

# **Young Adults' Housing Tenure Choices after Leaving the Parental Home**

An Empirical Analysis Based on the German SOEP

Master's Thesis in the Master of Science Population Studies at the University of Groningen

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## Abstract

In this master's thesis, I examined the housing tenure choices of young adults after leaving the parental home. By distinguishing between four tenure types in owning, renting, subletting, and living in dormitories, I could add to the existing literature on housing and provide new insights into the housing careers of home leavers. I used data from the German Socio-Economic Panel and assessed the housing tenures of 4,312 home leavers between 1985 and 2019. While four out of five home leavers choose to rent, a considerable share of 14.59 % live in sublet dwellings or dormitories immediately after leaving. Over the five-year period covered in my analysis, transitions to homeownership and renting take place. For an assessment of the determinants of these choices, I used multinomial logistic regressions with individual, background, and contextual predictors. The multivariate results show that income is positively associated with homeownership, whereas university enrolment and unstable employment arrangements increase the log-odds of subletting and living in dormitories. Furthermore, cohabitation and family formation is an important determinant of homeownership at later time-points. Overall, the findings are in line with the literature and support my hypotheses which were derived from a life course approach focusing on interactions between life domains.

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# 1. Introduction

Leaving the parental home marks an unprecedented transition in the life course that is interrelated with changes in various life domains, such as educational and occupational careers or partnership and family formation. A considerable body of literature studied the timing and patterns of leaving the parental home (i.e., Iacovou, 2010; Mulder & Hooimeijer, 2002), ‘boomeranging’ as the occurrence of reversed and repeated moves from and to the parental home (Gillespie, 2020), and coinciding events like enrolment in higher education or employment (Jacob & Kleinert, 2007; Kley & Mulder, 2010). Inevitably, the decision to leave the parental home is also a decision to find a new home and to choose a housing tenure. In Germany’s ‘society of renters’ many of these decisions are made in favour of renting (Lennartz & Helbrecht, 2018). Especially among young adults, low rates of homeownership are observed in (West) Germany compared to other (European) countries like the United Kingdom (Bayrakdar et al., 2019) or the Netherlands (Mulder & Wagner, 1998). However, for many home leavers, their first move is just the start of a housing career in which relocations can be considered as an instrumental tool to increase their wellbeing. Leaving home as a first step in this career is usually motivated by educational and employment prospects, rather than a tool to fulfil housing aspirations. Additionally, changes and adjustments of one’s housing situation can be either made in preparation or response to changes in other life domains, i.e., career prospects or childbirth. For the latter, a typical pattern in Germany is that among couples who intend to become homeowners childbirth rates peak shortly after the house or dwelling is purchased (Mulder & Wagner, 2001). Apart from focusing on homeownership as a definite or stable outcome of people’s housing careers, other studies particularly focus on the intermediate steps and distinguish between more outcomes than owning or not-owning: In the United States, owning a trailer is not uncommon for home leavers (Clark & Mulder, 2000). Other studies explicitly distinguish between different living arrangements like living alone, with a partner or sharing with others (Mulder et al., 2006; Mulder & Hooimeijer, 2002; Schwanitz & Mulder, 2015), or explicitly focus on sharing as a common housing outcome among students (Steinführer & Haase, 2009). Unsurprisingly, this high variation of housing outcomes coincides with the peak of residential mobility over the life course. Moves and migrations are most common during this phase of young adulthood (Bernard et al., 2014). During this life-course stage, two alternative tenure types come into play that so far have been neglected in studies of housing. First, subletting is a tenure type which is defined as renting parts of or a whole house or dwelling from its owner or main tenant, while potentially sharing some facilities with them.

A subletting contract is often temporary but can also last over a longer period. Second, many young adults leave their parental home for studying or vocational training and may (temporarily) live in a dormitory for this period. Both tenure types have in common that their costs are usually lower compared to renting individually, and that they are perceived as a form of more flexible and temporary housing.

In this master's thesis, I aim to shed more light onto this volatile phase of people's housing careers in early adulthood. Therefore, I study the housing tenure choices of young adults after leaving their parental home and examine the determinants that contribute to these decisions. By analysing panel data from 36 waves of the German Socio-Economic Panel (GSOEP) (Liebig et al., 2021), I can follow home leavers through their early housing careers and examine how their decision making is determined. The GSOEP provides rich information from individual and household questionnaires and allows to explain the housing tenure choices through individual, parental and contextual characteristics. Using multinomial logistic regression models, I can compare four tenure types (owning, renting, subletting, and living in a dormitory) at different time-points after leaving the parental home. Given the tight housing markets, high rents, and binding down-payments for purchasing a home in contemporary Germany (Bundesregierung, 2019), this work can contribute to a better understanding of the housing preferences and decisions of young adults.

The thesis is structured as follows. As a starting point, the existing literature on leaving the parental home and the different tenure types is reviewed and summarised in section two. In section three, the life course approach is introduced as a behavioural theory of relocations and housing, from which six hypotheses are derived. In section four, the GSOEP data is introduced, the data preparation and sample selection are delineated in a transparent way, and the analytical approach is briefly described. Section five presents the descriptive and multivariate results of the empirical analysis. Finally, the results are discussed in light of the existing literature and strengths and limitations are evaluated in section six.

## 2. Leaving the Parental Home and Choosing a Housing Tenure

There are two bodies of literature relevant for this thesis. First, I review the literature on determinants and patterns of leaving the parental home, since the decision to leave is a prerequisite to choose a tenure type. This includes factors influencing the timing and distance of this first independent relocation in the life course, as well as coinciding events that act as triggers for the decision to leave. Second, I am interested in the subsequent housing choice of home leavers and young adults in general. Many studies focus on the transition to homeownership while others examine alternative housing and living arrangements, as well as their implication for housing careers and later life outcomes.

### 2.1 Patterns and Determinants of Leaving the Parental Home

In Western societies, the phenomenon of leaving the parental home is typically “embedded in the transition to adulthood“ (Billari et al., 2001, p. 339) as it marks an unprecedented event in the life course which impacts various aspects of peoples’ lives. While leaving the parental home itself is an almost universal process in Europe and North America, several differences between country contexts persist in timing and pathways of leaving home (Billari et al., 2001; Billari & Liefbroer, 2010; Mulder et al., 2002). In their comparative study, Billari and Liefbroer (2010) showed that Eastern Europeans leave their parental home at younger ages while home leavers in Southern Europe leave later. In between, there are Northern and Western European home leavers, who stay on average until age 20 to 22. The cross-regional differences were stable over birth cohorts from 1930 to 1970, but a trend of earlier home-leaving was observed particularly in Northern and Western European countries. In similar vein, Aassve et al. (2002) studied the impact of welfare state regimes on the probability of leaving the parental home. Their results take a similar direction and provide insight on the role of individual employment, income, and parental resources for the decision to leave the parental home. In the conservative welfare state of Germany, home leavers are of intermediate age and their decision is not dependent on the individual’s employment situation. Still, a higher income makes leaving more likely. In contrast to the insignificance of current employment, the duration of unemployment while living in the parental home decreases the likelihood of leaving (Jacob & Kleinert, 2007). While the positive effect of individual income on the likelihood of leaving is evident in various countries and welfare regimes, parental resources provide some cross-country differences that can be attributed to variation in family ties (Iacovou, 2010). Unsurprisingly, parental income does not affect the timing of those leaving for education (Iacovou, 2010), since higher education is closely connected to finishing high-school. For other pathways out of the parental home (for

example, leaving to live with or without a partner), higher parental income is associated with a lower likelihood to leave at young ages and a higher likelihood to leave at higher ages (Iacovou, 2010). The turning points of these non-linear interactions are higher in Southern Europe and lower in Northern Europe, emphasizing theory on stronger family ties in the former and weaker family ties in the latter regions (Iacovou, 2010).

A commonality across European countries is the strong correlation between the age at marriage and the age at leaving among the baby-boom cohorts. By assessing the exact dates of leaving and first marriage of cohorts born around 1960 in European countries, Billari et al. (2001) came to the conclusion that, especially among women, the “simultaneity really implies that the two events are the *same* event” (p. 352). Although this pattern is not universal, one can delineate a trend when comparing it with the results for older cohorts, born between 1930 and 1940. Among those, the average age at leaving and marriage correlate strongly, while the association loosens up among younger cohorts (Billari & Liefbroer, 2010). The reasons for this dissolution are manifold. Processes of the Second Demographic Transition, like secularisation, emerging new living arrangements, a decreasing importance of the origin family, and preferences for self-realization outside of traditional norms, manifest in postponement of marriage, childbirth, and a new pattern of the transition to adulthood (Billari & Liefbroer, 2010). In late 20<sup>th</sup> century Germany, the simultaneity of leaving home and marriage loosened up and new forms of living and housing became increasingly popular. The declining tendency to marry manifested in new living arrangements outside of the parental household, including living alone, cohabiting with an unmarried partner or sharing with others (Wagner, 1989). Moreover, the pattern of leaving before union formation continued as home leavers from younger cohorts left increasingly without a partner (Mulder et al., 2002).

While the pathway of leaving to live with a spouse or partner developed from the typical pattern of home-leaving to only one of many alternatives, enrolment in higher education remains a stable predictor of leaving. Depending on the territorial dispersion of universities, leaving the parental home is mandatory to continue one’s educational career after finishing high school (Billari et al., 2001). In the United States, higher education is typically attained in colleges and universities that offer dormitories on campus. Therefore, some scholars speak of leaving semi-independently or semi-autonomy, with high levels of intergenerational support and frequent but temporary returns to the parental home on weekends or during holidays (Billari et al., 2001; Goldscheider & DaVanzo, 1989). Furthermore, educational expansion plays an important role not only as a reason to leave the parental home but also for the increased likelihood of leaving

without a partner. As more and more people attain tertiary education, their ways of leaving the parental home change from the typical pattern of leaving with a partner towards leaving alone (Mulder & Hooimeijer, 2002). This is also evident in the postponement of union formation, marriage, and childbirth in favour of individual autonomy in educational and occupational choices (Billari & Liefbroer, 2010).

With regard to gender differences in these patterns of timing and pathways, a general finding is that women tend to leave earlier than men, regardless of the country context (Billari et al., 2001; Wagner, 1989). The age difference can be explained by typical gender differences in the age at union formation, particularly in periods when leaving and union formation were synchronized or the same event (Billari et al., 2001). As indicated, this synchronization of events loosened up. Among younger cohorts, gender differences can be explained by different effects of parental resources and the quality of the parental relationship (Blaauboer & Mulder, 2010) or the gender-composition in the parental household (Gillespie, 2020). Interestingly, gender differences are evident in the distance at leaving the parental home particularly in East Germany, where women move more often to West Germany than men (Geissler et al., 2012). While the East-German gender difference persists after controlling for education, moving distance at leaving the parental home is strongly determined by education (Leopold et al., 2012). Additionally, research on the effect of considering and planning to leave the parental home has shown that long-distance moves are more likely during the transition from school to employment or tertiary education than in other circumstances (Kley & Mulder, 2010).

In conclusion, several differences in the timing and pathways of leaving the parental home persist in Western societies. In Germany, the typical pattern of Northern European countries and the conservative welfare regime are evident in a moderate age at leaving at around 22 years and increasing share of single home leavers. Important determinants are resources in form of individual and parental income, as well as university enrolment as a factor of earlier home-leaving.

## 2.2 Living Arrangements and Housing Choices of Young Adults

Naturally, the decision to leave the parental home is a decision to enter the housing market and find a new home. A classical distinction in housing studies is drawn between renting and owning a home. Furthermore, researchers distinguish between housing outcomes based on the living arrangement or household composition, typically contrasting singles, couples, and people sharing with others. Living arrangements are of particular interest during early adulthood and closely after leaving the parental home due to the high mobility and fluctuation during this life-

course stage (Bernard et al., 2014), as a long tradition of research shows (i.e., Goldscheider & DaVanzo, 1985; Lesthaeghe & Moors, 1995; Mulder et al., 2006; Schwanitz & Mulder, 2015).

The choice of living arrangements overall resembles the pathways of leaving home. An increasing share of young adults leaves the parental home to live alone or to share with others, which breaks up the traditional pattern of union formation and cohabitation (Mulder et al., 2002). However, living with a partner remains the most common living arrangement among young adults in their mid-twenties and early thirties in most European countries (Schwanitz & Mulder, 2015). Among younger age-groups, living alone and sharing is common among those who already left their parental home in countries like the United Kingdom (Berrington et al., 2009; Stone et al., 2011), the Netherlands (Mulder, 2003) and Germany (Steinführer & Haase, 2009). These country-specific findings confirm the Western European trend of living alone and sharing with others in young adulthood, which can be explained by the differing importance of family ties in the “North/West – South/East [European] gradient” (Schwanitz & Mulder, 2015, p. 392). Moreover, sharing – initially developed out of a politically motivated conception of life among the student and hippie movement in the 1960s – is pronouncedly popular among students. At the beginning of the 21<sup>st</sup> century, approximately one out of five German students was living in shared accommodations (Steinführer & Haase, 2009), in the United Kingdom one out of three (Stone et al., 2011), and in the Netherlands two out of three (Mulder & Hooimeijer, 2002). While the levels of sharing in Germany remained rather stable at a high level after a period of increasing popularity between 1960 and 1990, the motivation in the decision-making to share has been changing with time (Steinführer & Haase, 2009). Nowadays, most people benefit from the persisting lower housing costs and the possibility to not live alone but together with others (Steinführer & Haase, 2009, pp. 573–574), while political activism and rebellion against traditional family norms are not the driving factor in the decision to share. Additionally, sharing offers a form of a flexible and temporary housing with high fluctuation, especially in urban areas (Steinführer & Haase, 2009). Regarding gender differences in sharing, no substantial divergence was found between male and female students. Yet, women in other educational and occupational categories are more likely to share than men in the Netherlands (Mulder & Hooimeijer, 2002). In contrast, when comparing across the same age group, men are more likely to share than women (Schwanitz & Mulder, 2015). Potentially, this gender difference is the result of differences in the age at leaving (compare section 2.1) as other studies do not report gender differences in housing situations and the likelihood to share (i.e., Mulder, 2003).

Apart from the distinction of living arrangements, another aspect in the study of housing is the tenure. A large body of literature is concerned with the property situation of housing within and between countries and, more particularly, in the transition to homeownership over the life course. While demographers and sociologists are mainly interested in individual determinants of housing and include the housing market as a contextual factor, economists put the market, its structure and economic determinants at the centre of their attention (i.e., Ermisch & Di Salvo, 1997; Kaas et al., 2021; Voigtländer, 2014). Unsurprisingly, both macro- and micro-level studies underpin the importance of economic resources in form of income and wealth for becoming a homeowner with differing effects depending on the country-specific ownership structure (i.e., Bayrakdar et al., 2019; Clark et al., 1997; Mulder et al., 2002). In Germany, homeownership is far from being the standard housing tenure in general (Lennartz & Helbrecht, 2018) and particularly among young adults (Bayrakdar et al., 2019). The trend of increasingly early transitions to homeownership in Germany and the Netherlands among cohorts born between 1920 and 1960 (Mulder & Wagner, 1998) did not continue as first-time homeownership tends to occur later in the housing career after leaving the parental home (Lennartz & Helbrecht, 2018). With regard to resources, age is an important proxy for saving potential. Immediate homeownership after leaving the parental home is typically associated with a higher age at leaving due to the earning capacity of older home leavers (Mulder & Hooimeijer, 2002). Particularly in countries where the owning market is larger than the renting market (for example, in the United Kingdom), people tend to leave their parental home later to exploit the saving potential of living in the parental home while saving up their individual income (Bayrakdar et al., 2019). In contrast, larger renting markets, for example in Germany, allow young adults to leave their home earlier and live in rented dwellings for a while before purchasing a home (Lennartz & Helbrecht, 2018).

In addition, a recurrent finding in the determinants of homeownership is the strong influence of union formation on housing tenures. Married or cohabiting couples have the highest likelihood to become homeowners (Mulder, 2003). Once again, economic resources play a role in this association since “couples can pool resources, are generally older, and are more often employed than those without a partner” (Mulder & Hooimeijer, 2002, p. 264). The convergence of homeownership and union formation is especially pronounced in homeownership rates immediately after leaving the parental home in the United Kingdom where couples move in together in an owner-occupied home after a period of saving (Bayrakdar et al., 2019; Druta & Ronald, 2017). In Germany, homeownership of couples coincides with marriage and dwellings are typically purchased in expectation of childbirth (Mulder & Wagner, 2001). Typically, the

housing preferences of singles and couples diverge, as does the quality of rented and owned homes (Mulder & Wagner, 1998). For many German families, their home is ideally located in rural or sub-urban regions in form of a detached “family house” (Kley & Stenpaß, 2020). Furthermore, housing preferences are shaped by socialisation through parents and siblings (Blaauboer, 2011) as well as personal experiences and traditions regarding living environments (ÆrØ, 2006). Whereas the influence of parental background on housing preferences is evident in many societies, the effect of parental resources on the likelihood to become a homeowner is more ambiguous. Evidence from the Czech Republic illustrates that the influence of parental preferences is stronger if, additionally, parental resources are transferred in order to become a homeowner (Lux et al., 2018). Since significant wealth differences between owners and renters are observed and increasing over time (Lersch & Dewilde, 2018), the parental influence on housing decisions is particularly pronounced for parental homeownership (Bayrakdar et al., 2019). Additionally, qualitative differences between regular transfers to support home leavers in paying their rents and extraordinary, high gifts to purchase a home are found in Germany (Lennartz & Helbrecht, 2018). For individuals who have to share parental resources and support with many siblings, the effect of parental resources diminishes (Blaauboer, 2010).

Lastly, there are some particularities of the German housing market that are noteworthy. Due to its low homeownership-rate, the German housing market was very resilient to the global financial crisis in 2007 and residential mortgages were not affected by the recession in the following years (Kofner, 2014; Voigtländer, 2014). Furthermore, to be eligible for a mortgage potential home-owners must pay a considerable down-payment of 20 to 30 % (Lennartz & Helbrecht, 2018), which is considerably higher than in other countries like the Netherlands (Mulder & Wagner, 1998) or the United Kingdom (Lersch & Dewilde, 2018). In consequence, house prices remained remarkably stable over the 1990s and 2000s but have been rising since 2011 (Kofner, 2014). For rents, there is a trend of renting prices rising slightly faster than the average consumer price index, particularly in densely populated regions (Bundesregierung, 2019; Kofner, 2014). In addition, owner-occupied housing is mainly found in rural areas like villages and small towns (Mulder & Wagner, 2001), resembling the preference of owned, detached family-houses (Kley & Stenpaß, 2020). With regards to differences between immigrant groups, Western European immigrants show higher transition rates to homeownership than immigrants from Eastern and Southern Europe after controlling for socio-economic determinants (Davidov & Weick, 2011). Despite these differences, the afore discussed individual characteristics also apply for immigrants as age, income, education, being

married, and, additionally, the time since migrating increase the likelihood to become a homeowner (Davidov & Weick, 2011).

In conclusion, housing choices are strongly determined by age, resources, and household composition due to their importance for saving potentials, preferences, and necessities. Parental background and socialisation influence the housing preferences and likelihood to become a homeowner. However, Germany's "society of renters" (Lennartz & Helbrecht, 2018) has considerably lower transition rates to homeownership at young, but also older ages, which poses a particularity of the housing market in comparison to other Western countries.

### 3. The Life Course Approach as a Behavioural Theory

Studies of housing and residential mobility traditionally implement a life course approach that considers careers and trajectories of individuals in a changing context over time. Although the life course approach is often referred to as a theory, many researchers prefer to call it a perspective since it does not explain or predict a certain outcome. Instead, the life course approach provides a theoretical frame that accounts for different, interrelated careers, experiences and path dependencies (Huinink & Feldhaus, 2009). Over time, the life course approach has been evolving and several interdependencies, like the concept of linked lives, emerged as valuable concepts in sociological and demographic studies (Elder et al., 2003). Recently, Bernardi et al. (2019) put these interdependencies at the centre of the life course approach and developed the life course cube as a life course theory of behaviour. The cube consists of three axes, representing three dimensions of the life course in life domains, the multi-level structure of life courses, and time. To serve the function of a behavioural theory, the authors use the axiomatic assumption “that actors try to improve, or at least maintain, aspects of their physical and mental wellbeing over time, all the while avoiding other considerable losses” (Bernardi et al., 2019, p. 2). In this sense, all behaviours and transitions in the life course serve the purpose to increase or maintain the wellbeing of individuals or collectives that act as a decision-making entity.

Under this assumption, relocations can be considered as an instrumental tool to increase one’s wellbeing either directly or indirectly. Direct improvements relate to the quality of housing, the neighbourhood and other aspects that improve due to relocating, while indirect improvements relate to wellbeing through the interlinkages of different life domains. These interlinkages come into play when the relocation itself is necessary due to changes in other life domains like a job offer or partnership formation. Assuming that individuals make rational choices when negotiating a change of their housing situation, regardless of the motivation, a voluntary relocation should overall increase the actors’ wellbeing. In a rational decision-making process, all involved actors would weigh the costs and benefits and decide in favour a relocation if the perceived benefits exceed the perceived costs. It is then beneficial to move since their individual or collective wellbeing is expected to increase due to the relocation.

For the study of housing tenure choices of home leavers, interdependencies between life domains are of central importance since they act as triggers for leaving the parental home and determinants of the tenure choice at the same time. Since the decision-making process of leaving home is beyond the scope of this thesis, I put a focus on the determinants of the housing

tenure choice by restricting the sample to people who already left their parental home. The determinants of tenure choice can broadly be categorized into three concepts: resources, preferences, and contextual factors (cf. Mulder, 2003).

First, resources mark an important concept in the choice of a housing tenure, since they restrict the options through the affordability and variety of available housing. Homeownership comes at high initial costs that can either be afforded by saving, which requires time and a surplus of income, or by a bank loan or mortgage. The latter usually requires a considerable down-payment which hinders people without savings from becoming homeowners (Lennartz & Helbrecht, 2018; Mulder & Wagner, 1998). In the case of young adults, not only their individual income and savings are important, but also potential intergenerational support from their parents. This includes regular financial support, (interest-free) loans, but also inheritance or gifts of capital or real estate itself (Lennartz & Helbrecht, 2018). Resources are largely reflected by income, regardless of its source. The household income covers all regular income flows and, furthermore, includes the possibility to save money for larger investments in the future. Thus, the first hypothesis to be tested is:

H1: The higher the individual and/or parental household income, the higher the likelihood of owning. The lower the financial resources, the higher the likelihood of living in a sublet dwelling or a dormitory.

Since savings can only be accumulated over time, age functions as a proxy for the potential to earn money and save up. People who live in their parental home usually do not or only slightly contribute to their parents' housing and living costs, which yields the potential to save a larger share of their individual income. The longer young adults can benefit of a stage in the life course with low living costs, the greater the potential to save up to afford a home or the down-payment for a mortgage. Similarly, the time spent in other, cheap housing tenures can be used to save. However, the disposable income to save might be smaller than while living in the parental home due to larger share of individual living costs. This age-effect incorporating saving potential is addressed in the second hypothesis:

H2: The higher the age at leaving the parental home, the higher the likelihood of owning.

Second, housing decisions are reflecting preferences about the quality and type of housing, but also ideas about lifestyles, i.e., flexibility or stability, or social norms that apply to particular stages of in the life course. For the study of housing, a general assumption is that owning relates to a higher quality of housing compared to renting (Mulder & Wagner, 1998). Owners have

more control over the realisation of their preferences regarding the design and shape of their home, while renters are largely restricted to their landlord's guidelines. Larger renovations and customisations representing individuality are often beyond the scope of renters, since they would alter the property of the landlord. In an isolated consideration of housing decisions, a general preference for owning would seem logical. However, young adulthood is not only about preferences in material terms. Apart from resources restricting the entry into homeownership, people may have preferences in other life domains that contradict with owning. One concept that covers these interdependencies and contradictions between life domains and housing is flexibility. Young adulthood is a phase of high volatility since studying, being in vocational training or making early steps in employment might require spatial flexibility (Steinführer & Haase, 2009). Educational and professional, but also partnership opportunities might not coincide in one particular space. Adjustments in one of these domains are common and result in residential mobility, making homeownership less likely immediately after leaving the parental home. The time aspect is already addressed in H2, while preferences are reflected in the employment status. Consequently, the more flexible lifestyles of students and apprentices are covered in the third hypothesis:

H3: Being a student or in vocational training increases the likelihood of subletting and living in a dormitory and decreases the likelihood of owning.

Another dimension of preferences is the interdependency of partnerships and families with housing. Depending on the household composition, some housing tenures are more suitable than others (Mulder, 2003). Subletting or living in a dormitory is possible with a partner, but the small size and reduced privacy might impact the quality of the relationship. Furthermore, if both partners earn income, more expensive housing tenures are more affordable. Additionally, the size of housing is particularly relevant for parents. Dormitories are often not suitable to raise a child and sublet housing is often of a temporary nature and provides only limited space. Larger families require larger housing, which is usually found in detached family houses which are mostly owner-occupied in Germany (Kley & Stenpaß, 2020; Mulder & Wagner, 1998). These preferences of families and couples converge in the fourth hypothesis:

H4: Living with a partner and/or children decreases the likelihood to live in a sublet dwelling or a dormitory and increases the likelihood of owning.

In addition, preferences are shaped by family background and socialisation. A range of studies provided evidence of intergenerational transmission of housing preferences (i.e., Kley &

Stenpaß, 2020). There are two potential pathways through which this transmission can take place. First, as already indicated, parental homeownership is a form of asset and an indicator of parental wealth that can be transmitted intergenerationally. This support through resources can be used for purchasing a home, while children from renters might not have the possibility to receive this form of support. Since housing is an area in which high inequalities are present (Arundel & Ronald, 2021), it is important to consider this aspect of social class. Second, preferences are shaped beginning in early childhood, a stage in the life course in which parents have the greatest influence on their children. This interdependency between parents and their children can lead to path dependencies throughout the life course if the parents' resources and social norms lead children through their housing career. However, some of these early socialisation processes might be revised and replaced by later forms of socialisation and individualisation of preferences, for example when experiencing differing influences in study and work environments. Nonetheless, the socialisation and parental background might be of particular importance for the study of early tenure choices after leaving the parental home. Therefore, the fifth hypothesis is:

H5: Having parents who own their home increases the (long-term) likelihood of owning.

Third, housing decisions influenced by resources and preferences are made in a context which reflects not only the afore discussed life domains but also the housing market. Due to regional market differences, the nominal value of income and assets allows to acquire different types and quality of housing. In Germany, housing markets are especially tight in cities and densely populated areas, while rural regions are usually characterized by cheaper housing and more space for new properties. In the decision-making process these resource-based contextual considerations play an important role. Similarly, preferences can differ based on the context. Detached houses, which are often owner-occupied, are more common in less densely populated and suburban areas, while rented (and owner-occupied) flats in apartment houses and high-rise buildings are typically located in the centre of towns and cities (Kley & Stenpaß, 2020; Mulder & Wagner, 1998). In this interplay of housing costs and differently shaped residential areas, the distinction between urban and rural regions can be utilized as a proxy for the German housing market in the sixth and final hypothesis:

H6: Owning is more likely in rural than in urban areas.

In conclusion, the life course approach provides a framework in which these different conceptualisations of tenure choice determinants can be considered and interdependencies

between life domains are acknowledged. Beyond the axiomatic assumption that actors make rational housing choices for their wellbeing, the approach is complemented by socialisation and context effects. This theoretical framework is used to model the housing tenure choice of home leavers with the GSOEP data.

## 4. Data and Methods

In this section, I introduce the GSOEP data and delineate the data preparation process including the operationalisation of the dependent and independent variables. Additionally, I record the sample selection process and assess potential issues of panel attrition. Finally, the multinomial logistic regression is described as the method of analysis in this thesis.

### 4.1 The German Socio-Economic Panel

The dataset used in this analysis is wave 36 of the German Socio-Economic Panel (GSOEP). The annual study is located at the German Institute for Economic Research DIW and data was collected by Kantar Public (Liebig et al., 2021). The GSOEP is a representative household panel study of Germany that started in 1984 and surveys all members of a sampled household who are older than twelve years. The most recently available wave 36 was collected in 2019 and includes information on 32,050 individuals and 3,476 children from a total of 19,032 households from all so far published waves (Liebig et al., 2021). The GSOEP data has several benefits for the study of relocation behaviour and housing choice, especially in the context of leaving the parental home. The panel structure allows to track home leavers through various relocations and tenure changes. A benefit for this purpose is the fluid panel structure of the GSOEP, which keeps individuals who leave an initially sampled household in the panel and adds their new household and all its members to the panel. Each individual therefore has a never-changing person ID and a time-variant household ID. Depending on the extent of panel attrition, full housing careers over the life course of individuals can be assessed in the data. Compared to other longitudinal datasets, like life history interviews that rely on retrospective statements, the GSOEP comprises regularly measured information on individual and household level characteristics. This includes a range of socio-economic and socio-demographic determinants, as well as rich information on the participants' housing situation, i.e., the household composition and tenure type.

### 4.2 Sample Selection

The sample selection process is divided into two parts. First, sample cuts were performed due to the requirements of the analysis. The 90,810 persons with 694,013 observations (person-years) that are part of the GSOEP wave 36 were therefore reduced to 5,583 persons who ever left their parental home in the panel. From these, another 544 persons were dropped who were older than 25 at their first observation since they may have left and returned before they and their parental household entered the GSOEP. Another 25 persons were dropped because they

were older than 39 when they left the parental home, as these moves are not of interest for the research topic of this thesis, which focuses on young adults. Furthermore, 315 so called 'boomerang-children' who returned to their parental home were censored before returning to only capture their individual tenure choice after leaving. This is important since the tenure type of their parental home is not the result of their individual decision-making but of their parents'. This process of dropping observations only affected observations at least one year after leaving, therefore no persons but 2,111 observations (person-years) were dropped. Another nine persons who had missing values for individual survey years were dropped because I could not determine if they lived in their parental home or somewhere else in these missing years. Lastly, observations (person-years) before leaving and after the five-year period of observation were dropped. Second, further sample cuts were performed due to missing values on the independent variables. Before dropping those in total 529 individuals, I tested if the distribution of tenure choice of people with at least one missing value differed from those without missing values (see Appendix, Table A1). Since there are differences in the frequencies, the final results are potentially biased towards a higher share of homeowners compared to the other outcomes.

After dropping individuals with missing values, the final analytic sample consists of 4,312 home leavers from which 2,401 were observed until five years after leaving their parental home. This stark reduction in the number of observations can be referred censoring and panel attrition. First, censoring restricts the possibility to follow people over the full period of observation until five years after leaving the parental home. As indicated, I censored 315 boomerang-children and dropped their observations after returning to the parental home. Additionally, there is 'natural' censoring among the cohort that left the parental home in the most recent period 2015-2019 since data is available until 2019. For example, home leavers who left in 2017 could only be followed for two more years and are therefore censored after their third observation. Compared to the censoring of boomerang-children, the extent of this natural censoring is rather small, since the number of home leavers in the most recent period category (2015-2019) reduces the sample by 233 home leavers over the five-year period. Second, as most panel studies, the GSOEP is not exempted from general panel attrition. The extent of unsuccessful follow-up interviews in the GSOEP is rather small. Most often, more than 99 % of the sampled households are successfully interviewed in the subsequent wave (Siegers et al., 2021, p. 72). However, being younger than 25, moving out of a GSOEP household and moving to a new address are all negatively associated with the likelihood of a successful follow-up interview (Siegers et al., 2021, p. 76). These insights on panel attrition in the GSOEP data point to the direction that I will miss out on some home leavers who left their parental household but could not be kept in

the GSOEP sample. Additionally, some cases might be censored due to difficulties in panel maintenance because of a high frequency of moves or phases of unattainability in the phase of young adulthood. The slight increase in mean age at leaving over the five years after leaving (compare Table 1) indicates that especially young home leavers are censored, strengthening the argumentation of high volatility and associated likelihood of panel attrition.

### 4.3 Operationalization

The dependent variable of the analysis is the housing tenure type. It distinguishes between the four categories owning, renting, subletting, and living in a dormitory. The basis for this measure is the variable *hgowner* which assesses the tenure of GSOEP households. Additional information on dormitories is collected from the variable *wum2*, an item addressing if the participant is living in an institutional home or dormitory. Starting from the immediate tenure type after leaving the parental home, the variable is measured each year and accounts for potential changes in the tenure type. Note that this measure does not assess relocations or moves but changes in the tenure. A change in tenure does not imply a move since individuals could become owners of a dwelling which they rented and inhabited previously. Vice versa, a move does not imply a change in tenure. Since the number of individuals subletting and living in dormitories decreases rapidly from an already low level (compare Table 2, section 5.1), an additional dependent variable is constructed for the analysis at later time-points, i.e., three or five years after leaving. In this variable, the two categories are combined to keep the number of cases at a high enough level while still differentiating between more than two tenure types.

The independent variables are categorized in four groups depending on their level and relevance: time-constant and time-varying individual characteristics, time-lagged characteristics of the parental household, context factors, and control variables. For individual characteristics, the age at leaving the parental home was calculated by subtracting the individuals' birth year from the year of the (first) move-out from the parental home. The considerable difference compared to results from other studies on home leaving in Germany can, partially, be attributed to an inaccuracy in measurement. Due to my simple calculation based on annual figures, the discrepancy between the actual age at leaving and the age I measured tends to be quite large. Furthermore, GSOEP data is usually collected between January and September with most interviews taking place at the beginning of this period (Glemser et al., 2020). As many young adults leave after the end of the school year into employment or tertiary education, they probably leave between August and October. In consequence, the age at leaving is prone to be overestimated. Annual household income

(expressed in thousand EUR) is based on the variable *i11102* which comprises all household incomes from labour, private assets, private and public transfers, and social security pensions, minus the total family taxes on these income flows. Education is measured based on the CASMIN classification (Brauns et al., 2003) and recoded into three categories low, middle, and high. The low category includes inadequately completed education, general elementary school, and basic vocational training. In the middle category, individuals with intermediate general qualification and intermediate vocational training are included. The high category covers individuals with a general maturity certificate, a vocational maturity certificate or tertiary education. For those individuals who were in school during some of their earlier surveys, the first known educational rank was reduced by one unit under the assumption that people in school aiming for a degree have already completed a lower degree earlier. Someone who is in high school and close to completing their Abitur (which would indicate a high level of education) is therefore ranked in middle education. For the employment status, measures of employment (*pgemplst*), labour force status (*pglfs*), and registered unemployment (*plb0021*) were combined to construct a variable consisting of four categories: Full-time employed, part-time employed, in education/vocational training, and unemployed/not working. Finally, the household composition is based on the household typology (*hgtyp1hh*), covering single households, single parents, couples with children, couples without children, and other living arrangements. As an addition to the household composition, a lagged dummy variable considers the relationship status if the individual's partner does not live in the same household, for example, in living-apart-together (LAT) relationships. This measure is lagged by one year to account for changes in the tenure type due to partnership formation and cohabitation. Because partnerships outside of the household were not recorded in the GSOEP before 1991, person-years without the necessary information were coded as "Question not Part of Survey" to avoid problems in the sample selection. Apart from the lagged LAT-dummy, all individual characteristics are measured at the same time as the outcome.

Two characteristics of the parental background are considered in the parental household income and the parental tenure type. Both variables are measured one year before leaving to consider the background from which the home leavers originate. For the tenure type, I distinguish between owned and rented parental homes. The operationalisation of the parental household income is identical to the home leavers individual household income after leaving. As a context variable and proxy for differences in the German housing market which are, e.g., apparent in greater demand and higher housing costs in the big cities (Kofner, 2014, p. 258), a measure of

region was added in form of a rural-dummy. Since the necessary variable *regtyp* was added to the SOEP in its second wave in 1985, I replaced missing values in 1984 by the value from 1985 if there was no move or relocation of the household recorded between the two waves. Finally, control variables included are sex, migration background, the period of observation measured in ten-year intervals starting in 1985 and, depending on the model, a lagged version of the independent variable to control for the tenure type of the previous wave.

**Table 1: Means and Frequencies of Dependent and Independent Variables**

	Years since Leaving							
	0		1		3		5	
<b>Housing tenure</b>								
Renting	3,359	77.90%	2,961	79.49%	2,277	79.17%	1,809	75.34%
Owning	324	7.51%	338	9.07%	394	13.70%	468	19.49%
Subletting	476	11.04%	330	8.86%	171	5.95%	106	4.41%
Dormitory	153	3.55%	96	2.58%	34	1.18%	18	0.75%
<b>Housing Tenure (Simplified)</b>								
Renting	3,359	77.90%	2,961	79.49%	2,277	79.17%	1,809	75.34%
Owning	324	7.51%	338	9.07%	394	13.70%	468	19.49%
Subletting/ Dormitory	629	14.59%	426	11.44%	205	7.13%	124	5.16%
Age at Leaving	23.87	(3.53)	23.94	(3.54)	24.06	(3.58)	24.09	(3.54)
Annual HH Income (in 1000 EUR)	16.88	(12.42)	20.12	(12.47)	23.68	(13.68)	27.38	(15.31)
Annual Parental HH Income (in 1000 EUR)	44.71	(29.84)	44.36	(28.93)	43.35	(30.88)	42.24	(30.85)
<b>Level of Education</b>								
Low	1,163	26.97%	988	26.52%	738	25.66%	614	25.57%
Middle	1,358	31.49%	1,159	31.11%	927	32.23%	762	31.74%
High	1,791	41.54%	1,578	42.36%	1,211	42.11%	1,025	42.69%
<b>Current Employment Status</b>								
Full-Time Employed	2,266	52.55%	2,051	55.06%	1,746	60.71%	1,503	62.60%
Part-Time Employed	435	10.09%	405	10.87%	369	12.83%	301	12.54%
In Education/ Vocational Training	884	20.50%	621	16.67%	218	7.58%	117	4.87%
Unemployed/ Not Working	727	16.86%	648	17.40%	543	18.88%	480	19.99%
<b>Household Composition</b>								
Single	1,927	44.69%	1,478	39.68%	960	33.38%	653	27.20%
Single Parent	57	1.32%	64	1.72%	73	2.54%	76	3.17%
Couple without Children	1,673	38.80%	1,470	39.46%	984	34.21%	719	29.95%

Couple with Children	398	9.23%	522	14.01%	767	26.67%	899	37.44%
Other	257	5.96%	191	5.13%	92	3.20%	54	2.25%
Partner Outside of HH								
No	2,886	67.35%	2,685	72.14%	2,235	77.71%	2,029	84.58%
Yes	814	19.00%	604	16.23%	438	15.23%	323	13.46%
Question not Part of Survey	585	13.65%	433	11.63%	203	7.06%	47	1.96%
Parental Home Owned								
No	1,981	45.94%	1,701	45.66%	1,308	45.48%	1,106	46.06%
Yes	2,331	54.06%	2,024	54.34%	1,568	54.52%	1,295	53.94%
Period								
1985-1994	1,126	26.11%	919	24.67%	548	19.05%	340	14.16%
1995-2004	1,324	30.71%	1,184	31.79%	1,043	36.27%	924	38.48%
2005-2014	1,299	30.13%	1,145	30.74%	875	30.42%	807	33.61%
2015-2019	563	13.06%	477	12.81%	410	14.26%	330	13.74%
Rural								
Urban	3,113	72.19%	2,687	72.13%	2,086	72.53%	1,744	72.64%
Rural	1,199	27.81%	1,038	27.87%	790	27.47%	657	27.36%
Female								
Male	2,052	47.59%	1,785	47.92%	1,353	47.04%	1,120	46.65%
Female	2,260	52.41%	1,940	52.08%	1,523	52.96%	1,281	53.35%
Migration Background								
No Migration Background	3,245	75.26%	2,838	76.19%	2,211	76.88%	1,853	77.18%
First Generation	536	12.43%	460	12.35%	359	12.48%	294	12.24%
Second Generation	531	12.31%	427	11.46%	306	10.64%	254	10.58%
Observations	4,312	100%	3,725	100%	2,876	100%	2,401	100%

Column percentages within variables

Standard deviations in parentheses

#### 4.4 Analytical Approach

Apart from descriptive analyses providing insights on the distribution of housing tenures and their trajectories over time, I use multinomial logistic regressions (mlogits) to model the decision for a housing tenure type. In housing studies, the typical methodological approach is a logistic regression model in which the likelihood of renting is compared to that of owning (cf. Bayrakdar et al., 2019; Mulder & Wagner, 1998). If the dependent variable consists of more than two categories and is nominally scaled, multinomial logistic regressions are typically the method of choice (i.e., Clark & Mulder, 2000; Mulder, 2003; Mulder & Hooimeijer, 2002). The dependent variable in this thesis consists of four categories, but the number of persons subletting and living in dormitories decreases very quickly (compare Table 1 or Figure 1). Therefore, I collapsed these two categories for estimating models at later time-points, i.e., three and five years after leaving. In total, I estimated three different types of models: First, I estimated two models including the full four-category dependent variable immediately after

leaving the parental home and one year after leaving. For the latter, an additional control for the previous tenure type has been included so that the other parameters can be interpreted as associations with changes in tenure. Second, for later time-points, the collapsed housing tenure measure was used as the dependent variable in models with the same predictors and an adjusted control for the previous tenure type. For easier comparison, I estimated the collapsed models at the three major time-points immediately, three and five years after leaving. Third, simplified models at these time-points have been estimated. In these, only age at leaving, income quintile, and education were included for a meaningful transformation of the regression coefficients from log-odds to average marginal effects and, ultimately, probabilities. While the full models are used to identify and quantify the associations between the independent variables and the housing tenure controlling for all other predictors, the simplified models are used to focus on the change in the association between the socio-economic determinants and the housing tenure over time. Since I apply a cross-sectional method of analysis to panel data, the full models are controlled for period and standard errors are adjusted for the clustering of person-years in respondents.

## 5. Results

Before considering the multivariate results, I describe the sample with regard to characteristics of the young adults' home-leaving process and the distribution of tenure types in the subsequent years as a starting point in section 5.1. After this, the associations between individual, parental and contextual characteristics and the housing tenure choice are examined in the results of the multinomial logistic regressions in section 5.2.

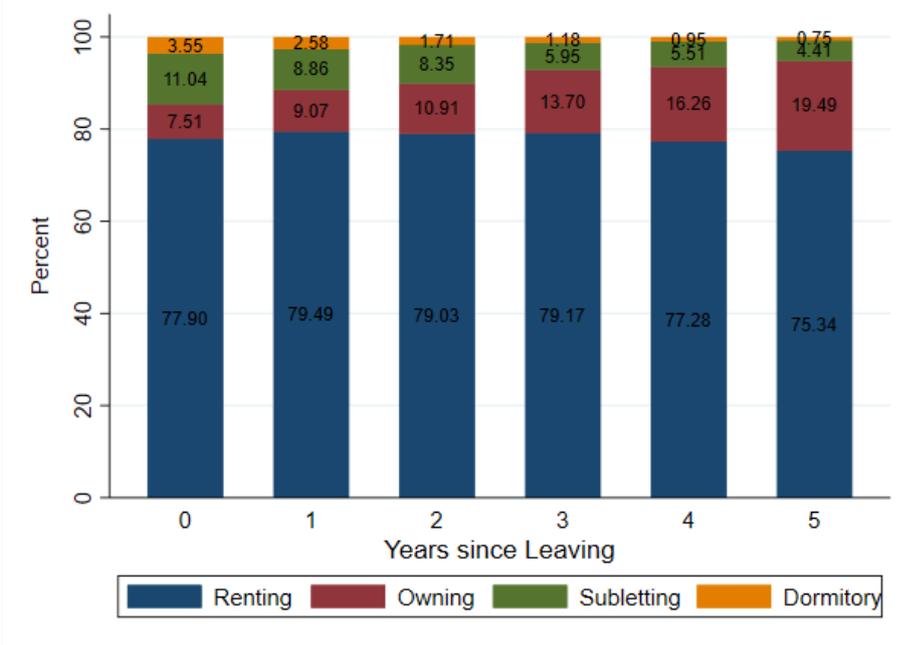
### 5.1 Descriptive Results

Table 1 provides insights into the socio-demographic characteristics of home leavers in the GSOEP data. The average age at leaving in the SOEP is approximately 24 years. As indicated, this value is potentially overestimated due to inaccuracy in the measurement of home-leaving and the timing of data collection. With regards to the living arrangement after leaving, a combined 48.03 % of home leavers cohabit with a partner or a partner and children. 44.69 % leave into single households and a minority of 1.32 % leave into single parenthood. The remaining 5.96 % are home leavers in other living arrangements, i.e., living in shared living arrangements (defined in the GSOEP as one economic entity with pooled income and expenditures) or with other non-parental relatives. Furthermore, more than half (52.55 %) of home leavers are full-time and 10.09 % part-time employed. 20.5 % leave their parental home as full-time students (including eventual simultaneous (part-time) employment) and 16.86 are unemployed or not working. While the share of not-working individuals is relatively stable below 20 % over the period of observation, the share of students decreases significantly, mainly due to transitions to (full-time) employment. Furthermore, there is a slightly unequal gender distribution among the home leavers that increases from 52.41 % female home leavers to 53.35 % over the period of observation. Finally, the vast majority of home leavers in GSOEP data are native Germans with 75.26 %.

Moving on to the description of the home leavers' housing tenures, a dominant pattern of renting persists over the first five years after leaving (Figure 1). Almost four out of five young adults leave their parental home into rented dwellings. Interestingly, the number increases slightly in the subsequent three years before a declining trend sets off. Whereas subletting is the second most popular tenure type immediately after leaving, owning takes this rank as soon as one year after leaving due to its steady increase from 7.51 % to almost 20 % after five years. Interestingly, the share of subletters decreases sharply after one and three years, supporting the perception of a rather temporary tenure. The second sharp reduction after three years coincides

with the end of the usual study period of Bachelor students. As students form the majority of home leavers that are eligible for dormitories, I expected a similar trend among those living in dormitories. However, the already small share of 3.55 % decreases sharply by circa one percent point per year in the first two years after leaving. After this, the decreases are more moderate until less than one percent of the sample lives in dormitories after four years. It shows that not all students living in dormitories stay in this tenure for their full study period but may use it as a first stage in their housing career. Finally, another stable pattern is present in the regional distribution, as three out of four home leavers live in urban areas over the full five-year period.

**Figure 1: Distribution of Housing Tenures after Leaving the Parental Home**



**5.2 Multivariate Results**

The results from the full multinomial logistic regression including all four tenure types immediately after leaving are presented in Table 2. Additionally, the full model one year after leaving can be found in the Appendix in Table A2. As the results are overall quite similar, I only point out the important differences and peculiarities while discussing the results from Table 2. For further comparisons between later time-points, I refer to Table 3 in which I estimated models with the collapsed housing tenure measure.

**Table 2: Multinomial Logistic Regression of Housing Tenure Immediately after Leaving**

	Owning	Subletting	Dormitory
Age at Leaving	0.107*** (0.0318)	-0.0524** (0.0190)	-0.117*** (0.0163)
HH Income Quintile (Ref: First)	ref.	ref.	ref.
Second	0.198	-0.292*	-1.265***

	(0.173)	(0.138)	(0.373)
Third	0.579*	-0.487*	-1.480
	(0.268)	(0.214)	(1.076)
Fourth	0.739*	-0.294	-15.70***
	(0.343)	(0.177)	(0.751)
Fifth	2.008***	-0.279	-0.871
	(0.198)	(0.147)	(1.208)
Education (Ref: Low)	ref.	ref.	ref.
Middle	0.168	0.184***	-0.128
	(0.111)	(0.0555)	(0.182)
High	-0.632***	-0.173	0.491***
	(0.0915)	(0.111)	(0.130)
Employment status (Ref: Full-time Employed)	ref.	ref.	ref.
Part-Time Employed	-0.172	0.580***	1.446**
	(0.121)	(0.132)	(0.539)
In Education/ Vocational Training	0.167	0.427**	1.311*
	(0.296)	(0.158)	(0.583)
Unemployed/Not Working	-0.269	0.361***	0.766
	(0.189)	(0.0125)	(0.550)
HH type (Ref: Single)	ref.	ref.	ref.
Single Parent	-0.821	-1.633***	-17.83***
	(1.289)	(0.383)	(0.584)
Couple without Children	-0.0933	0.0148	-1.784***
	(0.297)	(0.232)	(0.474)
Couple with Children	0.326	-0.384	-16.60***
	(0.357)	(0.379)	(0.608)
Other	1.152***	-0.00140	-17.30***
	(0.243)	(0.299)	(0.588)
Partner Outside of HH in Previous Year (Ref: No)	ref.	ref.	ref.
Yes	0.0382	-0.156*	-0.235
	(0.134)	(0.0622)	(0.284)
Question not Part of Survey	-0.271***	-0.431***	-0.0562
	(0.0627)	(0.0211)	(0.139)
Parental Home Owned	1.264***	0.509*	0.451***
	(0.147)	(0.204)	(0.101)
Parental HH Income Quintile (Ref: First)	ref.	ref.	ref.
Second	0.398*	-0.00391	-0.312
	(0.176)	(0.157)	(0.295)
Third	0.0692	-0.260	0.00345
	(0.118)	(0.177)	(0.291)
Fourth	-0.0151	-0.0262	0.215
	(0.270)	(0.132)	(0.447)
Fifth	0.356**	-0.167	-0.299
	(0.121)	(0.143)	(0.275)

Rural	0.448*** (0.0890)	0.334*** (0.0702)	0.0621 (0.352)
Female	0.129 (0.0826)	-0.0561 (0.107)	0.176 (0.272)
Migration Background (Ref: Native)	ref.	ref.	ref.
First Generation	-0.102 (0.323)	-0.233 (0.144)	-0.0546 (0.196)
Second Generation	0.201 (0.203)	0.0162 (0.118)	-0.189 (0.166)
Period (Ref: 1985-1994)	ref.	ref.	ref.
1995-2004	0.0330 (0.0205)	-0.115** (0.0364)	-0.290*** (0.0664)
2005-2014	-0.337*** (0.0407)	-0.440*** (0.0905)	-0.464*** (0.0704)
2015-2019	-0.550*** (0.0405)	-0.306*** (0.0900)	-0.631*** (0.0352)
Constant	-6.767*** (0.842)	-0.606** (0.198)	-0.377 (0.867)
Observations		4,312	

Standard errors in parentheses

Clustered Standard Errors: vce(cluster period)

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The coefficients for individual household income show a positive association between income quintiles and the log-odds of becoming a homeowner. With increasing effect sizes and significance levels, a higher income is positively associated with the likelihood of becoming a homeowner. Being in the fifth income quintile increases the log-odds of owning compared to renting by two units, supporting Hypothesis 1 which predicted higher income to be associated with a higher likelihood of owning. In contrast, a higher income is negatively associated with subletting and living in a dormitory. The pattern is not as clear as for owning, though. Especially for living in a dormitory, a surprisingly large effect for the fourth income quintiles stands out, which can be attributed to the small number of people living in dormitories (compare Table 1 and Figure 1). After one year (Table A2), the income effects have the same direction. For parental income, insignificant effects prevail after controlling for individual characteristics. Only the second and fifth quintile show significant and larger effect sizes for owning, whereas small and insignificant effect sizes are found for the other tenures. In consequence, the second aspect of Hypothesis 1 finds only little support, putting emphasis on individual characteristics for the decision on a tenure type.

As expected in Hypothesis 2, the age at leaving is positively associated with the log-odds of owning relative to renting as the reference outcome. A one-year increase in the age of leaving

increases the log-odds of owning by 0.1 units while controlling for other variables. In contrast, a higher age at leaving is associated with decreases in the log-odds of subletting and living in a dormitory. These findings strongly support the stated hypothesis and show that younger home leavers tend to leave into dormitories, while older home leavers potentially benefit from a longer saving period while living in the parental home.

Hypothesis 3 set a focus on dormitories and proposed that students and apprentices are more likely to choose this tenure type. There is a strong but marginally significant effect of being in education or vocational training on living in dormitories. Similarly, no significant effect on the log-odds of owning is evident. The low level of significance could be result from the combination of students and apprentices in the respective employment-status category. For further insights, the educational level can be taken into consideration for further insights. High education increases the log-odds of living in a dormitory and decreases the log-odds of homeownership. From a human capital perspective, the investment in education does not immediately pay off in financial terms whereas less educational attainment increases the short- and mid-term earning potential that can be used to become a homeowner. Since Hypothesis 3 explicitly referred to students and apprentices and not the level of education, the findings provide no support for the expected association.

There is no significant impact of household composition on the log-odds of subletting. For dormitories, the effects are, as expected, negative and of large size. This is no surprise given the limited space in the typical one-room appartements in dormitories which make cohabitation or living with children – often by regulation – unlikely. Similarly, the limited space and privacy can be referred the negative effect of single parenthood on the log-odds of subletting. Overall, the findings support Hypothesis 4 which expected couples and families to have a smaller likelihood to live in dormitories or sublet dwellings. Additionally, the lagged variable for partnership gives further insights on the tenure choice. Being in a relationship while living in the parental home decreases the log-odds of choosing a sublet dwelling or dormitory when leaving the parental home. This can be attributed to the limited possibilities of cohabitation and lack of private space in these tenures.

In Hypothesis 5, a positive effect of parental homeownership on the likelihood to own was stated. The results show that parental homeownership increases the log-odds of all housing tenures in comparison to renting. While the strong and significant effect on homeownership is in line with the theory and supports the hypothesis, the positive effects on subletting and dormitories are surprising. One explanation for these effects can be seen to the lack of further

controls for parental background apart from parental income. As parental homeownership in this case is a proxy for socio-economic status and parental education, the positive effects could result from an indirect effect. High status parents could affect the individual tenure choice through promoting higher education to their children which decreases their chances of becoming homeowners immediately after leaving. As Hypothesis 5 also included the long-term likelihood of homeownership, a look at the coefficients from the second model (Table A2) is worthwhile. Here, the directions of the effects are more in line with the theory, although none of the effects is significant. For further mid- and long-term effects, I readdress this point in the results from the collapsed models (Table 3).

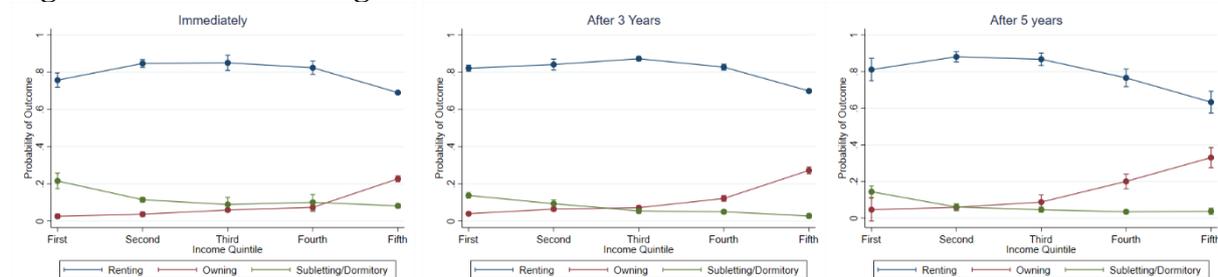
Finally, the contextual effect of rural environments addressed in Hypothesis 6 finds support in the positive effect on owning and subletting. Homeownership is more likely to be found in rural regions. As the typical form of owner-occupied homes are family houses, either detached or semi-detached, which are usually found in rural areas in Germany (Kley & Stenpaß, 2020; Mulder & Wagner, 1998), this is in line with the expectations. In contrast, dormitories are typically located in close distance to universities in the centre or periphery of cities. However, the rural effect on dormitories is very small and not significant, which can be referred to other, non-student dormitories in the context of vocational training. These are not necessarily located in urban regions as the facilities are smaller and not tied to the long history of German university cities. Furthermore, no significant effects for home leavers from migrant backgrounds are found after controlling for other variables. Still, the effect sizes are considerable and, especially, first-generation migrants are more likely to rent than to choose one of the alternative tenures. Surprisingly, second-generation migrants have a higher chance to become homeowners than natives and first-generation migrants. Finally, the period controls show a trend of increasing popularity of renting compared to the other tenures. During and after the housing crisis of 2008, no effect on immediate homeownership after leaving can be found, which is in line with the resilience of the German housing market to the effects of the crisis on housing prices (Kofner, 2014; Voigtländer, 2014).

Besides the mentioned differences, the comparison of the models immediately and one year after leaving shows that homeownership is either chosen immediately after leaving or at later time-points since many of the positive, significant effects from Table 1 turn insignificant in the subsequent year after controlling for the previous tenure type. For this control variable, the expected pattern of large and significant effects for no change of the previous tenure is found. However, there are surprising effects of transitions from homeownership to subletting and

living in dormitories. I tried to identify those individuals who made these transitions and found most of them were subletting for only one year. Subletting in these cases appears to be an interim period after their homeownership has come to an end. Reasons for these transitions could be special circumstances or life-course events like homeownership due to marriage or cohabitation and subsequent separation. Alternatively, homeownership as measured in this thesis can also be the tenure of people co-residing with non-parental relatives or others, who own their home. Given the high residential mobility in young adulthood and repeated changes of tenure due to union formation and dissolution, short-term stays in different places, and university exchanges abroad, the yearly measurement of tenures does likely not cover all transitions and tenures. In consequence, these rather unexpected transitions can show up.

Immediately after leaving, the model with the collapsed tenure categories (Table 3) provides no differences compared to the full model. Only small deteriorations in the third decimal point are found in the effects on owning. The effect sizes and directions of subletting appear to be dominant in the collapsed category due to the larger share of subletters (compare Table 1 or Figure 1). With regards to Hypothesis 1, an increase in the effect of individual income quintiles can be found after three years, which is not evident after five years, when only the fifth income quintile shows a positive, significant effect on the log-odds of owning. In contrast, the effect sizes for the alternative tenures are insignificant and close to zero at the later time-points. Additionally, the average marginal effects of income the simplified models (without control variables apart from education) are depicted in Figure 2 at the three time-points. Immediately after leaving, living in a sublet dwelling or dormitory is more likely for all but the fifth income quintiles. In the subsequent years, the probability of owning increases as the other two tenures become less likely with increasing income.

**Figure 2: Predictive Margins of Income**



In the collapsed models, the expected age effect addressed in Hypothesis 2 decreases after controlling for previous tenure at the later time-points. Still, the initial pattern persists that later home-leaving is associated with owning whereas alternative tenures are more prevalent among people who left the parental home earlier.

**Table 3: Models of Housing Tenure (collapsed) after Leaving the Parental Home**

	Immediately after Leaving		After 3 Years		After 5 Years	
	Owning	Subletting/Dormitory	Owning	Subletting/Dormitory	Owning	Subletting/Dormitory
Age at Leaving	0.107** (0.0320)	-0.0658*** (0.0152)	0.0506** (0.0190)	-0.0536** (0.0164)	0.0679* (0.0294)	-0.0331* (0.0167)
HH Income Quintile (Ref: First)	ref.	ref.	ref.	ref.	ref.	ref.
Second	0.192 (0.174)	-0.511*** (0.104)	1.056*** (0.227)	-0.0787 (0.142)	-0.571 (1.186)	-0.656 (0.376)
Third	0.576* (0.270)	-0.661*** (0.199)	0.781 (0.487)	-0.255 (0.188)	0.310 (1.085)	-0.243 (0.352)
Fourth	0.738* (0.345)	-0.437** (0.155)	1.544*** (0.423)	0.0495 (0.254)	1.267 (1.000)	-0.406 (0.489)
Fifth	2.010*** (0.200)	-0.365** (0.134)	2.401*** (0.485)	-0.150 (0.469)	2.203** (0.726)	0.494 (0.518)
Education (Ref: Low)	ref.	ref.	ref.	ref.	ref.	ref.
Middle	0.164 (0.112)	0.136 (0.0725)	0.585 (0.451)	-0.0242 (0.239)	0.624* (0.263)	-0.0144 (0.252)
High	-0.624*** (0.0912)	-0.0113 (0.111)	0.272 (0.419)	0.0439 (0.254)	0.160 (0.463)	-0.149 (0.277)
Employment status (Ref: Full-Time employed)	ref.	ref.	ref.	ref.	ref.	ref.
Part-Time Employed	-0.160 (0.118)	0.755*** (0.170)	0.0185 (0.651)	0.299* (0.140)	-0.494 (0.728)	0.474 (0.356)
In Education/ Vocational Training	0.181 (0.303)	0.622** (0.203)	-0.0206 (0.558)	-0.194 (0.104)	0.264 (0.627)	0.541 (0.313)
Unemployed/ Not Working	-0.269 (0.191)	0.408*** (0.0826)	-0.120 (0.220)	0.184 (0.207)	-0.136 (0.249)	0.691 (0.499)

HH type (Ref: Single)	ref.	ref.	ref.	ref.	ref.	ref.
Single Parent	-0.829 (1.286)	-2.015*** (0.420)	0.529 (1.250)	-1.719 (0.994)	-0.471 (0.270)	-0.860** (0.278)
Couple without Children	-0.106 (0.298)	-0.275 (0.193)	0.167 (0.195)	-0.752*** (0.189)	-0.105 (0.222)	-0.540 (0.558)
Couple with Children	0.318 (0.359)	-0.668 (0.391)	0.833*** (0.204)	-0.826*** (0.154)	0.768*** (0.225)	-0.527 (0.311)
Other	1.134*** (0.243)	-0.421 (0.282)	0.667 (0.424)	-1.503** (0.528)	0.401 (0.615)	-0.293 (0.376)
Partner Outside of HH in Previous year (Ref: No)	ref.	ref.	ref.	ref.	ref.	ref.
Yes	0.0365 (0.130)	-0.171 (0.101)	0.0669 (0.623)	-0.124 (0.147)	0.188 (0.165)	0.0851 (0.196)
Question not Part of Survey	-0.266*** (0.0643)	-0.359*** (0.0262)	0.430*** (0.0578)	-0.439*** (0.0541)	-0.381*** (0.0927)	-0.856*** (0.213)
Parental Home Owned	1.263*** (0.151)	0.506*** (0.151)	0.189 (0.192)	0.168 (0.292)	0.0773 (0.327)	0.136 (0.213)
Parental HH Income Quintile (Ref: First)	ref.	ref.	ref.	ref.	ref.	ref.
Second	0.393* (0.177)	-0.0625 (0.163)	0.324 (0.324)	0.205 (0.345)	-0.356*** (0.0813)	-0.740*** (0.157)
Third	0.0739 (0.116)	-0.189 (0.198)	0.276 (0.191)	0.0389 (0.115)	-0.397 (0.501)	-0.769** (0.278)
Fourth	-0.0111 (0.268)	0.0335 (0.168)	-0.0767 (0.484)	-0.208 (0.182)	-0.194 (0.311)	-0.158 (0.342)
Fifth	0.354** (0.116)	-0.196* (0.0959)	0.0883 (0.337)	-0.303 (0.461)	-0.184 (0.157)	-0.163 (0.503)
Rural	0.443*** (0.0902)	0.282*** (0.0819)	0.342 (0.278)	0.552*** (0.127)	0.651 (0.348)	0.524 (0.269)

Female	0.133 (0.0827)	-0.0134 (0.0705)	-0.00102 (0.247)	0.0663 (0.199)	0.433** (0.147)	-0.558*** (0.159)
Migration Background (Ref: Native)	ref.	ref.	ref.	ref.	ref.	ref.
First Generation	-0.100 (0.324)	-0.200 (0.107)	-0.266 (0.450)	0.165 (0.173)	-0.274 (0.354)	0.379 (0.430)
Second Generation	0.200 (0.201)	-0.0271 (0.0754)	-0.314 (0.257)	-0.152 (0.356)	0.198 (0.367)	0.0880 (0.257)
Period (Ref: 1985-1994)	ref.	ref.	ref.	ref.	ref.	ref.
1995-2004	0.0309 (0.0213)	-0.145** (0.0445)	0.000692 (0.0314)	-0.177* (0.0704)	0.538* (0.228)	-0.112 (0.0904)
2005-2014	-0.336*** (0.0408)	-0.442*** (0.0911)	-0.122 (0.129)	-0.134 (0.0832)	0.0653 (0.245)	-0.229 (0.142)
2015-2019	-0.554*** (0.0408)	-0.376*** (0.0941)	-0.565*** (0.139)	-0.355** (0.117)	0.542* (0.218)	-0.475** (0.171)
Previous Tenure type (Ref: Renting)			ref.	ref.	ref.	ref.
Owning			5.762*** (0.573)	1.631*** (0.436)	5.974*** (0.181)	1.615*** (0.468)
Subletting/Dormitory			1.181** (0.372)	3.289*** (0.141)	1.455*** (0.377)	3.598*** (0.0514)
Constant	-6.747*** (0.849)	0.0624 (0.119)	-6.909*** (0.248)	-1.700*** (0.444)	-7.068*** (1.674)	-1.922** (0.603)
Observations		4,312		2,874		2,401

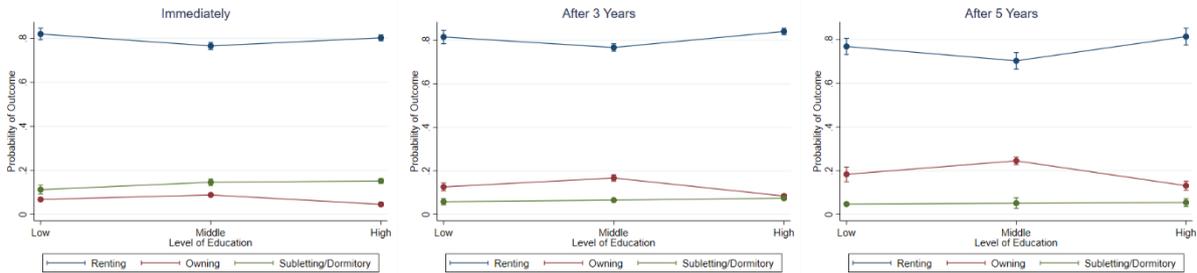
Standard errors in parentheses

Clustered standard errors: vce(cluster period)

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The positive effect of being a student or in vocational training on the log-odds of subletting or living in a dormitory persists at later time-points in a clear pattern, although the significance levels decrease. As the standard period of study in Germany is three years for Bachelor and an additional two years for Master students is crossed at the time-points of interest, the number of students reduces starkly (compare Table 1), which explains the lack of significant effects. On the other hand, homeownership remains unlikely without stable employment. Looking at the marginal effects of the three educational levels (Figure 3), an interesting development can be noted. Whereas owning is less likely than subletting or living in a dormitory for all educational levels immediately after leaving, this pattern shifts after three years for low and middle educated individuals. Five years after leaving, highly educated home leavers still have the smallest probability to be a homeowner compared to their low and middle educated peers. Again, the investment in human capital in form of higher education appears to cause postponement of homeownership. Differing preferences and lifestyles might explain this difference in the probability of becoming a homeowner. Overall, the mid-term trajectories point in the direction expected in Hypothesis 3 but lack significance for the employment-status categories.

**Figure 3: Predictive Margins of Education**



The effects of household composition at later time-points confirm the expectations from Hypothesis 4 as only single households are likely to live in dormitories. The surprising effect of the “Other”-category on owning decreases in size and significance over time. In contrast, couples and families are more likely to be homeowners after three and five years compared to immediately after leaving.

Hypothesis 5 explicitly emphasized the long-term effect of parental homeownership on the individual likelihood of becoming a homeowner. However, the initially large effect reduces to almost zero after five years and is not significant anymore. It appears that the effect is primarily relevant for immediate homeownership, as the control for previous tenure seems to reduce the parental effect.

The urban-rural differences remain stable as homeownership is more likely in rural regions at all time-points. However, the effects are not significant and subletting or living in a dormitory are also more likely in rural regions. Additionally, the period controls show that the transition to homeownership takes place later in the more recent periods. The effect of “2015-2019” on owning is negative immediately and three years after leaving but turns positive after five years. Lastly, the controls for previous tenure type resemble the already discussed transition pattern from the full model. Again, there are positive effects for the transition from owning to subletting or living in a dormitory which might be explained by the indicated possibility of homeownership not caused by purchase but shared living arrangements with other family members.

## 6. Conclusion and Discussion

To conclude, I briefly summarize the objectives and main findings of my thesis before discussing them in consideration of the existing literature. Finally, I address the strengths and limitations of this work and derive recommendations for future research.

### 6.1 Conclusion

In this master's thesis I examined the housing tenures of young adults after leaving the parental home. More particularly, I distinguished between four tenure types in renting, owning, subletting, and living in a dormitory and applied a life course approach to explain the tenure choice in the five-year period after leaving the parental home. I assessed the associations between individual, background and contextual characteristics and the choice of a housing tenure using multinomial logistic regressions. The descriptive analysis of the distribution of tenure types showed that renting is the most common tenure of young adults in Germany. Four out of five home leavers transition to rented dwellings when leaving the parental home. While the share of renters decreases slightly over the five years, the share of homeowners increases from an initial 7.5 % to almost 20 %. Whereas subletting and dormitories provide less space, privacy and quality of housing than renting or owning, they pose a cheaper and more flexible tenure type. Immediately after leaving, 11 % of young adults live in sublet dwellings and a share of three percent live in dormitories. Over the five-year period, these shares decrease significantly due to transitions to renting and owning.

I performed multinomial logistic regression analyses with data from GSOEP to provide insights into the determinants of the tenure choice. As the housing costs differ significantly between the four tenure types, income is an important predictor as it increases the log-odds of owning significantly. The income effect intensifies over the five-year period of observation since more financial capital can be accumulated from high incomes. Furthermore, later home leaving is, as expected, positively associated with homeownership due to an increased saving potential. Surprisingly, parental income and parental homeownership only increase the log-odds of owning immediately after leaving but I did not find evidence for these effects at later time-points. Subletting and dormitories are predominantly chosen by singles and highly educated home leavers. In contrast, couples with children have a higher likelihood of becoming homeowners. Flexibility and uncertainty in daily activities and employment, like studying, being in vocational training or being unemployed decrease the log-odds of owning and make alternative tenures more likely over the full period of observation. Finally, no significant gender

differences are found and, surprisingly, no significant differences between natives and migrants are found after controlling for income and education.

This thesis emphasizes that housing tenure choices of young adults are characterized by high volatility, as are various other life domains during this life course stage. Particularly those leaving their parental home for higher education enter the housing market at younger ages and have consequently little resources to compete on the housing market. As my results suggest that the residence time in dormitories and sublet dwellings seems to be rather short, the needs and preferences might not be satisfied in these tenures. It depends on the perception of the role of dormitories if policy makers and custodians adjust dormitories to these needs and preferences, for example, by adding more privacy and control for the tenants. Dormitories can either function as a first step in the housing career in a (potentially) new city or as a viable option for the full study period. The regulations and conditions of dormitories could be adjusted by offering longer contracts and giving the tenants more control over their home. However, if dormitories become eligible for a longer period, subsequent cohorts of students might face even more problems finding affordable housing. Authorities should therefore carefully assess the options for relaxing the German housing market and consider the changing preferences and needs of young adults. Another aspect evident in my results is that homeownership is strongly determined by household composition. Union and family formation seem to alter the preferences and require stability and security in housing and other life domains. It is therefore difficult to break down the needs and preferences of young adults into flexibility and mobility. In contrast, housing is part and result of the multidimensional interplay of various life domains. Consequently, policies should recognize this multidimensionality and adjust their measures adequately.

## 6.2 Discussion

In general, the findings of this thesis support the hypotheses derived from literature and theory. The importance of resources in form of income and saving potentials is evident in the GSOEP data, as higher income increases the log-odds of owning and decreases the log-odds of subletting and living in a dormitory. Particularly the individual income effect on owning is in line with the existing literature on young adults' housing decisions (Bayrakdar et al., 2019; Clark et al., 1997; Mulder et al., 2002). Surprisingly, the effect of parental income appears to be relevant only immediately after leaving. While this finding is in line with results focusing on the immediate housing choices of home leavers (Clark & Mulder, 2000), later transitions to homeownership seem to be determined mainly by individual resources. Similarly, the effect of parental homeownership turns insignificant at later time-points, while general findings on the

transition to homeownership emphasize the importance of parental resources (Bayrakdar et al., 2019; Blaauboer, 2010). It appears that early transitions to homeownership are dependent on parental resources whereas later transitions are dependent on individual earnings and savings in the German context. The findings on the age at leaving provide further support for this thesis, as the effect size at later time-points is smaller than immediately after leaving.

As dormitories are not part of the open housing market but accessible for students, members of training facilities or people with special needs (given the measurement and operationalisation of the variable), the results are completely in line with the expectations. Interestingly, some studies on home leaving do not consider dormitories as independent living arrangements (Schwanitz & Mulder, 2015) or refer to semi-autonomy given the typically frequent contact and support between students and their parents in the United States' context of college education (Goldscheider & DaVanzo, 1989). In contrast, I decided to explicitly consider this selective group of home leavers and their subsequent housing careers. The findings for the effect of household composition emphasize the selectivity of these alternative tenure types. On the one hand, cohabitation with a partner, sharing with others (in form of a joint household with pooled incomes and expenditures) or having children are all negatively associated with subletting or living in a dormitory. On the other hand, couples (with children) have higher log-odds than singles to be homeowners, confirming the already established knowledge on the importance of union formation for homeownership in earlier research (Blaauboer, 2010; Mulder et al., 2006; Mulder & Hooimeijer, 2002; Mulder & Wagner, 2001). These effects of partnership developments and the insights from the employment variables stress the importance of other life domains, which are a central element of the life course approach (cf. Bernardi et al., 2019). Although not explicitly introduced in the framework and analysis of this thesis, stability in these life domains is important for the effects of these variables. Especially union stability is found to be relevant for the transition to homeownership (Krapf & Wagner, 2020). Furthermore, the effects of university enrolment and non-full-time employment on housing tenures underpin the preference for flexibility among these social groups during early adulthood (cf. Steinführer & Haase, 2009).

In contrast to the results for the main predictors, the control variables provide some striking differences with the state of the literature. After controlling for socio-economic determinants and household composition, no significant gender differences remain. However, findings from the Netherlands Kinship Panel Study suggest that the introduction of interaction terms for the individual predictors and sex could have provided a different picture (Blaauboer, 2010).

Furthermore, the period controls suggest that homeownership in the first years after leaving is less likely than in earlier periods. Five years after leaving, the effects of more recent periods on homeownership turn positive, indicating that later transitions to homeownership are more common in recent years. Although my results do not provide insights on cohort effects, this finding suggests a turnaround to the overall trend towards earlier transitions to homeownership in the 20<sup>th</sup> century (Mulder & Wagner, 1998).

### 6.3 Strengths and Limitations

With this thesis, I contribute to the literature on young adults' housing careers. By implementing a life course approach, several life domains and their interdependencies could be included in a comprehensive model that distinguishes between four tenure types. This detailed distinction of tenures is underpinned by the descriptive findings which showed that alternative tenures are particularly relevant in the phase of young adulthood and pose viable options for a considerable share of home leavers in Germany. With the choice of a multinomial logistic regression model for housing tenures at several time-points after leaving the parental home, I could not only examine the determinants of the different tenure types but also their changing trajectories over time.

As I used data from the representative and well established GSOEP, my analyses provide a valid assessment of the housing tenure choice of young adults in Germany. However, there are some limitations that are noteworthy. First, my sample of home leavers is very selective, since a considerable number of 529 home leavers were dropped due to missing values. The implementation of more advanced imputation methods, particularly for missing values on income, could have increased the validity of the results. This is, because robustness checks performed showed that the sample cut affects the distribution of housing tenures and may result in an overestimation of owning in my analyses. In consequence, the descriptive analysis must not be interpreted as a representation of housing tenures in Germany. This inference is furthermore not applicable since my sample of home leavers is not anchored to one cohort or one period but considers home leavers of different ages over a time span of 35 years.

Second, the measurement of the dependent variable is done in one-year intervals and therefore prone to underestimating transitions between housing tenures. A more detailed assessment of tenures would have been possible by assessing actual moves and the respective tenure instead of referring to the time-points of GSOEP data collection. Additionally, the measurement of the transition to owning is not backed by assessing if a dwelling was actually purchased. The suspiciously large effects of transitions from owning to other tenures might be referred to this

flaw in measurement. In the current operationalisation, homeownership due to moving in with homeowners in a shared living arrangements is recognised as a transition to owning, although no purchase took place. In similar vein, the measurement of age is solely based on annual data and not calculated accurately to the day.

Third and finally, the operationalisation of the theoretical concepts, particularly life domains as introduced in the life course cube, is lacking some detail. Particularly the employment, household composition and partnership variables would benefit from an operationalisation that considers the stability in these life domains. Recently, Bayrakdar et al. (2019) as well as Krapf and Wagner (2020) provided examples of implementing measures of union stability that similarly could be applied for stability of employment and daily activities. However, the aim of this thesis was to provide insights into the general determinants of housing tenure choice and alternative housing tenures during young adulthood. Future research on housing tenures could instead put more emphasis on the stability and fluctuations in the important life domains and their effect on tenure choices over the life-course. These could be particularly important for the assessment of flexibility in residential mobility and alternative housing choices that are increasingly relevant in sight of the recent housing shortages in German cities.

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## Appendix

### Ethical Considerations

By applying for the usage of anonymised, secondary data from the GSOEP, I agreed on the terms and conditions and complied to the strict provisions of German and European data protection law. I signed the data distribution contract indicating that only me as the only person working on this project has access to the data. I stored the data files in a safe environment on my private computer which is secure from access by third persons. Furthermore, I was the only person working with the data. As personal and sensitive information are available in the GSOEP data, I only worked with the data in a scientific manner in order to answer my research question and did not perform any additional investigations which would hurt the privacy rights of the GSOEP respondents.

**Table A1: Missing Values across Housing Tenures**

	Housing Tenure				Total
	Renting	Owning	Subletting	Dormitory	
No Missing Values					
No	1,245 81.6%	93 6.1%	134 8.8%	54 3.5%	1,526 100.0%
Yes	15,161 78.1%	2,334 12.0%	1,536 7.9%	386 2.0%	19,417 100.0%

**Table A2: Multinomial Logistic Regression of Housing Tenure 1 Year after Leaving**

	Owning	Subletting	Dormitory
Age at Leaving	0.0929 <sup>**</sup> (0.0244)	0.00260 (0.00547)	0.0484 (0.0946)
HH Income Quintile (Ref: First)	ref.	ref.	ref.
Second	0.106 (0.516)	-0.157 (0.210)	-0.358 (0.390)
Third	0.419 (0.745)	-0.333 (0.223)	-0.904 (0.933)
Fourth	1.157 <sup>***</sup> (0.308)	-0.324 (0.214)	-0.155 (0.816)
Fifth	1.619 <sup>***</sup> (0.348)	0.00867 (0.230)	1.267 (1.005)
Education (Ref: Low)	ref.	ref.	ref.
Middle	0.174	-0.172	0.0698

	(0.225)	(0.264)	(0.560)
High	-0.0800	-0.388	-0.00713
	(0.373)	(0.275)	(0.493)
Employment status (Ref: Full-Time Employed)	ref.	ref.	ref.
Part-Time Employed	0.539	0.534***	1.943*
	(0.319)	(0.157)	(0.846)
In Education/ Vocational Training	0.312	0.297*	1.911***
	(0.257)	(0.129)	(0.289)
Unemployed/ Not Working	0.687***	0.261	0.989
	(0.197)	(0.138)	(0.689)
HH type (Ref: Single)	ref.	ref.	ref.
Single Parent	-1.746**	-0.532	-13.35***
	(0.551)	(0.931)	(0.655)
Couple without Children	-0.0101	-0.283	-2.509***
	(0.329)	(0.250)	(0.477)
Couple with Children	0.0466	0.0163	-15.02***
	(0.334)	(0.344)	(1.784)
Other	0.0877	-0.237	-15.54***
	(0.764)	(0.396)	(1.070)
Partner Outside of HH in Previous Year (Ref: No)	ref.	ref.	ref.
Yes	-0.268	0.174	0.605***
	(0.246)	(0.156)	(0.148)
Question not Part of Survey	-0.571***	-0.253***	0.840**
	(0.109)	(0.0516)	(0.318)
Parental Home Owned	0.344	0.160	-0.102
	(0.303)	(0.149)	(0.174)
Parental HH Income Quintile (Ref: First)	ref.	ref.	ref.
Second	0.348	-0.102	1.388***
	(0.510)	(0.311)	(0.242)
Third	0.485	0.0891	0.590
	(0.386)	(0.364)	(1.049)
Fourth	0.285	-0.542***	0.664
	(0.312)	(0.113)	(1.059)
Fifth	0.306	0.172	0.458
	(0.650)	(0.389)	(0.734)
Rural	0.365*	0.248	0.562*
	(0.153)	(0.127)	(0.286)
Female	0.218	0.0141	-0.202

	(0.201)	(0.193)	(0.333)
Migration Background (Ref: Native)	ref.	ref.	ref.
First Generation	-0.166 (0.239)	-0.542*** (0.120)	-0.408 (0.245)
Second Generation	0.0467 (0.228)	0.0925 (0.241)	0.628 (0.739)
Period (Ref: 1985-1994)	ref.	ref.	ref.
1995-2004	-0.762*** (0.0516)	-0.161*** (0.0402)	-0.541 (0.294)
2005-2014	-0.878*** (0.0177)	-0.119*** (0.0343)	-0.890* (0.411)
2015-2019	-1.402*** (0.0626)	-0.452*** (0.0639)	-2.080*** (0.276)
Previous Tenure Type (Ref: Renting)	ref.	ref.	ref.
Owning	5.430*** (0.198)	1.456*** (0.382)	3.143*** (0.847)
Subletting	1.376* (0.548)	2.827*** (0.152)	2.100** (0.715)
Dormitory	1.157 (0.887)	1.993** (0.689)	7.304*** (0.965)
Constant	-6.980*** (0.932)	-2.629*** (0.380)	-7.935** (2.621)
Observations		3,672	

Standard errors in parentheses

Clustered Standard Errors: vce(cluster period)

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$