

KARIN TORPAN

Tenure transitions and
residential mobility of migrants:
evidence from three Nordic welfare states



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LIST OF PUBLICATIONS

This dissertation is based on the following publications, which are referred to in the text by Roman numerals:

- I Sinitsyna, A., **Torpan, K.**, Eamets, R., & Tammaru, T. (2021). Overlap between industrial niching and workplace segregation: Role of immigration policy, culture and country of origin. *Social Inclusion*, 9(2), 179–191. <https://doi.org/10.17645/si.v9i2.3640>
- II **Torpan, K.**, Sinitsyna, A., Kährik, A., Kauppinen, T. M., & Tammaru, T. (2022). Overlap of migrants’ housing and neighbourhood mobility. *Housing Studies*, 37(8), 1396–1421. <https://doi.org/10.1080/02673037.2020.1849574>
- III **Torpan, K.**, Wessel, T., Chihaya, G. K., Sinitsyna, A., & Tammaru, T. (2024). Migrant residential mobility and tenure transitions within different housing regimes: evidence from three Nordic capital cities. *Housing Studies*, 40(9), 2015–2037. <https://doi.org/10.1080/02673037.2024.2392690>

Author’s contribution to articles denoted by: ‘minor contribution; * moderate contribution; ** large contribution; *** leading role.

	Publications		
	I	II	III
Original idea	**	***	***
Study design	**	***	***
Data processing	***	**	***
Analysis	*	**	**
Interpretation	*	***	**
Manuscript writing	**	***	***

The contribution statement, in more detail, indicates that the original research idea for **Publication I** was collaboratively developed by the first author, Anastasia Sinitsyna, and the author, Karin Torpan. This publication represents a multidisciplinary study that examines economic phenomena through the lens of residential segregation research. Karin Torpan’s main contribution lies in expertise on residential segregation studies. In addition, the author contributed significantly to data preparation and processing, the formulation of the study design, and the editing of the manuscript.

The original idea for **Publication II** was developed by the author, who was responsible for formulating the research questions, designing the study, and processing and analyzing the data. The author also played a leading role in drafting, editing, and submitting the manuscript. The second author, Anastasia Sinitsyna, contributed with the expertise in econometrics.

1. INTRODUCTION

1.1. Motivation of the study

Globalisation, economic restructuring, the labour market, and neo-liberal politics have increased worldwide migration flows. The pushing factor is the growing wealth inequality between countries. Residential segregation between the poor and rich has widened globally (Van Ham et al., 2021), and similar trends are evident in capital cities across Europe, where immigrants from around the world have settled (Tammaru et al. 2015; Tammaru, Sinitsyna, et al. 2021). International migration to developed countries is at record highs, with rising labour migration and significant refugee inflows shaping the demographic and economic landscape. Labour migrants help to ease the pressures of ageing populations and alleviate labour and skill shortages across Europe (OECD, 2023), while refugees often arrive in search of safety and protection. However, alongside these benefits come pressing challenges.

A central challenge facing destination countries is the considerable strain that the arrival of migrant places on already pressured housing markets. This pressure, however, is mediated by long-standing affordability gaps, uneven regional price dynamics, and governance fragmentation that shape local supply elasticity and access to adequate housing (OECD, 2025; Phillips, 2020; Tammaru et al., 2023; White & Nandedkar, 2021). Furthermore, these markets can shift rapidly, especially in response to sudden migration flows, as seen with the arrival of many Ukrainians following Russian invasion of Ukraine in February 2022, which intensified demand and reshaped housing dynamics. Migrants, whether arriving as refugees or labour migrants, must secure shelter upon arrival, and the types and locations of housing available to them play a decisive role in shaping their opportunities for wider integration in the host societies (Galster et al., 2024). Limited access to affordable, quality housing often results in residential clustering into certain neighbourhoods, reinforcing patterns of residential segregation between ethnic and socio-economic groups. While research on residential mobility and housing has mostly developed in separate strands from studies on migration and integration, this dissertation addresses these two processes together, examining how the tenure transitions and residential mobility shape wider patterns of residential segregation and integration in European cities.

In this dissertation, *tenure transitions* refer to the sequences of tenure changes on the housing market that individuals experience over time, reflecting shifts between being a renter or homeowner and the socio-economic and institutional factors shaping these transitions. *Residential mobility* refers to the movement of individuals or households between neighbourhoods with varying levels of wealth, a process influenced both by personal aspirations and by structural constraints in housing and labour markets. *Residential segregation* emerges as an outcome of these dynamics, representing the degree to which newly arrived migrants are residentially separated from the native majority population because of their

sorting into particular housing tenures and neighbourhoods. *Residential integration*, in turn, refers to the process whereby residential separation between migrants and native majority population diminishes over time. High level of residential segregation or the lack of residential integration is thus a critical and visible indication of how migration reshapes urban space. For newcomers, the housing question emerges immediately upon arrival, not as an abstract policy issue, but as a pressing and practical necessity. Securing a place to live is often the first step in establishing a foothold in the host country, and in many contexts, a registered address is a prerequisite for obtaining a personal identification code. This, in turn, unlocks access to essential opportunities such as work, health care, and so on. Migrants typically begin their housing careers as renters, since homeownership often requires a financial commitment that is beyond their immediate reach. In other words, the housing choices of migrants, including most labour migrants, are constrained, and this limitation significantly shapes their integration trajectories. Furthermore, in many major cities, the influx of domestic migrants and international immigrants, combined with the growth of short-term rentals, has significantly driven up property prices (Fuller et al., 2020). This development disproportionately disadvantages immigrants and contributes to high levels of ethnic residential segregation.

According to the spatial assimilation framework (Massey & Denton, 1985; Massey & Mullan, 1984), residential mobility is a key dimension of social mobility and wider social integration of migrants. As immigrants improve their socioeconomic status after arrival in the host country, they may use their newly gained resources, such as income, to move into wealthier neighbourhoods (Kadarik, 2020; Modai-Snir & Plaut, 2021; Vaalavuo et al., 2019). This is typically regarded as a marker of successful integration into the host society. Yet the process of spatial assimilation is rarely straightforward, as it depends not only on the availability and spatial distribution of different types of housing across urban areas, but also on the tenure structure and the extent to which tenure forms, like public housing, are evenly distributed across neighbourhoods. As newly arrived migrants almost always begin their housing careers as renters, the tenure structure and its geographic distribution directly shape the neighbourhood choices of individual migrant households and, at the aggregate level, the extent of ethnic segregation. The size and geographic distribution of the public housing stock not only strongly shapes migrants' initial residential options but also influences subsequent patterns of residential mobility. Achieving homeownership requires a stable and sufficiently high income, but even when this is attained, many immigrants can only afford to purchase homes in less affluent areas where property prices are lower. Paradoxically, becoming a homeowner may therefore also involve moving into neighbourhoods with fewer resources, potentially reinforcing residential segregation of migrants from the native majority population.

Upon arrival in a new country, settling in segregated neighbourhoods may also benefit migrants, as it allows them to rely on co-ethnic networks and support, thereby helping them establish an initial foothold in the host society. However, living in highly segregated neighbourhoods is also widely regarded as one of the

most disadvantaged forms of settlement, and policies frequently aim to promote greater residential integration of migrants. These policies tend to address labour market integration more explicitly, while paying less attention to residential integration. This dissertation places residential at the centre of analysis. A substantial body of research addresses tenure transitions and residential mobility as separate processes, but far less is known about how they are interconnected and how they facilitate ethnic residential segregation and integration. To address this gap, this dissertation adopts a *comparative approach*, examining how these processes of tenure transitions and residential mobility unfold under different housing market structures and institutional arrangements. The empirical focus is on the Nordic welfare states, despite their reputation for relative homogeneity, differ markedly in their housing market structures. These differences provide a valuable context for investigating the central research problem of this study on how tenure transitions and residential mobility patterns shape residential integration among newly arrived migrants who initially settle as renters in lower-income neighbourhoods.

1.2. Research objectives

The overarching aim of this dissertation is to provide new insights into the links between post-arrival tenure transitions and residential mobility among migrants who initially settle as renters in low-income neighbourhoods. The main contribution of this work lies in examining the interconnections between the sorting of immigrants into specific housing tenure types and residential neighbourhoods and exploring how these processes are associated to their positioning in the labour market and the incomes they earn. Drawing on a comparative study of newly arrived immigrants in the Helsinki metropolitan area (Finland), Stockholm (Sweden), and Oslo (Norway), the dissertation addresses the following two empirical research questions:

1. **What are the labour market outcomes of migrants from different country-of-origin contexts?** This question focuses on two interrelated dimensions of labour market incorporation, industrial niching and workplace segregation, and examines how these outcomes influence migrants' opportunities in the housing market, which are explored in the second research question.
2. **How do tenure transitions and residential mobility patterns unfold for newly arrived migrants across different housing market contexts?** This question analyses the pathways migrants follow after their initial settlement as renters in low-income neighbourhoods, investigating how these trajectories vary across the distinct housing market structures of the three Nordic capitals and in relation to migrants' labour market outcomes.

By addressing these questions, this study deepens our understanding of the residential, housing, and labour market sorting mechanisms that shape migrants' integration trajectories. It offers fresh insights into ongoing housing policy debates on how to reduce housing inequality and residential segregation in migrant-receiving societies. Examining the links and overlaps between these different sorting processes for newly arrived immigrants across diverse housing market contexts proves especially valuable. The dissertation builds on three peer-reviewed journal articles that form part of an international comparative research effort. A conceptual diagram (Figure 1) illustrates the links between the publications and their integration within the overarching research framework. These complex questions could be addressed thanks to the use of detailed, individual-level longitudinal register data from Finland (Publications I, II, III), which allow tracking people over time and space, as well as comparable register data from Sweden and Norway (Publication III). The cross-country comparative perspective in the Publication III is crucial for understanding how policy frameworks and institutional arrangements can either facilitate or hinder the process of integration.

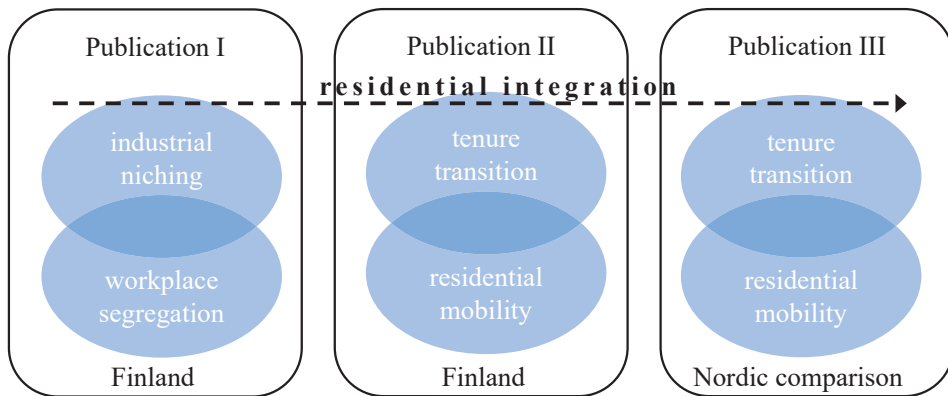


Figure 1: Conceptual structure and interconnections of publications.

Publication I examines immigrant segregation and integration within the labour market, with a particular focus on identifying and measuring the overlaps between of sorting into industrial niches and workplace establishments among newly arrived immigrants.

Publication II turns to the housing market and residential mobility, identifying and quantifying the overlap between sorting into housing tenure types and residential neighbourhoods.

Publication III extends the analysis across national contexts, seeking to learn how residential integration unfolds for migrants from diverse origin regions who initially settle as renters in lower-income neighbourhoods, and how these pathways differ under the distinct housing market structures of Helsinki, Oslo, and Stockholm.

2. THEORETICAL FRAMEWORK

2.1. Segregation at places of work and residence

Ethnic residential segregation is generally but narrowly explained as an income inequality outcome between majority and minority groups. Consequently, research on spatial inequalities and exclusion has mainly focused on residential segregation (Krysan & Crowder, 2017a; Musterd et al., 2017; Tammaru et al., 2021). Residential segregation is commonly defined as “the degree to which two or more groups live separately from one another in different parts of the urban environment” (Massey & Denton, 1985). In practice, it refers to the uneven distribution of population groups, distinguished by race, ethnicity, class, income, education, occupation, or other socio-economic characteristics, across urban neighbourhoods. This topic has one of the longest histories in urban research, tracing back to the seminal work of the Chicago School of urban sociologists in the 1920s. Scholars such as Robert E. Park and Ernest W. Burgess studied ethnic succession in American cities. They found that immigrant groups arriving in American cities, most famously Chicago, tended to cluster initially in poorer, centrally located neighbourhoods close to industrial jobs. Over time, as their socio-economic status improved, these groups often moved outward into more affluent areas. Park, Burgess, and McKenzie (1925) described this process as “invasion-succession” in their model of urban change. These early ecological models framed residential segregation as a dynamic and cyclical process driven by migration, social mobility and the spatial organisation of the city.

The Chicago School’s insights laid the foundation for later theoretical developments, the most influential of which include the spatial assimilation theory (Massey & Denton, 1988), and the place stratification model, which addresses structural constraints on integration (Alba & Logan, 1992; Bolt & van Kempen, 2010). Additionally, elements such as racial prejudice and discrimination (Krysan and Crowder, 2017; Verhaeghe and De Coninck, 2022) and residential preferences of immigrants have been as key explanatory factors (Clark, 1992; Schelling, 1971; Varady, 2021). Residential preferences play a crucial role in shaping segregation patterns. Research consistently shows that members of the native majority population tend to have a strong preference for living in neighbourhoods predominantly inhabited by their own group compared to migrants, either by leaving neighbourhoods with a high share of minorities or by avoiding these neighbourhoods altogether (Leetmaa et al., 2015; Öblom & Antfolk, 2017; Väisänen et al., 2024). For example, research from Sweden shows that natives tend to avoid high clusters of immigrants, both of European and non-European origin (Malmberg & Clark, 2020; Müller et al., 2018). Minority groups, in turn, may prefer to live in neighbourhoods where their own language and cultural practices are shared, often seeking areas with dense ethnically based social networks that provide support, help maintain ethnic identity and traditions, and foster the development of ethnic-oriented businesses and institutions (Dai et al., 2023;

Miltenburg, 2015; Walton, 2009). Such preference tends to be especially strong upon arrival to a new homeland.

Although arriving to new homeland finding a place to live is essential, still the main driver of migration is the economic inequality between countries, which favours geographic labour mobility. Migrants arriving from a less affluent countries are attracted by higher incomes in new homeland (Bhagwati & Hamada, 1974; Halbmeier, 2019). This economic motivation closely links migration to differences in the labour market. Newly arrived immigrants frequently enter lower-paid occupations that struggle to attract workers from the native majority population, leading to labour market segmentation and the clustering of migrants in specific industries and workplaces, such as construction or hospitality. Over time, this clustering fosters the development of ethnic industrial niches and segregation within workplaces (Ansala et al., 2022; Bygren, 2013; Cathy Yang Liu, 2011; Waldinger, 1994). The lower incomes associated with employment in these sectors, in turn, constrain migrants' housing choices, thereby transmitting ethnic inequalities in the labour market into higher levels of ethnic residential segregation.

New theoretical frameworks increasingly examine how segregation is transmitted from one life domain (e.g., the labour market) to another (e.g., the housing market). This shift has transformed segregation research into a multi-domain field of inquiry. Tamaru et al. (2021) have introduced the concept of the *vicious circle of segregation*, which explains how inequalities and segregation are produced and reproduced across interconnected arenas such as neighbourhoods, labour markets, and schools. These processes occur through selective sorting into each domain and the contextual effects they generate, such as differences in resources, social networks, and opportunities. The concept underscores that spatial inequalities in different life domains are not separate but deeply linked and intertwined with each other. In the following sections, I first review research on the links between segregation at home and at work. Next, I provide an overview of the patterns and drivers of housing and neighbourhood mobility, as well as their overlaps. In line with the vicious circle of segregation framework, these sorting processes do not operate in isolation but rather reinforce one another over time. I also extend this concept by highlighting within-domain dynamics, focusing on how housing transitions and residential mobility shape and reshape the spatial patterns of residential segregation and integration under different institutional and policy contexts.

2.2. Labour market as a driver of residential segregation

The number of migrants in the global labour force has steadily increased over time, reaching an estimated 167.7 million in 2022 (International Labour Organization, 2024). This growth places considerable pressure on policies governing how immigrants are incorporated into both labour and housing markets. For many immigrants, entry into the host-country labour market often occurs through

lower-paid, insecure jobs characterised by long working hours and limited benefits. These positions, which typically are less attractive to the native majority population, are concentrated in sectors such as construction, cleaning, care work, hospitality, and certain manufacturing industries (Ansala et al., 2022; Christopher & Leslie, 2015; Halbmeier, 2019; Sassen, 1990). Since the 2020 pandemic, platform-mediated gig work has grown significantly, offering new desirable employment opportunities for migrants, particularly in sectors like delivery, transport, and domestic services (M. Andersen et al., 2024; M. Andersen & Spanger, 2024). Over time, this pattern can lead to the formation of industrial niches and ethnically segregated workplaces. While the underlying drivers of workplace segregation and industrial niching are similar, they are often examined in separate strands of research. In this thesis, and specifically in Publication I, *workplace segregation* is defined as the overrepresentation of immigrants within specific workplace establishments, whereas *industrial niching* refers to the overrepresentation of immigrants in particular industry sectors.

Migration is a network-driven process that links people in their origin and destination countries through continuous flows of information, resources, and support (Massey et al., 1993). Just as newly arrived migrants often rely on ethnic networks to find housing in the host country, they similarly use these connections to secure employment. Hellerstein et al. (2011) demonstrate that labour market networks frequently form based on residential proximity, and that such networks play an important role in job search process. At the same time, the location of a workplace can also influence where an immigrant chooses to live, showing the bidirectional relationship between residential patterns and labour market close connection.

Although residence and workplace domains are clearly interconnected, relatively few studies have directly compared levels of residential and workplace segregation for immigrant groups. Research on the intersection of these domains has increasingly drawn on the “domains approach” to segregation (van Ham & Tammaru, 2016), which examines how patterns evolve over time across multiple spheres of daily life. Only in the past two decades have systematic studies emerged that analyse immigrant–native segregation in both residential and workplace contexts (Ellis et al., 2004, 2007; Hellerstein et al., 2011; Schnell & Yoav, 2001; Sparre & Nielsen, 2025; Strömberg et al., 2014). Ellis et al. (2004) found that migrants are generally less segregated in the workplaces than in residential neighbourhoods, although subsequent work by Wright, Ellis, and Parks (2010) additionally revealed that the connection between two domains are closely related and their geographies overlap to an important degree. Although these two life domains are clearly interconnected, relatively few studies have compared levels of residential and workplace segregation for immigrant groups. One such study, based on data from Stockholm, found that immigrants experience higher levels of residential segregation than workplace segregation (Strömberg et al., 2014). Furthermore, Marcińczak et al. (2015) found that, that in Stockholm immigrant groups that are segregated in residential patterns are more likely to be segregated also in workplace. Earlier is supported by studies of activity space concept,

showing that the individuals daily mobility occurs between relatively similar types of context in residential neighbourhood and workhood, moving from one segregated space to another (Garlick et al., 2023; Hess & Hall, 2024; Vachuska, 2023).

Just as residential outcomes for migrants are shaped by structural barriers and social processes, early disadvantages in the labour market have been linked to multiple mechanisms of discrimination and exclusion (Åslund & Skans, 2010; Devos et al., 2025). One important pathway operates through job-search processes that rely heavily on personal contacts and informal networks. Employment opportunities are often accessed via recommendations from already employed co-ethnics (Ioannides & Loury, 2004), meaning that newcomers are embedded in ethnically segregated labour market networks from the outset. For employers, these networks offer a low-cost and low-risk recruitment channel, as the trust in existing employees is transferred to recommended candidates (Hoffman, 2017). However, such reliance on ethnic hiring channels can have a dual effect: while it may lower entry barriers for newcomers, it can also reinforce industrial niching, as migrants become concentrated in a narrow set of occupations and sectors where their co-ethnics already work.

In some cases, ethnic clustering in employment is also driven by immigrant entrepreneurship, where business owners recruit co-ethnics to meet specific customer demands, provide culturally familiar services, or maintain authenticity in goods and experiences, like ethnic restaurants, grocery stores, or beauty services (Åslund & Skans, 2010). While these practices may strengthen economic ties within the ethnic community, they can also limit exposure to the wider labour market. Later, platform-mediated labour, predominated occupied by migrants, is offering flexible employment option for many; however, it often operates in legal grey areas, lacking clear protections around wages, job security, and social benefits (van Doorn et al., 2023). Moreover, discriminatory practices by native employers, like unequal pay, hiring overqualified migrants for low-level jobs, reluctance to promote or hire minorities, can further restrict upward mobility (Åslund & Skans, 2010; Becker, 1995; Jacobs et al., 2021). Such prejudice, whether overt or implicit, compounds initial disadvantages and makes it more difficult for migrants to transition into better-paying, more secure jobs outside their initial industrial niches.

Immigrants' individual characteristics also play a crucial role in shaping their initial position in the host-country labour market, influencing not only the types of jobs they can access but also the sectors in which they ultimately become concentrated. One important individual characteristic shaping labour market outcome is gender, and the differences in industrial niching and workplace segregation are well documented in the literature (Ellis et al., 2004; Tammaru, Strömberg, van Ham & Danzer, 2016). Gendered labour market patterns are shaped by a combination of structural and cultural factors. Stereotypes about what occupations are "appropriate" for men or women may differ in origin and destination countries and combined with broader norms of social recognition. For instance, the perception of caregiving, cleaning, and housekeeping as pre-

dominantly female roles can directly influence the distribution of migrants across industries and workplaces.

Furthermore, women, especially those with young children, tend to seek employment closer to home in order to balance paid work with household and caregiving duties (Strömberg et al. 2014). In contrast, mixed ethnic marriages tend to be more common among migrant women. Being married with natives widens immigrant's the host country social networks, this creates a favorable environment for improvement local language skills, absorbing written and unwritten rules of society, attainment of the local labour market knowledge (Dribe & Lundh, 2008; Meng & Meurs, 2009; Rahn et al., 2019). Interestingly, though, the study by Strömberg et al. (2014) found that male immigrants married to native Swedes were employed in less segregated workplaces compared with unmarried male immigrants, suggesting that intermarriage may provide access to broader social networks and more diverse employment opportunities. However, this pattern was not evident for immigrant women, indicating that the potential desegregating effect of intermarriage may be also gendered, possibly due to persistent occupational segregation, gendered social roles, or differences in labour market participation rates.

2.3. Tenure transitions and residential mobility among newly arrived immigrants

Upon arrival, migrants tend to settle as renters in lower-income neighbourhoods with high share of minorities for several reasons. Migration is often an ethnic network-driven process that connects people in their origin and destination countries through continuous information flows (Massey et al., 1993). These networks influence not only the decision to migrate but also the initial choice of residence in the host country. Established migrants are frequently overrepresented in lower-income neighbourhoods where housing is abundant and affordable, and the network-based immigration process tends to reproduce these residential patterns among newcomers (Zorlu & Mulder, 2008). Migration also brings varying degrees of adaptive stress, and settling in areas with a high concentration of co-ethnics can help alleviate this stress. Being surrounded by a familiar cultural and linguistic environment fosters a sense of belonging and security while providing various forms of practical and emotional support. Co-ethnic assistance can help with finding employment, navigating local institutions, or securing housing (Aigner, 2019; Boschman & van Ham, 2015). This can involve getting information about affordable rental options from friends and relatives or renting directly from a co-ethnic landlord. In this way, ethnic networks play a crucial role in shaping the early residential trajectories of migrants.

Migrants are also typically renters upon arrival, as renting requires far less initial capital than homeownership and allows for quicker entry into the housing market. Newcomers often arrive from lower-income countries, have limited knowledge on the origin country housing market, lack the financial resources,

stable employment history, and access to credit needed to purchase a home. Moreover, renting offers flexibility, enabling migrants to adjust their location as they gain familiarity with the housing market, improve their economic situation, or seek better employment opportunities. This combination of financial constraints, institutional barriers, and the need for mobility makes the rental sector the primary point of entry for most newly arrived migrants.

Family reunification, a common reason for migration, usually reinforces existing ethnic housing and neighbourhood patterns (Zorlu & Mulder, 2008). This occurs when newcomers join relatives or community members who are already settled, leading them to concentrate in neighbourhoods where established migrant communities reside. Such clustering is further shaped by structural and practical constraints. Limited financial resources restrict access to more desirable housing options, while incomplete information about the broader housing market narrows the range of possible choices. Discriminatory attitudes among landlords toward newly arrived migrants can further limit opportunities, often pushing newcomers toward areas with higher shares of co-ethnics or less competitive rental markets. This disadvantage beyond an immigrant's socioeconomic status, is evident in discriminatory practices and systemic bias, and seen both housing and labour markets.

Furthermore, uncertainty about the future, such as legal status, employment prospects, or long-term plans, leads to initial choices that prioritise affordability and familiarity over moving up the housing ladder (H. S. Andersen, 2016). Likewise, household and partnership status influence residential choices and expectations of settlement. In particular, having a partner from the native majority is strongly associated with immigrants' housing and neighbourhood mobility, as well as a higher likelihood of remaining in the host country permanently (Hannemann et al., 2018). In contrast, migrants with non-native partners may have different long-term plans, and their residence in the host country is more likely to be temporary.

Together, these factors significantly constrain migrants' initial neighbourhood and housing options, shaping the initial housing and neighbourhood choice. There are diverging perspectives on post-arrival tenure transitions and residential mobility, most notably reflected in three influential theoretical frameworks: the spatial assimilation model, the place stratification model, and the housing availability framework. Each of these offers a distinct explanation for how and why migrants' housing careers and neighbourhood locations evolve after arrival, emphasising different mechanisms and constraints.

The spatial assimilation model posits that, over time, immigrants become more similar to the native population in their distribution across neighbourhoods and housing tenure types, as a result of acculturation and upward socio-economic mobility (Logan & Alba, 1993; Massey & Denton, 1985; Wessel et al., 2017). As migrants improve their position in the labour market, increase their income, and gain knowledge about the housing market and the reputations of different urban areas, they are better equipped to enhance their residential situation. This process often entails moving from lower-income to higher-income neighbourhoods

(Vogiazides & Chihaya, 2020), which typically have a higher concentration of the native population (Zorlu & Mulder, 2008). However, studies in the Nordic context show that while migrants do acculturate and improve their socio-economic standing, leaving ethnic neighbourhoods and social housing tends to be a slow process (Abramsson et al., 2002; Andersson & Kährik, 2015). As a result, level of residential segregation and the homeownership gap between migrants and members of the native majority population remain persistently high.

The place stratification model offers another broad framework for explaining migrants' tenure transitions and neighbourhood mobility by highlighting extended disadvantage and immobility. This approach emphasizes that both actual and perceived structural constraints which is often rooted in discrimination, can outweigh immigrants' preferences for homeownership and living in more affluent neighbourhoods even when incomes rise (Bolt & van Kempen, 2010; Lersch, 2013). These structural constraints may act for different ethnic groups differently (Ioannides & Zabel, 2008; Pais et al., 2012; van Ham et al., 2018). Still, the key factor behind the extended disadvantage and immobility relates to complex and often subtle mechanisms of discrimination in the housing market that impede opportunities to overcome residential disadvantage with becoming a homeowner in high-income neighbourhood (Krysan & Crowder, 2017b; Verhaeghe & De Coninck, 2022). For example, in competitive rental markets, landlords may favour applicants from the native majority over migrants when selecting tenants. Structural constraints are also evident in access to mortgage finance: newly arrived migrants without a local credit history are often considered less creditworthy clients (H. S. Andersen, 2016). Labour market disadvantages, including discriminatory practices in recruitment and career progression, further restrict migrants' housing options. Concentration in lower-paying, less secure jobs limits their ability to accumulate savings for a home purchase. Moreover, young migrants often lack the intergenerational financial support from parents that many of their native peers can draw upon when entering the housing market. These combined disadvantages with many elements of discrimination significantly constrain migrants' opportunities to achieve homeownership and to move into higher-income neighbourhoods, thereby reinforcing and perpetuating existing patterns of residential inequality.

The housing availability model places greater emphasis on the contextual features of the local housing market and the nature of opportunities it offers. Highlighting how the tenure structure like share of homeownership, size of the public rental sector, and availability of other tenure forms and the spatial distribution of these opportunities shape migrants' housing transitions and residential mobility (South et al., 2011). This perspective argues that the likelihood of gaining access to a particular type of neighbourhood depends on the quantity, quality, and spatial distribution of housing opportunities generated by local housing markets. The availability of different housing sizes, types, and tenures across the city, including the existence and spatial distribution of social housing, where rents are subsidised, shapes the residential trajectories of migrants (E. K. Andersson et al., 2022; MacLennan & O'Sullivan, 2012; Skifter Andersen

et al., 2016; Wimark et al., 2020). The housing availability model emphasises how structural opportunities shape tenure outcomes. In this context, homeownership is considered an advantage for migrants and linked with positive outcomes, because it provides a pathway to long-term wealth accumulation and housing security, enabling households to better realise their preferences and needs regarding housing and neighbourhood (Constant et al., 2009; Skovgaard Nielsen et al., 2015; Vaalavuo et al., 2019). Whereas in rental housing, these preferences might not be fully met, as the range of options for choosing location, dwelling type, and tenure conditions tends to be more limited compared to ownership.

Skifter Andersen et al. (2016) explicitly examined how sorting into housing tenures is linked to sorting into residential neighbourhoods in Nordic capital cities, showing that the relative size and evenness of the social housing sector strongly influence residential mobility patterns. For example, in Helsinki, the large and spatially well-distributed social housing stock enables migrants to move into higher-income neighbourhoods without necessarily becoming homeowners. Wessel et al. (2017) studied moves into higher-income neighbourhoods in Nordic capitals and found that homeowners were generally more likely to make such moves in Copenhagen, Helsinki, and Stockholm, but not in Oslo. The difference was partly attributed to Oslo's more even distribution of owner-occupied housing across the city, including in lower-income neighbourhoods. This meant that migrants in Oslo had a higher chance of becoming homeowners while still residing in less affluent areas.

In conclusion, previous research indicates that achieving both homeownership and relocation to a higher-income neighbourhood is particularly challenging for migrants. To the best of my knowledge, no comprehensive study has systematically examined the relationship between immigrants' neighbourhood contexts and their housing mobility patterns. This thesis addresses this gap by exploring immigrants' residential integration in host societies through an analysis of the overlap between housing and neighbourhood mobility in the welfare-state contexts of Helsinki, Stockholm, and Oslo. Simultaneously becoming a homeowner and moving into a higher-income neighbourhood represents a significant financial burden, making it a demanding process that can slow or hinder the residential integration of migrants.

3. STUDY AREAS

This thesis focuses on three cities in the Nordic region of Europe. The Helsinki Metropolitan Area (HMA) is examined in Publication I and Publication II, while Publication III extends the analysis to Helsinki, Stockholm, and Oslo. These cities, with their differing housing systems, share similar welfare-state contexts. Over recent decades, all three countries and especially cities have experienced a significant rise in immigration, albeit from different main countries of origin. According to the OECD International Migration Outlook (OECD, 2024), the share of foreign-born population is 8.6% in Finland, 17.5% in Norway, 20.3% in Sweden. These figures reflect the countries' differing immigration histories (R. Andersson et al., 2010): Sweden has the longest tradition of immigration, beginning with post-war labour migration and later large refugee inflows (Dribe & Lundh, 2008); Norway's immigration history is more recent, starting with labour migration in the 1970s and expanding after the EU enlargement in 2004 (Friberg & Midtbøen, 2018); Finland, historically a country of emigration, only became a notable immigration destination in the 1990s and still has the lowest share of foreign-born residents among the three (Kauppinen & Vilkkama, 2016; Vaattovaara et al., 2010). Finland has received immigrants primarily from Russia, Estonia, Sweden, Iraq, and Somalia. Norway has attracted immigrants from Poland, Lithuania, Sweden, Somalia, and Germany. Sweden's largest immigrant groups originate from Syria, Iraq, Finland, Poland, and Iran.

3.1. The main features of the housing systems in Finland, Norway and Sweden

Understanding migrants' tenure transitions and residential mobility benefits from a comparative, multi-country perspective. In such studies, it is important to select cities that share many contextual similarities but differ along the main dimension of interest. Helsinki, Oslo, and Stockholm, the three Nordic capitals, provide a strong comparison: all are exemplars of comprehensive welfare states, yet their housing systems differ markedly in tenure composition, allocation mechanisms, and the spatial distribution of housing opportunities. These differences are not merely institutional features; they directly shape the accessibility, affordability, and quality of housing available to migrants, thereby influencing the degree and pace of their spatial integration. Table 1. summarises the main quantitative features of the housing systems in Helsinki, Oslo, and Stockholm, providing a comparative overview that frames the more detailed discussion that follows.

Table 1. Key features of the housing systems in Helsinki, Oslo, and Stockholm and their implications for migrants

Feature	Helsinki	Oslo	Stockholm
Dominant tenure	Large rental sector (>50% of households), with significant share in means-tested public rental (<i>ARA</i> housing)	Owner-occupation dominant (~80% of households)	Owner-occupation dominant (~80% of households)
Public rental share	~8%, means-tested allocation based on need, wealth, and income	~2%, targeted to the most vulnerable	~10%, allocated via central queue system (waiting time-based)
Private rental share	~50%	~17%	~10–15% (tight market, informal sublets common)
Cooperative housing share	Minor	Minor	Minor but locally important
Spatial distribution of public rental	Broadly dispersed across neighbourhoods, including mixed-income areas	Highly concentrated in small segments, minimal influence on spatial distribution	Concentrated in certain districts; access limited by long waiting times
Allocation rules	Means-tested, prioritising low-income households, including many migrants	Strongly targeted to those in greatest need	Queue system; priority by waiting time, not income
Affordability of public rental	Below-market rents; high quality and maintenance standards	Below-market rents but limited availability	Below-market rents but long waits; many migrants forced to seek private or informal rentals
Homeownership patterns	Concentrated in central and affluent districts	Widespread across all neighbourhoods, including lower-income areas	Concentrated in affluent areas
Implications for migrants	Easier initial access to affordable, good-quality housing; less concentrated in most deprived areas	High barrier to ownership without savings; minimal public rental safety net; market entry challenges	Restricted access to public rental; housing shortage pushes migrants to lower-income private rentals and informal market; higher risk of discrimination

Helsinki stands out among Nordic capitals for its expansive and spatially dispersed social housing system, which plays a central role in shaping migrants' initial settlement opportunities. In essence, Housing Finance and Development Centre of Finland (known as ARA) administered by the, a government agency under the Ministry of Environment and was responsible for subsidies, allocation, and policy implementation for social rental housing (ARA was closed in February 2025, and its operations were transferred to Centre of State-Subsidised Housing Construction) (Ministry of the Environment Finland, 2025). This state-subsidised housing sector is substantial: about 20% of households in the HMA live in government-subsidised public rental units (Torpan et al., 2022). This reflects both a strong historical tradition of public housing provision and ongoing political commitment to maintaining affordability. Crucially, these state-subsidised housing units are distributed across a wide range of neighbourhoods, allowing migrants and low-income households to access housing in diverse parts of the city rather than being confined to disadvantaged areas (Ronkainen & Eskelä, 2022). ARA housing offers distinct advantages: rents are set well below private-market levels, and allocation is strictly means-tested, based on assessed need, wealth, and income, prioritising lower-income groups, including many recent migrants (Ronkainen & Eskelä, 2022). This arrangement provides newcomers with safe, stable, and affordable housing during the critical early stages of settlement. At the same time, Helsinki's land-use policy actively promotes mixed-tenure neighbourhoods by requiring a balance of rental and owner-occupied housing in new developments, reducing the risk of tenure-based segregation (Ronkainen & Eskelä, 2022). This is possible as the city owns around 70% of its land area. In addition to public rental housing, the Hitas system provides a regulated form of affordable homeownership, which offers price- and quality-controlled apartments, which means apartments with affordable price, based on the actual cost of construction (*Hitas New Buildings*, 2022; 'Owner-Occupied Apartments', 2024). However, this applies to limited housing stock. For migrants, these structural features mean that affordable public rental housing and mixed-tenure neighbourhoods can help avoid spatial segregation. Nonetheless, persistent income disparities and unequal labour market access make the path to homeownership slow, reinforcing tenure gaps between migrants and the native population.

Oslo embodies a highly market-based housing system where homeownership is the dominant tenure. There is a generous welfare system but with a notably small public rental sector. Only around 4% of housing stock is publicly owned (Nordahl, 2020) and reserved primarily for the most vulnerable groups, such as refugees. Most Oslo residents (approximately 80%) are homeowners, and ownership is prevalent across both high- and low-income neighbourhoods, which reduces spatial disparity in tenure distribution (Statistics Norway, 2025). According to Statistics Norway (2025), private rentals account for roughly 18% of housing, often serving immigrant and minority households disproportionately. Oslo's rental market is lightly regulated, contributing to high costs and limited security of tenure for renters. Rental prices in Oslo are among the highest in Norway,

typically rising with proximity to the city centre and contributing to affordability challenges (Cavicchia, 2023). These structural features mean that migrants in Oslo may find it easier to access homeownership than public rental housing. This is a unique opportunity compared to other Nordic capitals. However, significant financial barriers remain. Rising house prices and the absence of a robust rental alternative hinder access to homeownership, especially in more affluent neighbourhoods, especially for new or low-income migrants. The city's spatial structure, where homeownership spans both affluent and less desirable areas, may thus facilitate residential segregation as migrant homeowners sort into neighbourhoods with more affordable house prices.

Stockholm is struggling with increasing housing shortage (Granath Hansson, 2020), despite having diverse housing stock that includes public (municipal) rental housing, cooperative tenant-ownership, and a competitive private market. This affordability pressure is due to several decades of tenure conversion and sell-offs of municipal stock to private landlords or cooperatives have tightened rental supply. Crucially, public rental housing in Stockholm is not like "social housing" in the Helsinki sense, rather this is municipal-provided rental housing and offering needs-tested welfare payments among which a subsidy for housing that is distributed to households (Sandberg, 2023). This makes immediate access to affordable housing difficult for newly arrived migrants, often pushing them toward the private rental market or subletting (Granath Hansson, 2020). Taken together, Stockholm's reduced municipal stock, and high-pressure private rental market create a challenging entry path for newcomers compared with Helsinki (Tunström et al., 2020). At the same time, the mixed system still offers upward mobility avenues (e.g., cooperative tenant-ownership), but these typically require time, information, and resources that newly arrived migrants lack at the outset.

To conclude, the housing systems of the three Nordic capitals differ markedly, providing migrants' different opportunity structures for initial settlement and long-term residential mobility (Englung & Flam, 2021; Tunström et al., 2020). Helsinki stands out for its extensive, spatially dispersed, and means-tested public rental sector, which offers many newcomers affordable housing across a range of neighbourhoods with different wealth levels. Oslo represents the opposite end of the spectrum, with a highly market-oriented system, minimal public rental provision, and widespread homeownership across a range of neighbourhoods with different wealth levels. Stockholm occupies an intermediate position, combining high levels of homeownership with municipal rentals, cooperative housing, and a competitive private market, but with access to public rentals determined by long queue times that disadvantage newly arrived migrants. These structural differences influence both sorting into different tenure types and neighbourhood types.

4. DATA AND METHODS

This thesis draws on Finnish registry data from 1999 to 2019, with Publication III also incorporating comparable data from Sweden and Norway (Table 2). The Nordic countries maintain extensive population registers, enabling longitudinal research that tracks individuals over time. This makes it possible to examine dynamic processes such as neighbourhood change, housing tenure transitions, and labour market mobility, and to analyse residential segregation in the context of Nordic welfare-state capital cities. The main study period for Publication I is 2004–2013, and for Publication II, 2004–2014, reflecting the availability of data. This timeframe is of particular interest as it includes the European Union’s eastern enlargement, when the accession of several post-Soviet states significantly increased migration flows from new to older member states. For Publication III, the study period is 2011–2017, determined by the availability of harmonised data across the three studied cities. The research population in all analyses consists of working-age immigrants (25–64 years in Publications I and II; 25–60 years in Publication III). Students, individuals aged 60 years or older at the beginning of the study period, and those who arrived in or left the city during any other year of the observation period were excluded from the analysis.

Table 2. Summary of analytical approach in three publications

Publication	Study period	Research population size	Analysis technique	Focus of the study
I	2004–2014 changes tracked over time	29 812	Generalised structural equation models	Within-labour-domain analysis of segregation: interplay between industrial niching and workplace segregation
II	2004–2014 changes tracked over time	59 626	Inverted Kaplan-Meier survival curves for event history analysis; discrete time logistic regression model; generalised structural equation models	Within-residence-domain analysis of segregation: interplay between tenure transitions and residential mobility
III	2011–2017 changes tracked over time	12 314	Multinomial regression model	Within-residence-domain analysis of segregation: different pathways of the interplay between tenure transitions and residential mobility in different housing market contexts

The research populations differed somewhat across the three publications. Publication I examines immigrants from Finland's neighbouring countries Sweden, Estonia, and Russia. These countries vary in both linguistic distance from Finnish and relative economic wealth. In Publications II and III, immigrants were grouped into broader categories based on either group size or the economic wealth of their countries of origin. In Publication II, the categorisation followed group size and included: immigrants from Estonia; Russia; the Middle East; Western countries; other Eastern European countries (excluding Estonia and Russia); Africa; and other non-Western countries. In Publication III, immigrants were classified according to the World Bank's income-level framework for their country of origin: (1) lower-income and lower-middle-income countries; (2) new EU member states from the 2004 and 2007 enlargement waves; and (3) higher-income countries not included in the first two categories.

The main study area for this thesis is the Helsinki Metropolitan Area (HMA), while Publication III also includes the Stockholm and Oslo MAs to enable cross-country comparison. In Publications II and III, spatial units for the Helsinki MA were based on neighbourhoods defined by postcode areas, each corresponding to the service area of a single post office. These postcode-based neighbourhoods provide a consistent and policy-relevant unit for analysing residential segregation. For the comparative analysis in Publication III, equivalent spatial units were used for the other two metropolitan areas: "small-area market statistics" (SAMS) zones in the Stockholm MA, and track neighbourhoods in the Oslo MAs. Both SAMS and track neighbourhoods are widely used in national statistics and urban research in their respective countries, offering a comparable level of spatial granularity to the postcode-based units in Helsinki. In Publication I, the spatial units were defined differently, focusing on workplaces rather than residential areas. Here, the spatial units referred to places of work, defined establishments or company branches located at specific street addresses, allowing the analysis to link workers to the exact physical location of their employers. This workplace-based spatial perspective provided a complementary view on segregation, allowing the analysis to capture patterns of segregation in places of work alongside those observed in places of residence. By linking individuals to specific employer locations, it was possible to assess whether residential segregation patterns were mirrored, reduced, or amplified in the labour market, thereby offering a more comprehensive understanding of immigrants' integration trajectories.

4.1. Study design

Publication I employs an analytical framework that explores the interplay between sorting into different industries (niching) and workplace establishment (segregation) by the share of immigrant workers. These economic dimensions were measured using a binary variable: the over- or under-representation of immigrants in industrial niche sectors, and workplace segregation, which indicates whether immigrant workers are employed in workplaces where they are over-represented

or not. In Publication I the longitudinal perspective was included in testing the differences in duration of stay in Finland.

In Publications II and III the analytical framework focuses on the interplay between tenure transitions and residential mobility, with particular attention to immigrants who initially settled as renters in lower-income neighbourhoods upon arrival. In Publication II, the analysis examined two key processes (blue arrow in Figure 2): (1) transitions from rental housing to homeownership, and (2) moves from a below-average-income neighbourhood to an above-average-income neighbourhood. Publication III extended this approach by modelling multiple combinations of these processes, using as a baseline the status of being a renter in a lower-income neighbourhood (Figure 2). This design made it possible to capture more nuanced trajectories of residential integration (black arrows in Figure 1), including cases where immigrants: (1) remained renters in a below-average-income neighbourhood; (2) transitioned from renting to homeownership without changing neighbourhood type; (3) moved from a below-average-income to an above-average-income neighbourhood without changing housing tenure; or (4) achieved both transitions, becoming homeowners while also relocating to an above-average-income neighbourhood.

	Renter	Homeowner
Lower-income neighbourhood	Renter in lower-income neighbourhood	Homeowner in lower-income neighbourhood
Higher-income neighbourhood	Renter in higher-income neighbourhood	Homeowner in higher-income neighbourhood

Figure 2: Model of outcomes for the residential mobility of immigrants settling as renters in lower-income neighbourhoods upon arrival (Black arrows in Publication III; Blue arrow in Publication II) Modified. Source: Publication III, Figure 2.

To begin, I provide a general overview of residential segregation and tenure segmentation using descriptive statistics. For this purpose, the location quotient (LQ) method was applied to classify neighbourhoods into binary categories, enabling the identification of areas where specific migrant groups are over- or under-represented relative to the citywide average. This approach produced a set of maps visualising the relative spatial concentration or dispersion of immigrants both at places of work (Publication I) and at places of residence. Such visualisations help reveal whether migrants are disproportionately concentrated in certain industries, workplaces, or residential areas, and how these patterns differ between employment and housing contexts. In Publications II and III, a similar

classification was applied to identify neighbourhoods, calculating the average individual disposable income of all residents each neighbourhood and with that classified neighbourhood affluence into binary category. Natives were not analysed as a separate group because the focus of these publications was on the early careers of immigrants after arriving in the host country. However, they were indirectly included through the calculation of neighbourhood-level affluence (Publication II and III), meaning higher-income neighbourhoods have also higher share of natives.

The analytical techniques employed across the publications are summarised in Table 2. Generalised Structural Equation Models (GSEM) were used to examine the overlap between industrial niching and workplace segregation (Publication I), as well as tenure transitions and residential mobility (Publication II). In Publication I and II, a set of relevant covariates was included, like socio-economical characteristics and integration-related variables (e.g. length of stay in HMA; family status, including partnership status and whether the partner was Finnish-born or immigrant).

The GSEM in Publication II was based on inverted Kaplan-Meier survival curves, applied within an event history analysis framework. The modelling focused exclusively on the first occurrence of entering homeownership or re-locating to a neighbourhood with above-average income, to assess variation across immigrant groups and the influence of individual-level characteristics. In Publication III, multinomial regression models were applied separately to register data from Helsinki, Oslo, and Stockholm, as pooling the datasets into a single structure was not feasible. The primary variable of interest was disposable household income, measured in percentiles, with additional controls for individual characteristics such as age, family status, and the proportion of native-born residents in the neighbourhood.

5. RESULTS

The empirical analyses in this dissertation examine how immigrants' positions in the labour market are connected to their tenure transitions and residential mobility, using evidence from the Nordic countries. Section 5.1 focusses on the overlap between immigrants' workplace locations and industrial niching in the Helsinki Metropolitan Area, considering that migrants arrive from different origin countries that are subject to different immigrant acceptance policies. Section 5.2 turns to residential segregation and housing segmentation in the Nordic welfare-state context, comparing Helsinki, Oslo, and Stockholm cities with strong egalitarian social models but markedly different housing regimes. Drawing on detailed longitudinal register data, all papers analyse how labour market positions, tenure transitions from renting to homeownership and moves between lower- and higher-income neighbourhoods occur and link with each other, seeking to find answers to the two main research questions of the dissertation:

1. **What are the labour market outcomes of migrants arriving from different origin country contexts?** This question examines two types of labour market outcomes, niching and segregation. Labour market outcomes shape the opportunities of migrants in their home search that is addresses in the second research question.
2. **How do tenure transitions and residential mobility patterns unfold for newly arrived migrants in different housing market contexts?** This question focuses on the pathways migrants take after their initial settlement as renters in low-income neighbourhoods, and how these pathways vary across the distinct housing market structures of the three Nordic capitals as a well as based on labour market outcomes.

5.1. Immigrants' labour market outcomes: links between workplace segregation and industrial niching

This section presents the results addressing first research question based on **Publication I**, which examined immigrants' labour market integration in the Helsinki Metropolitan Area through *industrial niching* (concentration of immigrants in particular industries) and *workplace segregation* (concentration of immigrants in workplace establishments). Analysing these two separate labour market outcomes together makes it possible to capture how occupational sorting and concentration in specific workplaces can reinforce each other, which potentially limiting opportunities for broader labour market integration and shaping immigrants' long-term career trajectories. The analysis focused on three neighbouring country immigrant groups: Swedes, Estonians, and Russians. These differ in cultural proximity to Finland, EU mobility rights, and migration policy constraints. Swedes and Estonians share strong cultural ties with Finland and benefit from free movement within the European Union, facilitating relatively

unrestricted access to the Finnish labour market. However, Sweden is economically more affluent than both Estonia and Finland, which may influence migration motivations and employment patterns. Russia, by contrast, is linguistically more distant and economically less affluent than the other three countries. Furthermore, immigrants from Russians face work permit requirements and other regulatory barriers, particularly for lower-skilled jobs, which shape their access to the Finnish labour market in distinct ways.

The findings reveal marked and systematic differences in both industrial niching and workplace segregation across the three immigrant groups, reflecting the combined influence of migration channels, labour demand, and skill profiles. Industrial niching is most pronounced among Estonian and Russian immigrants, whose employment structures are not only heavily concentrated but also strikingly similar in sectoral profile. A large share of both groups, 42% of Estonian and 37% of Russian migrants in Finland, are employed in the healthcare and social work sectors. This pattern shaped by persistent demand for labour in care-related occupations and by recruitment channels that actively target foreign workers for these roles. For Estonians, the construction sector constitutes another major niche, employing a significant proportion of male workers, and offering relatively accessible employment opportunities, even for those with limited Finnish language skills or lower formal qualifications.

Swedes, by contrast, present a more diversified distribution over sectors. While they are also represented in healthcare and social work, their employment is more strongly oriented towards education and public administration, which require higher language proficiency, credential recognition, and often more formal recruitment processes. These sectors are less dominated by immigrant labour overall and tend to offer more stable labour contracts and employment conditions. The differences in sectoral concentration thus reveal how proximity in culture, language, and institutional frameworks interacts with labour market segmentation: Estonians and Russians are over-represented in physically demanding or care-oriented occupations with high immigrant shares, whereas Swedes are more integrated into professionalised public-sector roles that more closely mirror the occupational structures of the native-born Finnish workforce.

Workplace segregation also varies substantially across the three groups as presented in figure 2 in Publication I, and these differences closely mirror the sectoral differences presented above. Estonians have the highest average share of immigrant colleagues, at 48%. This reflects their strong presence in construction, where workforces are often dominated by labour migrants. In such environments, workplaces and teams may consist almost entirely of co-ethnics or other immigrants, with limited day-to-day interaction with native-born Finns. This concentration can foster tight-knit co-ethnic networks that provide job access and mutual support but may also limit opportunities for acquiring local language skills, building broader professional ties, or transitioning into other sectors with higher share of native majority workers.

Russians display a broadly similar pattern, though their sectoral mix is more balanced between construction and the health and social care sectors, both of

which employ substantial numbers of immigrants. Construction sector is characterised with high labour demand, offers a relatively quick entry into the labour market, often requiring fewer formal qualifications, providing work for labour migrants often arrive from less wealthy countries than Finland. Health and social care sector are more diverse in its composition of migrants' origins as well employing native majority workers, especially at higher skill levels. As a result, Russian immigrants are also working in certain industrial niches, but some of these niches feature a wider variety of co-worker backgrounds than is typical in construction sector. Despite some differences, for both Estonians and Russians, these concentrations into certain niches emerge from the interplay of several reinforcing mechanisms. First, persistent demand in immigrant-intensive industries, particularly construction and care work, creates structural pull factors that channel new arrivals into these sectors. Second, recruitment through established co-ethnic and broader migrant networks reduces search costs for both employers and jobseekers. However, this also tends to reproduce existing patterns of occupational concentration. Third, in the Russian case, the constraints of non-EU migration policy, including work permit requirements and restrictions on entry for low-skilled occupations, limit the range of initial employment opportunities. This regulatory framework often channels new arrivals into sectors with the most immediate labour shortages and less strict entry criteria, making health and social care, cleaning services, and certain segments of construction the most accessible entry points.

Swedish immigrants present a distinctly different labour market profile from both Estonians and Russians. This reflects several factors: their position as EU citizens from a more affluent neighbouring country with historic ties with Finland, the absence of migration policy barriers to labour market entry, and the fact that Swedish is one of the official languages of Finland. While a share of Swedes is also employed in health and social care, their employment is more heavily concentrated in education, public administration, and professional or cultural sectors. These are fields that tend to have lower overall immigrant representation and more competitive entry requirements. These sectors are often characterised by higher skill thresholds, formal credential recognition, and recruitment processes that favour applicants with strong language proficiency and familiarity with Finnish workplace norms. As a result, Swedish immigrants are less likely to be employed in the manual or lower-skilled occupations that dominate the employment profiles of Estonians and Russians, and more likely to access jobs that provide regular interaction with Finnish-born colleagues and relatively diverse workplace environments in terms of socio-economic background.

This occupational positioning translates into markedly lower workplace segregation: on average, Swedes work in establishments where only about 24% of co-workers are immigrants, compared with nearly twice that share for Estonians. Their sectoral concentration in education and public administration, where the majority of employees are Finnish-born, means that co-ethnic clustering is rare, and day-to-day workplace interactions more frequently occur in majority-native environments. These patterns suggest that Swedes' labour market incorporation

is shaped less by structural constraints or policy barriers and more by the transferability of their qualifications, linguistic proximity, and cultural familiarity, which together facilitate access to mainstream, high-status segments of the Finnish labour market. At the same time, their relatively low representation in immigrant-intensive industries limits the extent to which they share workplace settings with other migrant groups, potentially reducing opportunities for inter-migrant network building compared to Estonians and Russians.

The relationship between industrial niching and workplace segregation was examined using a generalised structural equation model (GSEM), allowing us to estimate the extent to which concentration in particular industries is associated with workplace segregation. The analysis revealed a statistically significant and positive association between the two labour market outcomes across all three origin groups. In other words, immigrants who are clustered into specific sectors are also more likely to find themselves in workplaces where immigrants constitute a large share of the workforce, reinforcing both occupational and workplace-level segregation.

The magnitude of this overlap, however, varies notably between the three immigrant origin groups. Estonians display the strongest link between industrial and workplace segregation, consistent with their pronounced concentration in highly immigrant-intensive sectors such as construction and certain parts of health and social care. For Swedes and Russians, the overlap is weaker and remarkably similar in size, although for different reasons. For Swedes, lower industrial niching into immigrant-dense sectors limits workplace segregation. While for Russians, the greater diversity of co-worker origins in health and social care moderates the strength of the link despite their niche concentration. The GSEM results also shed light on how this relationship is shaped by key individual characteristics of migrants. Gender plays a clear role: the overlap between industrial and workplace segregation is stronger among women than men, reflecting the highly immigrant-dense nature of female-dominated sectors such as care work and cleaning services. Partnership status matters as well. Immigrants with a Finnish-born partner show a weaker overlap compared to singles or those with an immigrant partner. This suggests that intermarriage may be associated with access to more mixed occupational and workplace environments. Finally, the association between industrial niching and workplace segregation diminishes with rising skill levels. This likely reflects the fact that higher-skilled immigrants have greater access to professional or specialist occupations, often in sectors with lower immigrant shares, reducing the likelihood of simultaneous clustering in both industry and workplace.

Taken together, these findings indicate that industrial and workplace segregation are mutually reinforcing, but the strength of this relationship depends on a combination of structural factors. The sectoral composition of employment, country-of-origin differences, and individual attributes all interact to shape immigrants' labour market outcomes.

5.2. Immigrants' tenure transitions and residential mobility within different housing systems

This section presents the results addressing second research question based on **Publication II** and **Publication III**. It examines the residential pathways of immigrants from the spatial assimilation, place stratification, and housing availability frameworks. The focus is on how immigrants move through the housing market, both in terms of tenure transitions (from renting to homeownership) and residential mobility (moving from lower-income to higher-income neighbourhoods) and how these two processes interact within different institutional and market contexts. By analysing longitudinal register data, the studies capture the extent to which upward residential moves align with expectations of spatial assimilation, or whether they are constrained by structural barriers and segmented housing market conditions among the newly arrived migrants who initially settle as renters in lower-income neighbourhoods.

Publication II, set in the Helsinki Metropolitan Area, examines whether migrants' tenure transitions, from rental accommodation to homeownership, are accompanied by moves to higher-income neighbourhoods within the first ten years after arrival. Unlike Publication I, which focused on immigrants only from neighbouring countries, this study included migrants from all origins to Finland, providing a broader picture of early housing careers. The results reveal that the connection between housing and neighbourhood change is relatively weak: becoming a homeowner does not necessarily entail moving to a more affluent neighbourhood, and relocating to such a neighbourhood does not automatically coincide with acquiring owner-occupied housing. However, differences emerged between migrant origin groups. For example, Kaplan–Meier survival curves (Figure 3 and 4) presented in Figures 3 and 4 of Publication II show that immigrants from Western countries are the most likely to both achieve homeownership and move to higher-income neighbourhoods within their first decade in Finland. By contrast, Estonian, Middle Eastern, Eastern European, and African immigrants are least likely to transition into homeownership during this period, while Russian immigrants are the least likely to experience upward neighbourhood mobility. These patterns point that the pace and nature of spatial assimilation in Helsinki are shaped by the combination of factors. This includes access to capital, credit history, and labour market positioning.

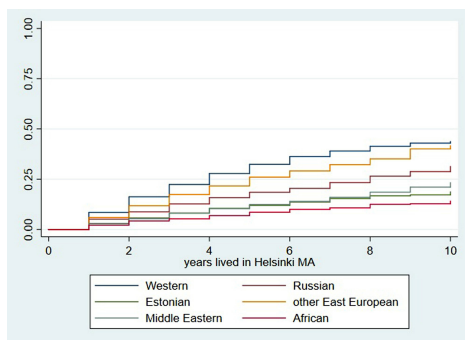


Figure 3. Reversed Kaplan Meier survival curves estimating housing tenure type change for immigrant groups based on country of origin (cumulative probability ratio on vertical axis). The differences in the average predicted probability of improving in tenure type are statistically significant based on log-rank test between all ethnic groups. Source: Publication II, Figure 2.

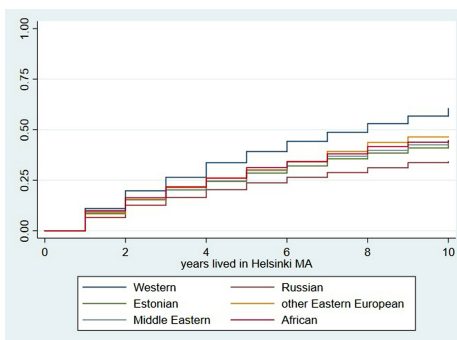


Figure 4. Reversed Kaplan Meier survival curves to estimate neighbourhood type change for immigrant groups (cumulative probability ratio on vertical axis). Source: Publication II, Figure 3.

The finding that the overall association between tenure status (renter or homeowner) and neighbourhood income weak level, stands out in light of the distinctive features of the Finnish housing system, which is deliberately structured to promote social mixing and limit the emergence of high levels of ethnic residential segregation. A central element of the Finnish housing system relates to the large public rental housing stock (ARA housing), which is allocated based on need rather than income and is intentionally distributed across neighbourhoods of varying socio-economic status. As a result, low-income and medium-income households, including many recent migrants, can access affordable, good-quality housing in neighbourhoods. In more market-driven systems this would be dominated by owner-occupied dwellings and higher-income residents. This policy framework combined with planning regulations that require new housing developments to include a mix of tenure types, reduces the residential concentration of disadvantage. This also enables migrants to enter higher-income neighbourhoods early in their housing career, even without changing tenure from being a renter to being a homeowner. This way migrants who remain renters benefit from location and service accessibility. Conversely, migrants who do become homeowners often do so within more affordable, lower-income neighbourhoods, where property prices are within reach, but socio-economic upgrading is limited, ending up living in more segregated neighbourhood. It should be noted, though, socio-economic differences between neighbourhoods are relatively moderate in Helsinki, owing to the widespread tenure mix across the city's neighbourhoods guided by policies that aim to keep segregation levels low.

Still, ethnic residential segregation has emerged in Helsinki despite extensive policy efforts to prevent it, driven by a combination of structural barriers and individual-level factors that shape migrants' housing and neighbourhood trajectories. On the structural side, the relatively high cost of owner-occupied housing in centrally located or affluent districts, together with stringent mortgage lending criteria. This creates significant barriers, particularly for migrants with shorter employment histories in Finland or limited accumulated savings. On the individual side, factors such as income level and stability, household composition, and life-course stage influence the timing and likelihood of tenure changes and moves to higher-income neighbourhoods. Over time, these structural constraints and individual circumstances interact, shaping migrants' opportunities for both tenure transitions and neighbourhood mobility.

Taken together, the Helsinki findings illustrate that the city's anti-segregation housing policies succeed in diversifying neighbourhoods' socio-economically, enabling migrants to gain early access to higher-income areas. The overlap between being a renter or homeowners and neighbourhood status (higher- or lower-income) remains weak, indicating that spatial assimilation in one dimension, such as neighbourhood quality, can be achieved independently of, and sometimes without, progress in another dimension, such as homeownership. In other words, Helsinki, renters do not necessarily reside in disadvantaged neighbourhoods, reflecting the integrative effect of the city's tenure mix and spatial distribution of public housing. Yet the results also suggest that, as the number of immigrants grows, it becomes increasingly challenging to fully prevent the emergence of ethnic residential segregation, even in cities with robust and elaborate anti-segregation policies and measures in place.

Publication III extended the analysis to a comparative setting by examining the tenure transitions and residential mobility of newly arrived migrants who initially settled as renters in lower-income neighbourhoods in Helsinki, Oslo, and Stockholm. The aim was to identify and compare spatial assimilation pathways as proposed by Massey and Denton (1988) by means of rich individual-level longitudinal data from different housing systems, and to assess how these pathways vary between immigrants from different origin regions. By jointly analysing tenure transitions (from renting to homeownership) and residential mobility (from lower- to higher-income neighbourhoods), the study revealed how structural features of housing systems interact with migrants' socio-economic resources to shape residential integration.

The descriptive patterns, presented in Figure 5 (Figure 3 of Publication III), point to clear differences between the three Nordic capital cities. In Helsinki, a significant proportion of immigrants remain renters in lower-income neighbourhoods over the first 10 years period, particularly those originating from lower-income or newer EU member states. This suggests that, despite Finland's large and spatially dispersed public rental housing sector, which should in principle facilitate access to a wide range of neighbourhoods. Still structural and income-related barriers constrain tenure mobility for some groups. In Oslo, approximately one-quarter of immigrants continue renting in lower-income neighbourhoods

even after six years of residence. However, the most common pathway for immigrants in Oslo is to become homeowners while remaining in lower-income neighbourhoods. This reflects Norway's relatively high overall homeownership rates and a housing market where entry into ownership does not necessarily imply movement to more affluent districts. Stockholm falls between Oslo and Helsinki in terms of the distribution of immigrants across tenure and neighbourhood types. Renting in lower-income neighbourhoods remains the most common situation, but a comparatively higher share of immigrants in Stockholm manage to both transition to homeownership and move to higher-income neighbourhoods within their first six years. Importantly, Stockholm also displays more systematic differences between origin groups: migrants from higher-income countries are far more likely to achieve both tenure and neighbourhood upgrading, whereas those from lower-income countries tend to remain in rental housing in lower-income neighbourhoods.

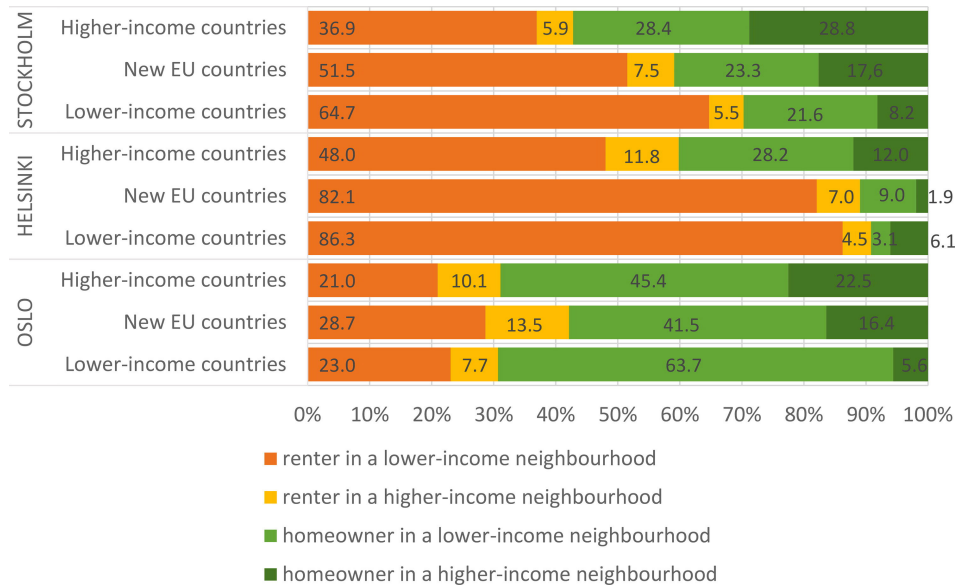


Figure 5. The distribution of the research population across housing tenure and neighbourhood affluence types at the end of the study period (2017). Source: Publication III, Figure 3.

Findings from the regression analysis, summarised in Figure 6 (Figure 4 of Publication III), further illuminate these patterns. Across all three cities, income is negatively associated with remaining a renter in a lower-income neighbourhood, meaning that higher earnings increase the likelihood of leaving one's initial settlement situation. This negative correlation holds across all origin groups, aligning with the spatial assimilation framework and contradicting the competing place stratification perspective, which would predict persistent barriers even with higher incomes. The strength of this relationship, however, varies by city. It is strongest in Stockholm, where income gains are most directly translated into both

tenure and neighbourhood upgrading. In Helsinki, higher incomes tend to lead to moves out of lower-income neighbourhoods while remaining in rental tenure, reflecting the structure of Finland’s tenure mix. In Oslo, higher incomes are most strongly associated with transitions into homeownership, but often without a corresponding move to higher-income neighbourhoods. This underscores the unique pathways shaped by Norway’s ownership-oriented housing system.

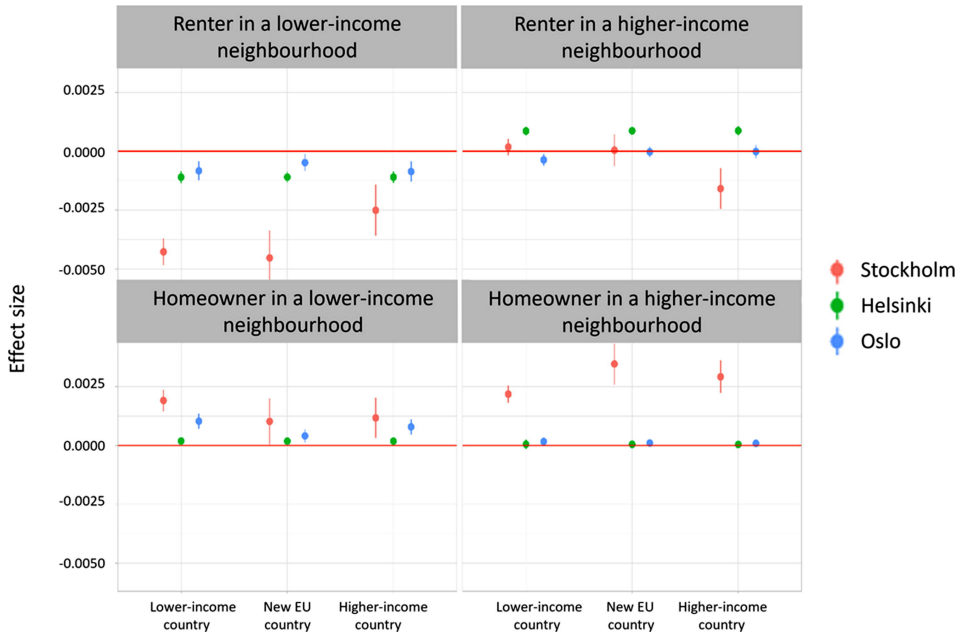


Figure 6. Average marginal effects of annual earnings on the probability of under-taking different residential mobility patterns in Oslo, Helsinki, and Stockholm capital regions (2011–2017). Calculations are based on multinomial logit models fitted on register data from Oslo, Helsinki, and Stockholm metropolitan areas (2011–2017).

Bringing the findings together, the comparative results from Publication III place the Helsinki-specific insights from Publication II into a broader Nordic perspective. While Helsinki’s mixed-tenure housing model provides migrants with relatively early access to a range of neighbourhood types, the weak coupling between tenure change and neighbourhood upgrading observed in Publication II is echoed in Oslo and Stockholm, although in different forms. Across all three cities, income rise facilitates residential mobility. Yet the extent to which this translates into both homeownership and higher-income neighbourhood residence is shaped by the structural setup of each housing system. These differences highlight that spatial assimilation is not a uniform process but one that unfolds along distinct pathways, even within broadly similar welfare-state contexts. It also highlights that policy measures can significantly shape the trajectories of migrant residential integration, influencing the extent and way migrants transition across both tenure types and neighbourhoods.

6. DISCUSSION

The findings of the current research provide new insights into how migrants' labour market positions, tenure transitions, and neighbourhood mobility unfold and interact across different housing systems based on the empirical evidence from the three Nordic countries. By analysing these processes in parallel, the dissertation reveals that integration in one sphere does not automatically lead to progress in another, such as achieving homeownership. For example, securing employment or moving to a higher-income neighbourhood. This challenges the linear assumptions embedded in classic frameworks like spatial assimilation, while highlighting the value of multi-domain perspectives that recognise the complex, mutually reinforcing, and sometimes decoupled nature of segregation processes.

Crucially, the results demonstrate that structural features of housing systems, such as the distribution of public rental housing or the accessibility of homeownership, play a decisive role in shaping the pathways available to different migrant groups. Beyond their analytical contribution, these results offer a basis for more informed policy debates by clarifying which structural features of housing systems most strongly condition migrants' residential and labour market trajectories. These findings align with those pointed out by Tammaru et al. (2023), providing affordable different tenure type housing across all city neighbourhoods or introducing income-restricted units in central, transit-oriented developments has offered promising solutions to counter spatial segregation. Such measures not only foster spatial integration but also support labour market access by reducing location-based barriers to employment. By disentangling tenure change from neighbourhood mobility and linking both to labour market outcomes, the study offers a more fine-grained and dynamic understanding of residential integration, grounded in rich longitudinal evidence from three Nordic capitals. Importantly, these insights reflect practices that other countries might learn from the Nordic experience, where housing policies and labour market dynamics are closely aligned to promote multidomain integration.

6.1. Rethinking Theoretical Approaches to Migrant Residential Integration

Spatial assimilation theory and place stratification theory are the most widely used theoretical frameworks for studying migrant residential outcomes. These frameworks offer valuable starting points because they each identify central mechanisms linking migrants' socio-economic position to their residential location. Spatial assimilation theory sees residential mobility as part of a gradual integration process (Massey & Denton, 1985). As migrants improve their socio-economic standing, through higher income, stable employment, and greater host-country language proficiency, they are expected to move out of immigrant-concentrated, lower-status neighbourhoods and into more affluent, mixed, or

native-majority areas. In this model, residential change is closely tied to socio-economic mobility. Upward movement in the labour market is assumed to precede and enable upward movement in the housing market. It is thus a sequential, resource-driven model, where assimilation in one domain (the labour market) carries on into another domain (residence). Place stratification theory, in contrast, emphasises the structural and institutional barriers that constrain migrants' residential mobility, even when they improve their socio-economic position (Pais et al., 2012). These barriers can include discrimination in the housing market, exclusionary zoning, credit constraints, and unequal distribution of amenities or services across urban space. Place stratification theory therefore challenges the idea that integration is an automatic outcome of socio-economic advancement, highlighting instead how housing and neighbourhood outcomes are shaped by power relations, historical inequalities, and policies that reproduce segregation.

Both frameworks remain highly influential because they capture two essential sides of the integration process: the agency of migrants in pursuing better housing opportunities, and the structural constraints that can hinder this pursuit. Yet, they fall short in several ways when it comes to explaining the nuances revealed in this dissertation. Spatial assimilation theory underplays the significance of different welfare state arrangements. For example, the Nordic model's capacity to reduce general social inequalities through taxation, subsidies, and benefits, and to reduce spatial inequalities through allocation arrangements such as extra funding to schools in poorer districts and targeted area-based programmes. It also neglects the contingent relationship between homeownership and neighbourhood quality. This is a key empirical insight of this dissertation which shows that gains in one dimension of housing integration do not necessarily coincide with gains in the other.

To capture these dynamics more effectively, this dissertation draws on and extends the vicious circle of segregation approach by (van Ham & Tammaru, 2016), which is particularly promising because it explicitly links different life domains and explains how inequalities in one domain are carried over to and reinforced in another. For example, disadvantages in the labour market, such as concentration in low-paid, immigrant-intensive industries, can limit housing choices and, in turn, reinforce residential segregation (H. S. Andersen, 2016). This perspective is valuable not only for understanding how segregation is reproduced across domains, but also for highlighting that within each domain there are domain-specific processes that contribute to inequality. However, the vicious circle of segregation approach pays less attention to within-domain dynamics. This is where the main conceptual novelty of the dissertation lies. Rather than treating residential outcomes as a single process, it explicitly links two inter-related but distinct processes, changes in housing tenure and residential mobility between different neighbourhood types, to gain a clearer understanding of residential segregation and integration. By disentangling these processes, the study can capture situations where migrants experience neighbourhood upgrading without changing tenure or achieve homeownership without moving to a higher-income area.

This sharper, domain-specific focus also incorporates insights from the housing availability model (South et al., 2011), which emphasises the structural conditions of the housing market, such as tenure mix, the scale and spatial distribution of public housing provision, and affordability, that shape migrants' opportunities for both tenure change and neighbourhood upgrading. By analytically separating these processes and embedding them within the structural characteristics of the housing market, it becomes possible to uncover how household residential choices are not made in a vacuum but are conditioned by wider institutional arrangements and policy contexts (Abramsson et al., 2002; R. Andersson & Kährlik, 2015). The comparative approach enabled to measure differences created by varying housing policy contexts. These include the design of social housing allocation systems, mortgage market regulations, rent control regimes, and urban planning frameworks, all of which influence the availability, accessibility, and desirability of different tenure and neighbourhood options. Situating migrant residential mobility within this structural lens allows for a richer understanding of how individual and household trajectories interact with the constraints and opportunities embedded in the housing system, and why similar income or employment gains may translate into very different housing outcomes across different national and city contexts. This difference in political and academic discourse is discussed in White & Nandedkar (2021), who argue that while housing is recognised as a major global issue, political narratives often simplify it, focusing on land supply or planning, whereas academic research highlights its structural complexity. Therefore, the societal relevance of this study lies in demonstrating how contextual differences channel migrants' integration pathways, providing evidence to guide targeted, place-based policy design and resource allocation.

6.2. Data and methods: New Insights and Limitations

A central strength of this dissertation lies in its use of a whole-population approach, in which the analysis covers the complete resident population of the study areas rather than relying on survey samples. This comprehensive coverage eliminates sampling bias and ensures that even smaller migrant groups, which are often underrepresented in traditional datasets, are adequately captured. The data are individual-level and longitudinal, making it possible to trace migrants' life-course trajectories in detail. This design allows to follow the same individuals over time, detecting how their labour market positions, housing choices, and residential mobility across neighbourhoods evolve from the first year of arrival, and how these domains intersect and influence one another. The longitudinal linkages, spanning a full 10 years after arrival, makes it thus possible to move beyond static snapshots and examine the sequencing and timing of events. For example, whether upward labour market mobility precedes neighbourhood upgrading, or whether a change in housing tenure occurs before or after a move to a higher-income neighbourhood. By connecting individual-level records on

employment, housing tenure, and neighbourhood socio-economic composition, the analysis can capture both the multi-domain interdependencies between labour market and housing outcomes, and the within-domain processes. Like the distinction between tenure transitions and residential mobility, that together shape migrant residential integration.

The ability to conduct such an in-depth, interlinked analysis rests on the high-quality data infrastructure available in the Nordic countries, which combines administrative registers from multiple sectors, population registers, employment registers, housing transaction databases, into harmonised datasets. The development and maintenance of such infrastructures are essential for advancing the understanding of complex processes like immigrant residential integration. Without such data, it would be nearly impossible to identify the nuanced, often gradual ways in which structural conditions, individual resources, and life-course events interact to produce divergent residential outcomes. Ultimately, such whole-population, longitudinal, and multi-domain studies can move provide explanations that are both empirically robust and directly relevant for policy.

That said, it is important to acknowledge the methodological limitations inherent in the research conducted within this thesis. First, although the register microdata provides highly precise longitudinal information on residential neighbourhoods and workplace contexts, many of the factors influencing residential mobility and labour market decisions could not be examined. Key underlying motivations, like individual preferences, aspirations, or experiences of discrimination, remain invisible in register data and therefore outside the scope of the analysis, even though they would greatly enrich the interpretation of decision-making processes. Second, while immigrant social networks are widely recognised as important mechanisms shaping residential and workplace patterns, register data are inherently limited in detecting these informal connections and the role they play in reinforcing or breaking segregation patterns. Third, the analyses did not directly include native-born residents. Neighbourhood context was instead operationalised through mean household income, with higher-income areas implicitly assumed to have greater native presence. While these two measures are strongly correlated, the absence of a direct measure of ethnic composition may obscure some aspects of segregation dynamics. Fourth, although the use of rich registry data from Finland, Sweden, and Norway offers strong comparative potential, certain relevant individual background variables, most notably educational attainment, were excluded due to poor coverage or inconsistent quality in the registers, particularly for newly arrived migrants. Fifth, despite aiming for full population coverage, administrative register data do not include undocumented migrants, a group receiving increasing attention in migration research and public debate in many immigrant-receiving societies, including the Nordic countries. The exclusion of this group limits the scope of the findings, especially in understanding the experiences of those outside the formal housing and labour markets.

6.3. Labour Market Outcomes of Migrants from Different Country-of-Origin Contexts Differ Markedly

By addressing the first research question, the analysis revealed marked and systematic differences in the labour market integration of migrants, depending on their country-of-origin context, and demonstrated that industrial niching and workplace segregation are closely intertwined in complex and varied ways. A key conceptual novelty of this dissertation lies in its joint, within-labour-domain analysis of industrial niching and workplace segregation, two dimensions that are typically examined separately. By integrating these perspectives, the study design makes it possible to clarify how concentration in specific industries is linked to employment in establishments with high shares of immigrant co-workers, and how the strength and composition of this relationship vary systematically according to origin-country wealth, cultural proximity, and immigration policy regime. This integrated approach offers a richer understanding of how structural opportunities and constraints interact with migrants' backgrounds to shape both their early and longer-term labour market trajectories.

This study further demonstrates that patterns of industrial niching and workplace segregation in the labour market hinge strongly on migrants' origin-country background. Particularly on factors such as linguistic and cultural proximity to the host country, origin-country wealth, and whether migration occurs under free-movement arrangements or through more restrictive immigration channels. The findings reveal that migrants from neighbouring countries with high cultural and linguistic proximity to Finland, such as Sweden and Estonia, nonetheless occupy markedly different positions in the Finnish labour market. Swedes, arriving from a high-income EU member state, are more often employed in sectors such as education and public administration, where overall immigrant representation is low. These sectors typically offer stable, often public-sector employment and result in relatively low workplace segregation, as immigrant co-workers form only a small minority. By contrast, Estonians, despite sharing the same EU free-movement rights and similar cultural proximity, are far more concentrated in immigrant-intensive sectors such as construction and health and social care. These sectors are characterised by persistently high labour demand and relatively low formal entry barriers, attracting many newcomers and producing workplaces where the share of immigrant co-workers is high.

Hence, arriving from a lower-income country appears to matter more for labour market outcomes than cultural or linguistic proximity, as the trajectories of Estonians resemble those of Russians more closely than those of Swedes. Like Estonians, Russians are strongly represented in immigrant-intensive sectors such as construction. This sector is among the most niched and segregated in the labour market, often dominated by migrants from lower-income countries. However, because Russians face higher migration barriers than Estonians, their sectoral profile is somewhat more diversified, with a larger share employed in fields such as health and social care. Employment in this sector provides greater diversity among colleagues and more frequent interaction with native-born Finns.

Nevertheless, Russia's position outside the EU subjects its nationals to migration policies that channel new arrivals into sectors with immediate labour shortages and lower formal entry requirements. This structural sorting mechanism, combined with reliance on co-ethnic and broader migrant networks, reinforces the concentration of migrants from lower-income countries in specific industries and sustains high levels of workplace segregation. This is even in cases, such as with Estonians in Finland, where cultural and linguistic distance is minimal.

The findings confirm that the overlap between industrial niching and workplace segregation is statistically significant. This means that migrants concentrated in certain industries are also more likely to work in establishments with high shares of immigrant. This overlap is strongest among Estonians, weaker (and similar in magnitude) for Swedes and Russians. Taken together, these results suggest that country-of-origin context conditions initial sectoral entry, which in turn shapes workplace-level exposure to co-ethnics and other groups. They also demonstrate that policies governing labour migration have a direct impact on migrants' integration pathways. Selective labour migration policies tend to channel newcomers into specific sectors, fostering industrial niching and workplace segregation, which in turn shape the range of housing market options available to them.

6.4. Tenure Transitions and Residential Mobility is Strongly Shaped by Housing System Differences

Migrants' pathways of residential integration are indeed shaped by their labour market positions, but they are more nuanced. This is because of the structural characteristics of the housing system in which they settle, as well as on migrants' individual and household characteristics, play a significant role. This means that there is scope for housing policy to play a direct role in supporting migrant integration in host countries. The present study contributes to policy design by highlighting not only cross-domain linkages between labour and housing markets but also the importance of within-housing-domain processes. Specifically bringing up the distinction between housing tenure transitions and residential mobility across neighbourhood types.

In Helsinki, the overlap between tenure change (from renting to homeownership) and neighbourhood upgrading (moving from a lower-income to a higher-income neighbourhood) is weak. Migrants can, and often do, achieve one without the other. For example, renting in a higher-income area due to the even spatial distribution of public rental housing (ARA housing) across the city, or purchasing a home in a lower-income neighbourhood due to affordability constraints. Helsinki's housing system which is characterised by a substantial and well-distributed public rental sector, reduces residential segregation and provides migrants with early access to mixed-income neighbourhoods. However, it does not remove barriers to homeownership. These barriers stem from high housing costs in centrally located and affluent areas, strict mortgage lending criteria, and

persistent income disparities, which particularly constrain migrants from lower-income origins. Homeownership is linked with positive outcomes, because it is a key pathway to long-term wealth accumulation and housing security (Constant et al., 2009; Skovgaard Nielsen et al., 2015; Vaalavuo et al., 2019). It often signals a strong commitment to permanent settlement in the host country. In contrast, renting offers flexibility, which may be preferable for migrants who are uncertain about their future plans. Yet, because homeownership remains unevenly accessible. It reinforces socio-economic inequalities and contributes to persistent gaps in residential patterns between immigrants and the native majority.

The comparative analysis of Helsinki, Stockholm, and Oslo further highlights how different housing market systems produce distinct residential trajectories. In contrast to Helsinki, where renting is widespread and public rental provision is extensive, Oslo's housing market is dominated by homeownership and has very limited public rental housing, being thus most similar to Estonia. As a result, migrants in Oslo more frequently become homeowners, yet often remain in lower-income neighbourhoods where housing is more affordable. This suggests that homeownership in Oslo can come at the cost of greater residential segregation. Nevertheless, owning a home enables migrants in Oslo to begin accumulating long-term wealth. This is an opportunity which is less available to migrants in Helsinki, who may access more affluent neighbourhoods early on but remain renters. It should also be noted that this study examined only the first ten years after arrival, and over a longer period migrant homeowner in Oslo may also move into less segregated neighbourhoods. Stockholm falls between these two housing market contexts. There migrants are comparatively more likely to achieve both homeownership and neighbourhood upgrading, often in parallel with improvements in their labour market position. This suggests that combinations of different policy approaches may yield particularly promising outcomes.

Across all three cities, income emerges as a key determinant of residential integration. The rise of earnings with time lived in the host country increases the likelihood of exiting rental housing in lower-income neighbourhoods. However, the strength and nature of this relationship vary by housing system, consistent with the housing availability model. In other words, the structural configuration of tenure options, affordability, and public housing provision mediates how income translates into residential outcomes. Taken together, these findings provide new empirical evidence that tenure transitions and residential mobility are related, but that their relationship is contingent on the broader institutional and market context. Policies matter, but the findings also show that Nordic welfare housing policies, while effective in reducing extreme spatial segregation, don't eliminate systematic differences between migrant groups or fully align tenure and neighbourhood change trajectories.

6.5. Directions of Future Research

The findings of this dissertation, together with the methodological limitations discussed earlier, point to several promising avenues for future research that could deepen and broaden the understanding of migrant residential integration in Nordic and other contexts.

Firstly, future research could extend the longitudinal analysis of residential mobility beyond the ten-year window used in this study. While the present research tracked migrants for their first decade after arrival, a longer temporal horizon would allow for the examination of more enduring mobility trajectories in both housing and labour markets. This would make it possible to assess whether patterns of industrial niching, workplace segregation, and residential integration converge or diverge over time, and to evaluate the durability of early housing and employment outcomes. For instance, it would be important to know whether migrant homeowners living in segregated neighbourhoods gradually disperse to more integrated areas, or whether such initial settlement patterns persist. Extending the time frame would also enable analysis of how key life-course events, such as family formation, divorce, or career change, interact with housing market structures. This interaction influences both tenure transitions and neighbourhood mobility, as well as the role of intergenerational change. Linking residential and workplace geographies across the life course would be particularly valuable for understanding the cumulative effects of segregation across domains, including how workplace concentration shapes later housing opportunities, and how residential location, in turn, influences labour market trajectories.

Secondly, mixed-method approaches would allow to better uncover decision-making processes. This dissertation relied on high-quality register data, which is well-suited to detecting trajectories and linkages between them, but cannot reveal the subjective motivations, constraints, and preferences that shape individual trajectories. Future research should incorporate qualitative methods such as in-depth interviews, focus groups, or ethnographic observation to investigate why migrants choose particular assimilation pathways, move to wealthier areas, become homeowners, or opt to remain renters. Such approaches could illuminate the role of household aspirations, risk perceptions, and time horizons, as well as experiences of discrimination in both the housing and labour markets. Combining register-based quantitative analyses with qualitative narratives would allow for richer, more nuanced explanations of observed patterns and the mechanisms behind them.

Thirdly, multi-domain segregation framework could be expanded further. This dissertation has advanced the understanding of migrant integration by disentangling within-domain processes, specifically, tenure transitions and neighbourhood mobility and in the light of prior literature exploring associations with labour market outcomes. Future research could further expand this multi-domain segregation framework even more thoroughly and by incorporating additional life domains such as education, health, or political participation. With the growing availability of fine-grained spatial and individual-level data, researchers could

examine how inequalities are produced and reproduced through interlinked pathways across these domains. For example, new studies could track how children's educational trajectories are shaped by parental residential patterns, or how health disparities emerge from combined housing and employment disadvantage. By broadening the scope beyond housing and labour markets, such research would help build a more comprehensive understanding of the structural and institutional processes shaping migrant integration.

CONCLUSIONS

The findings of this dissertation provide new conceptual, empirical, and comparative insights into the processes shaping migrants' labour market and residential integration based on the evidence from the Nordic countries, providing evidence to guide targeted, place-based policy design and resource allocation. The study reveals that integration is not a single, linear process, but rather a set of interconnected pathways by jointly examining industrial niching and workplace segregation and also housing tenure transitions and residential mobility across neighbourhoods. Migrants' residential integration is linked to their labour market outcomes, yet this relationship is mediated by the structural characteristics of housing systems, by institutional constraints such as migration policy regimes, and by individual and household-level resources and preferences.

The analysis shows that country-of-origin context, that is capturing differences in cultural proximity, relative wealth levels between countries of origin and destination, and the degree of migration policy constraints, plays a crucial role in shaping both labour and housing markets outcomes. Migrants from lower-income countries, even when culturally and linguistically close to the host society, are more likely to enter highly niched and segregated labour market segments than migrants from high-income origins. These patterns are reinforced by selective labour migration policies, which channel newcomers into sectors with immediate shortages and lower entry requirements. Such structural sorting not only influences workplace segregation but also indirectly shapes migrants' residential mobility options.

When it comes to residential integration, the dissertation makes a conceptual contribution by disentangling two processes that are commonly treated separately: housing tenure change and residential mobility across neighbourhoods. This separation reveals that migrants can, and often do, experience upward movement in one process without corresponding change in the other. For example, renting in a high-income neighbourhood or purchasing a home in a lower-income area. Comparative analysis across Helsinki, Oslo, and Stockholm underscores how the linkages between the two processes are strongly conditioned by housing system structures. In Helsinki, a well-distributed public rental sector facilitates early access to mixed-income neighbourhoods, reducing residential segregation, but barriers to homeownership remain. In Oslo, high rates of migrant homeownership promote wealth accumulation, but affordable housing is often located in lower-income, more segregated areas. Stockholm occupies an intermediate position, with migrants more likely to achieve both homeownership and neighbourhood upgrading.

Methodologically, the dissertation benefits from a whole-population approach, linking individual-level longitudinal data on employment, housing, and neighbourhood context. This design enables a nuanced analysis of between-domain and within-domain processes over the first decade of settlement. The comparative framework, covering three Nordic capitals, demonstrates the value of cross-

national analysis for identifying how policy regimes and structural conditions shape integration pathways. At the same time, the research acknowledges key limitations. The register-based approach cannot capture migrants' subjective preferences, experiences of discrimination, or informal social networks, all of which are central to understanding decision-making. Nor does it account for undocumented migrants, whose integration challenges remain largely invisible in official statistics. These limitations point towards fruitful directions for future research, including the integration of qualitative methods, the extension of longitudinal analysis beyond ten years, and the study of intergenerational trajectories.

Taken together, the findings of this dissertation underscore that migrant residential integration is shaped by a combination of individual resources, structural opportunities, and institutional constraints, unfolding across interconnected life domains. Integration outcomes cannot be fully understood without considering how processes in the labour market and the housing system interact over time, and how these interactions are mediated by both policy frameworks and market structures. By developing a more fine-grained, domain-specific approach and applying it in a comparative Nordic perspective, this dissertation advances both the theoretical understanding and the empirical evidence base needed to design policies that balance economic inclusion, residential integration, and long-term social cohesion.

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SUMMARY IN ESTONIAN

Sisserändajate eluasemeomandi vahetuse ja elukohamobiilsuse erinevused kolme Põhjamaa heaoluriigi näitel

Rahvusvaheline ränne arenenud riikidesse on rekordiliselt kõrge ning kasvav tööjõuränne ja märkimisväärne pagulaste sissevool kujundab demograafilist ja majanduslikku maastikku. Kuigi sisserändajad aitavad leevendada vananeva elanikkonna survet ning tööjõu ja oskuste puudust kogu Euroopas, kaasneb sellega ka väljakutseid vastuvõtvas riigis. Üheks keskseks probleemiks on sisserändajate majutamine niigi keerulistes eluasemeturu tingimustes. Immigrantide majutamine vastuvõturiigis mängib otsustavat rolli nende võimalustes integreeruda uude ühiskonna. Piiratud ligipääs taskukohasele ja kvaliteetsele eluasemele põhjustab sageli nende koondumist teatud linnaosadesse, mis omakorda tekitab ruumilist eraldumist ehk segregatsiooni. Varasemad uurimistööd on keskendunud eraldi eluaseme mobiilsusele ja sisserändajate jagunemisele erinevatesse eluasemetüüpidesse. Käesolev doktoritöö liidab need kaks protsessi kokku ning uurib, kuidas immigrantide eluasemeomandi vahetus ja elukohamobiilsus kujundavad elukoha segregatsiooni ja integratsiooni mustreid Euroopa linnades.

Doktoritöö üldine eesmärk on pakkuda uut teavet eluasemeomandi vahetuse ja elukohamobiilsuse vahelistest seostest sisserändajate seas, kes vahetult pärast saabumist uude riiki asuvad elama üürnikena madala sissetulekuga naabruskonda. Eluasemeomandi vahetuse (ing. k. *tenure transition*) all peetakse silmas omandiõiguse staatuse muutust üürnikust koduomanikuks ning seda muutust kujundavaid sotsiaalmajanduslikke ja institutsionaalseid tegureid. Elukohamobiilsuse (ing. k. *residential mobility*) all mõeldakse üksikisikute või leibkondade füüsilist kolimist erineva jõukustasemega linnaosade vahel. Seda protsessi mõjutavad nii isiklikud püüdlused kui ka eluaseme- ja tööturu struktuursed piirangud. Selle töö peamine akadeemiline panus seisneb võimaluses pikaajalisi registriandmeid kasutades selgitada seoseid sisserändajate eluasemeomandi tüübi valikute ja elukoha piirkondade vahel ning teha kindlaks, kuidas need protsessid on seotud immigrantide positsiooniga tööturul ning teenitava sissetulekuga. Empiiriline osa tööst põhineb võrdleval uuringul äsja saabunud sisserändajate seas Helsinki suurlinnapiirkonnas (Soome), Stockholmis (Rootsi) ja Oslos (Norra), mis käsitleb kahte uurimisküsimust:

1. **Millised on erinevatest päritoluriikidest sisserändajate tööturutulemused?** See küsimus käsitleb kahte omavahel seotud integratsiooni dimensiooni: majandusharu nišši ja töö füüsilise asukoha segregatsiooni. Samuti uuritakse, kuidas need tulemused mõjutavad sisserändajate võimalusi eluasemeturul, mis on teise uurimisküsimuse fookuses.

2. **Millised mustrid kujunevad äsja saabunud sisserändajatel eluasememomendi vahetuses ja elukoha mobiilsuses erinevates eluasemeturu kontekstides?** See küsimus analüüsib, millised valikuid teevad sisserändajad, kes alustavad üürnike madala sissetulekuga naabruskondades järgmisena, ning kuidas need valikud varieeruvad kolme Põhjamaa pealinna erinevate eluasemeturu struktuuride lõikes ja seoses tulijate töötutulemustega.

Uuringu tulemused süvendavad arusaama sisserändajate elukoha-, eluaseme- ja tööturu sorteerimismehhanismidest ning näitavad, kuidas need kujundavad integratsiooni teekonda. Käimasolevates eluasemepoliitika aruteludes pakub töö värskeid teadmisi võimalustest, kuidas vähendada eluasemega seotud ebavõrdsust ja elukohapõhist segregatsiooni sisserände ühiskondades.

Minu doktoritöö koosneb kolmest eelretsenseeritud teadusajakirjades avaldatud empiirilise artiklist ning on osa rahvusvahelisest võrdlevast uuringust. Analüüside aluseks olid Soome rahvastikuregistri pikaajalised ja detailsed indiviidi tasandi andmestikud (artiklid I ja II), mis võimaldasid jälgida inimeste eluasemega seotud liikumisi ajas ja ruumis. Kolmandas artiklis kasutati lisaks ka võrreldavaid registriandmeid Rootsist ja Norrast. Riikidevaheline võrdlev perspektiiv võimaldas hinnata, kuidas poliitilised raamistikud ja institutsionaalsed korraldused võivad sisserändajate integratsiooni kas soodustada või takistada.

Esiteks näitasid analüüsid, et päritoluriigi kontekst, sealhulgas kultuuriline lähedus, päritolu- ja sihtriikide suhtelise jõukuse tase ning rändepoliitikate piirangute ulatus mängib olulist rolli sisserändajate tööturu- ja eluasemetulemuste kujundamisel. Madalama sissetulekuga riikidest pärit sisserändajad, isegi kui nad on vastuvõtvale ühiskonnale kultuuriliselt ja keeleliselt lähedased, jõuavad tõenäolisemalt kindlatesse, segregeeritud, nišši harudesse kui kõrgema sissetulekuga riikidest pärit migrandid. Neid mustreid süvendab selektiivne tööjõu rändepoliitika, mis suunab uustulnukaid sektoritesse, kus on tööjõupuudus ja kus nõuded sisenemisel on madalamad. Selline struktuurne sorteerimine süvendab mitte üksnes töökoha segregatsiooni, vaid kujundab kaudsalt ka migrantide elukohamobiilsuse võimalusi.

Doktoritöö teine uurimisküsimus suunab tähelepanu eluasemeintegratsioonile, analüüsides kahte protsessi, mida tavaliselt käsitletakse eraldi: eluasememomendi staatuse muutust ja elukohamobiilsust naabruskondade vahel. Mõlemaid muutusi korraga vaadeldes selgus, et sisserändajad võivad kogeda edasiminekut ühes dimensioonis ilma, et teises toimuks muutust. Näiteks võis sisserändaja mõne aja möödudes hakata eluaset üürima kõrgema sissetulekuga naabruskonnas või vastupidi osta endale kodu madalama sissetulekuga naabruskonnas.

Võrdlev uuring Helsingis, Oslos ja Stockholmis näitas, et eluasemeturu struktuurid kujundavad tugevalt nende kahe protsessi vahelisi seoseid. Helsingis on sotsiaalüüripinnad hajutatud eri linnaosadesse, mis vähendab ruumilist segregatsiooni, kuid ei soodusta koduomanikuks saamist. Oslos on eluasemeturg pigem omandi suunas kaldu, mis suurendab sisserändajate võimalusi koduomanikuks saada ja seeläbi ka rikkust koguda, kuid taskukohased eluasemed asuvad sageli madalama sissetulekuga ja segregeeritumates piirkondades. Stockholm jääb

vahepealsele positsioonile, kus sisse­rändajatel on suurem tõenäosus omandada nii kodu kui ka parandada oma naabruskonda.

Käesolev uurimistöö sai teoks tänu kogu populatsiooni hõlmavale lähenemisele, mis võimaldas siduda pikaajased andmed tööhõive, eluaseme ja naabruskonna konteksti kohta. Selline andmestik lõi eeldused nüansirohkete analüüside läbiviimiseks nii erinevate eluvaldkondade sees kui ka nende vahel sisse­rändajate esimese kümne aasta jooksul pärast saabumist. Võrdlev uuring kolme Põhjamaa pealinna näitel tõi esile, kuidas erinevad eluasemepoliitika suunad ja institutsionaalsed struktuurid kujundavad sisse­rändajate lõimumisteede.

Samas kaasnevad registriandmestiku kasutamisega ka teatud piirangud. Analüüsist jäävad paratamatult välja sisse­rändajate subjektiivsed eelistused, diskrimineerimiskogemused ning mitteametlikud sotsiaalsed võrgustikud, mis kõik on otsustus- ja valikuprotsesside mõistmisel kesksel kohal. Samuti jäävad analüüsist välja dokumentideta võõras linnas sisse­rändajad, kelle lõimumisväljakutsed jäävad ametlikus statistikas nähtamatuks. Need piirangud avavad aga uusi perspektiive edasiseks uurimistööks, sealhulgas ka kvalitatiivsete meetodite kaasamiseks, uurimisperioodi pikendamiseks üle kümne aasta ning põlvkondade vaheliste eluasemekarjäärade uurimiseks.

Selle töö oluline järeldus on, et sisse­rändajate elukohapõhist lõimumist kujundab individuaalsete ressursside, struktuuriliste võimaluste ja institutsionaalsete piirangute kombinatsioon, mis kõik avalduvad omavahel tihedalt seotud töö ja kodu eluvaldkondades. Sisse­rändajate integreerumist ei saa täielikult mõista ilma et oleks arvestatud, kuidas tööturu ja eluasemesüsteemi protsessid aja jooksul omavahel suhestuvad ning kuidas need tulemused on mõjutatud poliitilisest raamistikust ja turustruktuuridest. Kokkuvõttes aitas doktoritöö tänu väljatöötatud täpsemale ja eluvaldkonnaspetsiifilisemale lähenemisviisile ning Põhjamaade konteksti võrdlemisele paremini mõista, kuidas kujundada majanduslikult kõiki kaasavat, ruumiliselt integreerivat ja sotsiaalset ühtekuuluvust soodustavat poliitikat.

SUMMARY IN FINNISH

Maahanmuuttajien asumisen siirtymät ja liikkuvuuden muutokset: tulokset kolmesta pohjoismaisesta hyvinvointivalttiosta

Kansainvälinen muuttoliike kehittyneisiin maihin on saavuttanut ennätystason. Kasvava työvoiman liikkuvuus ja merkittävät pakolaisvirrat muokkaavat sekä väestörakennetta että talouden dynamiikkaa. Maahanmuuttajat lievittävät ikään-tyvän väestön ja työvoima- sekä osaajapulaa aiheuttamia paineita eri puolilla Eurooppaa, mutta heidän vastaanottamisensa asettaa myös uusia haasteita vastaanottaville maille. Yksi keskeinen kysymys on maahanmuuttajien tulo jo valmiiksi kireille asuntomarkkinoille. Onnistuneet asumisratkaisut uudessa maassa ovat ratkaisevia maahanmuuttajien integroitumisen kannalta. Toisaalta rajallinen pääsy kohtuuhintaisiin ja laadukkaisiin asuntoihin johtaa usein maahanmuuttajien keskittymiseen tietyille kaupunkialueille, mikä puolestaan vahvistaa alueellista eriytymistä. Aiempi tutkimus on keskittynyt maahanmuuttajien asunnonomistukseen ja jakautumiseen eri asuntotyyppisiin. Tämä väitöskirja yhdistää nämä kaksi näkökulmaa ja tarkastelee, miten maahanmuuttajien asunnonomistus ja muutto asuinalueelta toiselle muokkaavat segregaa-tion ja integroitumisen malleja Euroopan kaupungeissa.

Saapuessaan uuteen maahan maahanmuuttajat asettuvat useimmiten vuokralle pienituloisten asuinalueille. Asunnon omistussuhteiden muutos viittaa siirtymiseen vuokralaisuudesta asunnon omistamiseen sekä niihin sosioekonomisiin ja institutionaalisiin tekijöihin, jotka ohjaavat tätä muutosta. Tämä tarkoittaa yksilöiden tai kotitalouksien fyysistä siirtymistä eri varallisuustasoilla olevien kaupunkialueiden välillä. Prosessiin vaikuttavat sekä maahanmuuttajan henkilökohtaiset tavoitteet että asunto- ja työmarkkinoiden rakenteelliset rajoitteet.

Tämän työn tieteellisen merkityksen perustana on mahdollisuus hyödyntää pitkäaikaisia rekisteriaineistoja. Näin voidaan tieteellisesti selittää maahanmuuttajien asunnonomistuksen valintoja ja heidän muuttoa-asuinalueelta toiselle sekä analysoida, miten nämä prosessit liittyvät maahanmuuttajien asemaan työmarkkinoilla ja heidän ansiotuloihinsa. Tutkimuksen empiirinen osa perustuu vertailevaan analyysiin, joka toteutettiin äskettäin saapuneiden maahanmuuttajien keskuudessa Helsingin, Tukholman ja Oslon pääkaupunkiseuduilla. Tutkimuksen kysymyksiä ovat:

1. Millaisia ovat eri lähtömaista tulevien maahanmuuttajien tilanteet työmarkkinoilla?

Tässä käsitellään kahta toisiinsa liittyvää integraation ulottuvuutta: toimialakohtaista erikoistumista ja eriytymistä työpaikoilla. Lisäksi tarkastellaan, miten nämä tekijät vaikuttavat maahanmuuttajien asemaan asuntomarkkinoilla, mikä on keskeistä toisessa tutkimuskysymyksessä.

2. Millaisia malleja muodostuu vastasaapuneiden maahanmuuttajien asunnon omistusmuodoissa ja asuinpaikan muutossa erilaisissa asuntomarkkinaympäristöissä?

Tässä analysoidaan maahanmuuttajien valintoja heidän aloittaessaan vuokralaisina pienituloisten asuinalueilla ja sitä, miten nämä valinnat vaihtelevat kolmen Pohjoismaan pääkaupunkien erilaisissa asuntomarkkinarakenteissa sekä suhteessa tulokkaiden asemaan työmarkkinoilla.

Tutkimuksen tulokset syventävät ymmärrystä maahanmuuttajien asuinpaikan, asumisen ja työmarkkinoiden eriytymismekanismeista ja osoittavat, miten nämä prosessit muokkaavat heidän kotoutumistaan. Tämä tutkimus tarjoaa asuntopolitiikan keskusteluihin tuoretta tietoa siitä, miten asumiseen liittyvää eriarvoisuutta ja alueellista eriytymistä voidaan vähentää yhteiskunnissa, joihin kohdistuu maahanmuuttoa.

Väitöskirja perustuu kansainväliseen vertailevaan empiiriseen tutkimukseen ja se koostuu kolmesta vertaisarvioidusta artikkelista. Analyysit perustuivat Suomen väestörekisterin pitkäaikaisiin ja yksityiskohtaisiin yksilötason aineistoihin (artikkelit I ja II), joiden avulla voitiin seurata asumisen muutoksia ajassa ja paikassa. Kolmannessa artikkelissa käytettiin lisäksi vertailukelpoisia rekisteritietoja Ruotsista ja Norjasta. Maita vertaileva näkökulma mahdollisti arvioinnin siitä, miten poliittiset ja institutionaaliset järjestelyt joko tukevat tai vaikeuttavat maahanmuuttajien kotoutumista.

Analyysit osoittivat, että maahanmuuttajan lähtömaan kontekstilla, kuten sen kulttuurisella läheisyydellä, lähtö- ja kohdemaiden välisellä vaurauserolla sekä maahanmuuttopolitiikan rajoituksilla, on merkittävä vaikutus maahanmuuttajien asemaan työ- ja asuntomarkkinoilla.

Vaikka maahanmuuttajat olisivat kulttuurisesti ja kielellisesti lähellä vastaanottavaa yhteiskuntaa, he sijoittuvat usein tietyille, eriytyneille ja matalapalkkaisille toimialoille verrattuna korkeamman tulotason maista tuleviin maahanmuuttajiin. Valikoiva työvoimapolitiikka, joka suuntaa tulokkaita työvoimapolun aloille, syventää maahanmuuttajien eriytymistä työmarkkinoilla ja vaikuttaa myös epäsuorasti heidän asumisuran mahdollisuuksiin.

Toinen tutkimuskysymys keskittyi integraatioon asumisuraan liittyen tarkastelemalla samanaikaisesti asunnon omistuksen muutoksia ja liikkuvuutta asuinalueiden välillä. Tulokset osoittivat, että maahanmuuttajat voivat edistyä yhdessä ulottuvuudessa ilman merkittävää muutosta toisessa. Esimerkiksi henkilö saattaa siirtyä vuokralaisena paremmalle alueelle tai toisaalta ostaa asunnon pienituloisten alueelta.

Helsingin, Oslon ja Tukholman vertailu osoitti, että asuntomarkkinoiden rakenteet vaikuttavat voimakkaasti edellä mainittujen prosessien välisiin yhteyksiin. Helsingissä sosiaalinen vuokra-asuntotuotanto on hajautettu eri kaupunginosiin, mikä vähentää alueellista segregaatiota, mutta ei kannusta omistusasumiseen. Oslolla painotus on omistusasumisen suuntaan, mikä parantaa maahanmuuttajien mahdollisuuksia varallisuuden kartuttamiseen, mutta kohtuuhintaiset asunnot sijaitsevat usein eriytyneillä alueilla. Tukholma sijoittuu

näiden välimaastoon: siellä maahanmuuttajat ovat todennäköisemmin sekä asunonomistajia että paremmissa naapurustoissa asuvia.

Tämä tutkimus oli mahdollista koko väestön kattavan lähestymistavan ansiosta. Se mahdollisti pitkäaikaisten tietojen yhdistämisen koskien maahanmuuttajien työllisyyttä, asumista ja naapuruston kontekstia. Aineisto loi edellytykset yksityiskohtaisille ja monipuolisille analyyseille eri elämänalueiden sisällä ja välillä ensimmäisten kymmenen vuoden aikana maahan saapumisen jälkeen. Kolmen Pohjoismaan pääkaupungin vertaileva tutkimus toi esiin sen, miten asuntopolitiikan suuntaukset ja institutionaaliset rakenteet muokkaavat maahanmuuttajien kotoutumisprosessia.

Rekisteriaineistojen käyttöön liittyy tiettyjä rajoituksia. Analyysi ei tavoita maahanmuuttajien subjektiivisia kokemuksia, kuten asumistoiveita, syrjinnän kokemuksia tai epävirallisten verkostojen vaikutuksia, joilla kaikilla on keskeinen merkitys päätös- ja valintaprosesseissa. Myös paperittomat maahanmuuttajat jäävät tutkimuksen ulkopuolelle, sillä heidän kotoutumisen haasteita eivät tilastot esitä. Nämä puutteet avaavat mahdollisuuksia jatkotutkimukselle, jossa voidaan hyödyntää myös laadullisia menetelmiä, pidentää tarkastelujaksoa yli kymmenen vuoden ja tarkastella myös sukupolvien välisiä asumisuran kehityksiä.

Tutkimuksen tärkeä johtopäätös on, että maahanmuuttajien asuinpaikkaan liittyvää kotoutumista muokkaavat yksilöllisten resurssien, rakenteellisten mahdollisuuksien ja institutionaalisten rajoitteiden yhteisvaikutukset. Maahanmuuttajien kotoutumista ei voida täydellisesti ymmärtää ilman, että huomioidaan työmarkkinoiden ja asumisjärjestelmän keskinäinen vuorovaikutus sekä miten niihin vaikuttavat poliittinen kehys ja markkinoiden rakenteet. Väitöskirjassa kehitetty tarkempi asumisuraan liittyvä tarkastelutapa sekä Pohjoismaiden kontekstin vertailu tarjoaa mahdollisuuden ymmärtää paremmin, miten voidaan luoda taloudellisesti kaikkia osallistavaa, alueellisesti integroivaa ja sosiaalista yhteenkuuluvuutta vahvistavaa politiikkaa.

SUMMARY IN ENGLISH

Tenure transitions and residential mobility of migrants: evidence from three Nordic welfare states

International migration to developed countries is at record highs, with rising labour migration and significant refugee inflows shaping the demographic and economic landscape. While migrants help to ease the pressures of ageing populations and alleviate labour and skill shortages across Europe, this also brings challenges to the host country. A central challenge facing destination countries is the considerable strain that the arrival of migrants places on already pressured housing markets. The accommodation of migrants plays a decisive role in shaping their opportunities for wider integration in the host society. Limited access to affordable, quality housing often results in residential clustering into certain neighbourhoods, reinforcing patterns of residential segregation between ethnic and socio-economic groups. While research on residential mobility and housing has mostly developed in separate strands from studies on migration and integration, this dissertation addresses these two processes together, examining how the tenure transitions and residential mobility shape wider patterns of residential segregation and integration in European cities.

The overarching aim of this dissertation is to provide new insights into the links between post-arrival tenure transitions and residential mobility among migrants who initially settle as renters in low-income neighbourhoods. *Tenure transition* refers to the sequences of tenure changes on the housing market that individuals experience over time, reflecting shifts between being a renter or homeowner and the socio-economic and institutional factors shaping these transitions. *Residential mobility* refers to the movement of individuals or households between neighbourhoods with varying levels of wealth. This process is influenced both by personal aspirations and by structural constraints in housing and labour markets. The main academic contribution of this work lies in the possibility of using long-term register data to examine the interconnections between the sorting of immigrants into specific housing tenure types and residential neighbourhoods, and how these processes are linked to their positioning in the labour market and earned income. The empirical part of the work is based on a comparative study among newly arrived immigrants in the Helsinki metropolitan area (Finland), Stockholm (Sweden) and Oslo (Norway), which addresses two research questions:

1. **What are the labour market outcomes of migrants arriving from different origin country contexts?** This question examines two types of labour market outcomes, niching and segregation. Labour market outcomes shape the opportunities of migrants in their home search that is addressed in the second research question.

2. **How do tenure transitions and residential mobility patterns unfold for newly arrived migrants in different housing market contexts?** This question focuses on the pathways migrants take after their initial settlement as renters in low-income neighbourhoods, and how these pathways vary across the distinct housing market structures of the three Nordic capitals as well as based on labour market outcomes.

This study deepens our understanding of the residential, housing, and labour market sorting mechanisms that shape migrants' integration trajectories. It offers fresh insights into ongoing housing policy debates on how to reduce housing inequality and residential segregation in migrant-receiving societies.

My doctoral thesis consists of three empirical articles published in peer-reviewed scientific journals and is part of an international comparative study. The analyses were based on detailed, individual-level longitudinal register data from Finnish registry data (Publication I and II), which allowed for tracking people's housing movements in time and space, as well as comparable register data from Sweden and Norway (Publication III). The cross-country comparative perspective provided insight into how policy frameworks and institutional arrangements can either facilitate or hinder the process of integration.

First, the analysis showed that country-of-origin context, that is capturing differences in cultural proximity, relative wealth levels between countries of origin and destination, and the degree of migration policy constraints, plays a crucial role in shaping both labour and housing markets outcomes. Migrants from lower-income countries, even when culturally and linguistically close to the host society, are more likely to enter highly niched and segregated labour market segments than migrants from high-income origins. These patterns are reinforced by selective labour migration policies, which channel newcomers into sectors with immediate shortages and lower entry requirements. Such structural sorting not only influences workplace segregation but also indirectly shapes migrants' residential mobility.

The second research question of the doctoral thesis focuses on residential integration, analysing two processes that are commonly treated separately: housing tenure change and residential mobility across neighbourhoods. This separation reveals that migrants can, and often do, experience upward movement in one process without corresponding change in the other. For example, renting in a high-income neighbourhood or purchasing a home in a lower-income area.

Comparative analysis across Helsinki, Oslo, and Stockholm underscores how the linkages between the two processes are strongly conditioned by housing system structures. In Helsinki, a well-distributed public rental sector facilitates early access to mixed-income neighbourhoods, reducing residential segregation, but barriers to homeownership remain. In Oslo, high rates of migrant homeownership promote wealth accumulation, but affordable housing is often located in lower-income, more segregated areas. Stockholm occupies an intermediate position, with migrants more likely to achieve both homeownership and neighbourhood upgrading.

This research was made possible by a whole-population approach that linked individual level longitudinal data on employment, housing and neighbourhood context. This allowed for nuanced analyses of between-domain and within-domain processes over the first decade of settlement. The comparative framework, covering three Nordic capitals, demonstrates the value of cross-national analysis for identifying how policy regimes and structural conditions shape integration pathways.

At the same time, the research acknowledges key limitations. The register-based approach cannot capture migrants' subjective preferences, experiences of discrimination, or informal social networks, all of which are central to understanding decision-making. Nor does it account for undocumented migrants, whose integration challenges remain largely invisible in official statistics. These limitations point towards fruitful directions for future research, including the integration of qualitative methods, the extension of longitudinal analysis beyond ten years, and the study of intergenerational trajectories.

the findings of this dissertation underscore that migrant residential integration is shaped by a combination of individual resources, structural opportunities, and institutional constraints, unfolding across interconnected life domains. Integration outcomes cannot be fully understood without considering how processes in the labour market and the housing system interact over time, and how these interactions are mediated by both policy frameworks and market structures. By developing a more fine-grained, domain-specific approach and applying it in a comparative Nordic perspective, this dissertation advances both the theoretical understanding and the empirical evidence base needed to design policies that balance economic inclusion, residential integration, and long-term social cohesion.

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PUBLICATIONS

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2024 Torpan, K., Wessel, T., Chihaya Da Silva, G. K., Sinitsyna, A. & Tammaru, T (2024) What are the differences in exiting from residential disadvantage in different housing regimes? A comparative study of tenure change, and neighbourhood change in three Nordic capital cities.
2022 Torpan, K., Sinitsyna, A., Kährik, A., Kauppinen, T. M., & Tammaru, T. (2022). Overlap of migrants' housing and neighbourhood mobility. *Housing Studies*, 1–26. 10.1080/02673037.2020.1849574
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- 2020 Tammaru, T., Torpan, K. & Jauhiainen, J. S. 2020. Eestlased Soomes ja nende Eestisse tagasirände kavatsused, Tuglase Seltsi ajakiri Elo, köide 5.
- 2020 Tammaru, T., Kährik, A., Kangur, K., 2020. Eesti ja Soome vaheline ränne: kas peagi on oodata rändepööret? & Viron ja Suomen välinen muuttoliike: kääntyykö suunta? (eds R. Alho & K. Kumer-Haukanömm). Mobility, migration and transnational connections between Estonia and Finland. Migration Institute of Finland
- 2019 Tammaru, T., Anniste, K. Kangur, K., Eestlased Soomes ja Eestisse tagasirände kavatsused (Estonians in Finland and their intentions on return migration) (eds. T. Pae & Ü. Mander). 100 years of Estonian Geography: Selected Studies. Publicationes Instituti Geographici Universitatis Tartuensis
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- 2016 Master's thesis in Human Geography: Changes in the Socioeconomic Composition of Tallinn's Neighborhoods from 2000 to 2011
- 2013 Bachelor's thesis in Human Geography: Satisfaction with Living Environment in Different Types of Neighborhoods in Tartu
- 2010 Estonian History and Civics Teachers' Association student research competition for the Estonian President's Awards. Research topic: Integration of Estonians and Non-Estonian Speaking Population in Agricultural Areas, Case Study of Kureküla State Farm in Tartu County
- 2009 Estonian History and Civics Teachers' Association student research competition for the Estonian President's Awards, book prize. Research topic: Commemoration of the Tartu Peace Treaty on February 2, 1988, in Tartu and its Aftermath

Conference presentations

- 2024 The Society for Risk Analysis – Europe (SRA-E) conference in Athens, Greece; “Risk in time and space” in 2–5 June, presentation on: “A comparative study of residential trajectories of migrants under different housing regimes: evidence from three Nordic capital cities”.

- 2022 International Integration Conference “Together or Separate: In Search of the Middle Way” Tallinn, Estonia; 10–11 November, presentation on “Residential mobility of newly arrived migrants: What are the patterns of exit from low-income neighbourhoods and rental sector?”
- 2022 European Network for Housing Research conference in Barcelona, Spain, 31.08–2.09 – Minority Ethnic Groups and Housing workshop, presentation on “Newly arrived migrants’ residential mobility: What are the patterns of exit from low-income neighbourhoods and rental sector?”
- 2019 European Network for Housing Research in Athens, Greece; 27–30 August – Minority Ethnic Groups and Housing workshop, presentation on “Housing and neighbourhood careers and their interdependency in the context of antisegregation policies”.
- 2018 Annual Conference of Finnish Geographers in Helsinki, Finland, 25th of October– Cross-Border Dialogues & Finland: Human Mobilities, Social Interactions & Transnationalism workshop, presentation on “Trajectories of Spatial Segregation and Housing Segmentation for Ethnic Minority Groups in Helsinki Region”.
- 2018 European Network for Housing Research conference in Uppsala, Sweden, 26–29 June, – Minority Ethnic Groups and Housing workshop, presentation on “Factors shaping neighbourhoods integration trajectories for ethnic minority groups in Helsinki Region”.
- 2018 American Association of Geographers Annual Meeting in New Orleans, USA 10–14 April 2018 – Segregation, (Anti-) Immigration, and Geography workshop, presentation on “Factors shaping neighbourhoods integration trajectories for ethnic minority groups in Helsinki Region”.
- 2016 Marie Jahoda summer school in Vienna “The Challenge of Governing Urban Diversity” – presentation titled “Changes in socioeconomic composition of neighbourhoods in Tallinn from 2000 to 2011”

ELULOOKIRJELDUS

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Sünniaeg: 25.02.1991
E-post: karin.torpan@ut.ee

Haridustee

2017–2026 **Turu Ülikooli**, Loodusteaduste valdkonna, Bioloogia, Geograafia ja Geoloogia doktoriprogrammi ja **Tartu Ülikooli**, Loodus- ja täppisteaduste valdkonna, Geograafia õppekava, ühine doktoriõpe

2013–2016 Tartu Ülikool, Loodus- ja tehnoloogiateaduskond magistriõppe eriala: inimgeograafia

2014–2015 sügissemester Universiteit Utrecht, külalisüliõpilane: Urban geography

2010–2013 Tartu Ülikool, Loodus- ja tehnoloogiateaduskond bakalaureuseõppe eriala: geograafia

1998–2010 Rannu Keskkool

Töökogemus

2022–... Kaitseväge Akadeemia, Juhtimise suuna lektor, Teadusmetoodika valdkonnas

2015–2017 Tartu Linnavalitsuse linnaplaneerimise ja maakorralduse osakonna, üldplaneeringu- ja arenguteenistuse planeerija ja analüütik

2015 Tartu Linnavalitsuse linnaplaneerimise ja maakorralduse osakonna, üldplaneeringu- ja arenguteenistuse linnaarengu spetsialist

Peamised uurimisvaldkonnad

VALDKOND: 1. Bio- ja keskkonnateadused; 1.10. Geograafia ja regionaal-uuringud; CERCS ERIALA: S230 Sotsiaalne geograafia; PÕHISUUND: Linna-geograafia, linnaplaneerimine, linnapoliitika, eluasemegeograafia, eluasemepoliitika, sotsiaalgeograafia, sotsiaalpoliitika, longituudsed andmed, statistiline andmeanalüüs

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- 2016 Magistritöö inimgeograafias: Muutused Tallinna naabruskondade sotsiaalmajanduslikus koosseisus aastatel 2000–2011
- 2013 Bakalaureusetöö inimgeograafias: Elukeskkonnaga rahulolu Tartu linna erinevates naabruskonna tüüpides
- 2010 Eesti Ajaloo- ja Ühiskonnaõpetajate Seltsi õpilaste ajalooalaste uurimistööde võistlus Eesti Vabariigi Presidendi auhindadele Uurimistöö teemal: Eestlaste ja muukeelse elanikkonna lõimumine põllumajanduspiirkondades Tartumaa Kureküla sovhoosi näitel
- 2009 Eesti Ajaloo- ja Ühiskonnaõpetajate Seltsi õpilaste ajalooalaste uurimistööde võistlus Eesti Vabariigi Presidendi auhindadele, raamatupreemia Uurimistöö teemal: Tartu rahu tähistamine 2. veebruaril 1988. aastal Tartus ja selle järelkajad

Ettekanded konverentsidel

- 2024 The Society for Risk Analysis – Europe (SRA-E) konverents “Risk aias ja ruumis”, Ateenas, Kreekas 2–5. juuni, ettekanne teemal: “A comparative study of residential trajectories of migrants under different housing regimes: evidence from three Nordic capital cities”.
- 2022 Rahvusvaheline lõimumisalane konverents „Kokku või lahku: keskte otsingul” 10–11. november, ettekanne teemal “Hiljuti saabunud siserändajate elukoha liikuvus: millised on madala sissetulekuga linnasadest ja üürisektorist väljumise strateegiad?”
- 2022 European Network for Housing Research konverentsil, Hispaanias, Barcelonas, 31.08–2.09, Minority Ethnic Groups and Housing sessioonis – ettekanne teemal “Newly arrived migrants residential mobility: What are the patterns of exit from low-income neighbourhoods and rental sector?”
- 2019 European Network for Housing Research konverentsil Kreekas, Ateenas, August 27–30 2019, – Minority Ethnic Groups and Housing sessioonis – ettekanne teemal “Housing and neighbourhood careers and their interdependency in the context of antisegregation policies”.
- 2018 Aastakonverents Finnish Geographers, 25. oktoober 2018, Soomes, Helsingis – Cross-Border Dialogues & Finland: Human Mobilities, Social Interactions & Transnationalism sessioonis, ettekanne teemal “Trajectories of Spatial Segregation and Housing Segmentation for Ethnic Minority Groups in Helsinki Region”.
- 2018 European Network for Housing Research konverents, 26–29 juuni 2018, – Minority Ethnic Groups and Housing sessioonis – ettekanne teemal “Factors shaping neighbourhoods integration trajectories for ethnic minority groups in Helsinki Region”.
- 2018 American Association of Geographers aastakonverents New Orleansis, USA 10–14. aprill 2018 – Segregation, (Anti-) Immigration, and Geography sessioonis, ettekanne teemal “Factors shaping neighbourhoods integration trajectories for ethnic minority groups in Helsinki Region”.
- 2016 Marie Jahoda suveülikool Viinis “The Challenge of Governing Urban Diversity” – ettekanne teemal “Changes in socioeconomic composition of neighbourhoods in Tallinn from 2000 to 2011”

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