen Huis, platform nieuwbouw.nl, or a broker like makelaarsland) sends an e-mail to potential participants in their data base. The e-mail explains reason for and purpose of research, and invites first-time buyers to participate in the study. The e-mail contains the e-mail adress of the researcher so the first-time buyers can enrol in the research. Through e-mail the PLL will be shared. If not enough participants can be recruited through the external party, participants in the environment of the researcher will be recruited.	Needed for administrative purposes, informed consent forms and organising the interviews	TU Delft OneDrive	Same as above
Signed informed consent forms	.docx	The templates for the informed consent forms are obtained from the TU Delft website. The Dutch template is used.	To obtain and document informed consent for carrying out the interviews	TU Delft OneDrive	Same as above
Audio recordings of interviews with first time buyers	.mp3	Interviews are conducted during on-site visits to [X], or when preferred, via microsoft Teams. Audio-recordings are made on an external device, before being moved to OneDrive. Recordings are deleted after transcription.	Capturing the pathway from stated to final/revealed preference, showing order of trade-offs of housing preferences	External recording device (temporary) and TU Delft Onedrive	Same as above
Anonymous transcriptions of interviews	.txt or .docx	The recorded audio tapes are transformed into anonymous transcriptions. Participants can review the transcriptions before finalising.	Privacy preserving data on tradeoffs considering housing preferences, made by first time buyers	TU Delft OneDrive	Same as above
Anonymised data consisting trade-off frist time buyers make considering housing preferences	.csv	Data obtained from coding the anonymised transcripts using Atlas.ti	Privacy preserving data on tradeoffs considering housing preferences, made by first time buyers	TU Delft OneDrive	Same as above

Report/thesis.docx		The final report will explain the reason for the research, how the research is conducted and the results of the research.	Long-term documentation	During graduation process stored on TU Delft OneDrive. After graduation it will be published in the TU Delft Repository	Same as above
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II. Storage and backup during the research process

4. How much data/code storage will you require during the project lifetime?

- 250 GB – 5 TB

5. Where will the data/code be stored and backed-up during the project lifetime? (Select all that apply.)

- Another storage system – please explain below, including provided security measures
- TU Delft OneDrive

TU Delft OneDrive will be used as the primary data storage. Only the researcher and supervisors have access to this data. The quantitative WoON data and qualitative interview data will be stored in separate folders. Within the interview folder, there are separate folders for audio-recordings and anonymous transcriptions. Informed consent forms and contact information are encrypted separately from research data to minimise risk of re-identification.

As the interviews are recorded, the data will temporarily be on an external device, but will be deleted after uploading in TU Delft OneDrive. On the external device, the data is stored on the harddrive. If the interviews take place on Microsoft Teams, only audio is recorded. In this case the data will be stored on the TU Delft OneDrive.

III. Data/code documentation

6. What documentation will accompany data/code? (Select all that apply.)

- Data – Methodology of data collection

The dataset will not be shared in a data repository, but the methodology of data collection and data analysis will be explained in the MSc thesis, which is made publicly available in the TU Delft Repository.

IV. Legal and ethical requirements, code of conducts

7. Does your research involve human subjects or third-party datasets collected from human participants?

If you are working with a human subject(s), you will need to obtain the HREC approval for your research project.

- Yes – please provide details in the additional information box below

My research involves third-party anonymised data sets (WoON 2021 and WoON 2024) and interview data. I intend to apply for ethical approval from the Human Research Ethics Committee.

8. Will you work with personal data? (This is information about an identified or identifiable natural person, either for research or project administration purposes.)

- Yes

I work with data from third-party datasets. The data from WoON 2021 and WoON 2024 are already anonymous.

For conduction of the interviews, personal data like names, e-mail addresses and autographs are processed, for example to organise the interviews and to obtain informed consent. The data of the interviews will be anonymised.

9. Will you work with any other types of confidential or classified data or code as listed below? (Select all that apply and provide additional details below.)

If you are not sure which option to select, ask your Faculty Data Steward for advice.

- No, I will not work with any other types of confidential or classified data/code

10. How will ownership of the data and intellectual property rights to the data be managed?

For projects involving commercially-sensitive research or research involving third parties, seek advice of your [Faculty Contract Manager](#) when answering this question.

This is an internal TUD MSc thesis project

11. Which personal data or data from human participants do you work with? (Select all that apply.)

- Proof of consent (such as signed consent materials which contain name and signature)
- Audio recordings
- Telephone number, email addresses and/or other addresses as contact details for administrative purposes
- Names as contact details for administrative purposes

Interviewee name, e-mail adress and mobile phone number are processed for administrative reasons (to obtain informed consent and communicate with participants).

Personal research data processed for interview participants include audio-recordings.

The re-used data from WoON-2021 and WoON-2024 is received in anonymised form but contains personal data categories like household type and housing costs. It also contains data considering housing preferences.

12. Please list the categories of data subjects and their geographical location.

The focus group of this research are first-time buyers living in the Netherlands.

13. Will you be receiving personal data from or transferring personal data to third parties(groups of individuals or organisations)?

- No

Participants will get in contact with the researcher through an external partner. They can get in contact through provided e-mail adress or phone number. When not enough participants can be recruited through an external party, participants in the environment of the researcher will be recruited.

16. What are the legal grounds for personal data processing?

- Informed consent

The HREC informed consent guide and templates will be used to create the Participant Information Sheet (template 1) and the Explicit Informed Consent Form (template 2) for the interviews.

17. Please describe the informed consent procedure you will follow below.

The researcher will inform the potential participants about the goals and procedures of the research project. The researcher will also inform them about the personal data that are being processed and for what purpose. A digital copy of the information will be emailed to participants before the interview, and all participants will be asked for their consent for taking part in the study and for data processing by signing a digital informed consent form before the start of the interview.

18. Where will you store the physical/digital signed consent forms or other types of proof of consent (such as recording of verbal consent)?

Digital informed consent forms and contact information are stored in the TU Delft OneDrive and encrypted separately from research data to minimise risk of re-identification.

19. Does the processing of the personal data result in a high risk to the data subjects?(Select all that apply.)

If the processing of the personal data results in a high risk to the data subjects, it is required to perform a Data Protection Impact Assessment (DPIA). In order to determine if there is a high risk for the data subjects, please check if any of the options below that are applicable to the processing of the personal data in your research project.

If any category applies, please provide additional information in the box below. Likewise, if you collect other type of potentially sensitive data, or if you have any additional comments, include these in the box below.

If one or more options listed below apply, your project might need a DPIA. Please get in touch with the Privacy team (privacy-tud@tudelft.nl) to get advice as to whether DPIA is necessary.

- None of the above apply

23. What will happen with the personal data used in the research after the end of the research project?

- Anonymised or aggregated data will be shared with others

The anonymised research data consisting of anonymised interview transcripts and anonymised coded data will be analysed for the findings in the body of the thesis and, where functional, included the appendix, and will be shared in the TU Delft repository.

Third-party data from WoON-2021 and WoON-2024 are available under restricted access, and cannot be distributed without express permission from the rights holder.

24. For how long will personal research data (including pseudonymised data) be stored?

- Personal data will be deleted at the end of the research project

Audio recordings are destroyed after completion of anonymised interview transcriptions. All other personal research data will be destroyed at the latest 1 month after the end of the project.

25. How will your study participants be asked for their consent for data sharing?

- Other – please explain below (see guidance for additional options)

In the informed consent form. Participants are informed that their personal data will be anonymised and analysed. All participants will be asked for their consent for this data to be analysed. The results will be shared anonymously in the body of the MSc thesis, which is made publicly accessible in the TU Delft Repository. Participants who do not consent to their anonymised data being included publicly in the thesis will not be included in the research project.

V. Data sharing and long term preservation

27. Apart from personal data mentioned in question 23, will any other data be publicly shared?

Please provide a list of data/code you are going to share under ‘Additional Information’.

- I do not work with any data other than personal data

29. How will you share research data/code, including those mentioned in question 23?

Select all that apply and provide additional details below.

- I am a Bachelor’s/Master’s student at TU Delft and I will share the data/code in the body and/or appendices of my thesis/report in the TU Delft Repository

The results of the data analyses (of the interviews and the WoON data) will be included in the body of the MSc thesis, which will be made available in the TU Delft repository. The Syntax file (with data instructions for data selection and analysis) for the statistical analysis will be included in the appendix of the thesis and will also be made available in the TU Delft Repository.

The dataset is not shared in a data repository.

30. How much of your data/code will be shared in a research data repository?

- Not applicable - No data/code will be shared in a repository

31. When will the data/code be shared?

- As soon as corresponding results (papers, theses, reports) are published

Anonymised results of data analysis obtained during the project will be included in the body and appendix of the MSc thesis, and will be made available in the TU Delft Repository. The dataset is not shared in a data repository.

32. Under what licence(s) will the data/code be released?

- Other – please explain below

The thesis is made publicly available in the TU Delft Repository under copyright. The data is not shared in a data repository with a data licence.

VI. Data management responsibilities and resources

33. If you leave TU Delft (or are unavailable), who is going to be responsible for the data/code resulting from this project?

Thesis supervisor, Marietta Haffner

34. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

No additional resources are required.

35. Which faculty do you belong to?

- Faculty of Architecture and the Built Environment (ABE)

Appendix G: Use of AI

While writing this report, different (generative) AI-tools were used. These tools are by far the most commonly used for translation and help with correct spelling and structure of the text. Furthermore, these tools have helped with generating ideas for interview questions.