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A generational perspective on owner-occupation rates among migrants and their (grand)children in the Netherlands

Wouter van Gent¹ · Aslan Zorlu¹

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Abstract

Classical assimilation theories hold that immigrant groups will slowly integrate economically over time over multiple generations, which implies that the (grand)children of immigrants will improve their housing market position compared to their (grand)parents and transition from rental housing to owner-occupation. This study uses unique data on the children and grandchildren of immigrants and native Dutch ('third generation') in 2018 to assess whether and how the descendants of large immigrant groups from the postwar era have attained ownership. The generational perspective is two-fold. First, we are interested in how individuals from various generations compare within and between origin groups (generational comparison). Second, the study also assesses the role of parental wealth and tenure in intergenerational transfers, i.e., ethnic and generational differences in the effects of these parental background variables. Our estimates from logistic regression models show that Surinamese-Dutch and Turkish-Dutch groups having higher rates than native-Dutch. The parental background variables partly predict owner-occupation rates and explain group differences, which indicates the importance of generational transfers.

Keywords Owner-occupied housing \cdot Migrants \cdot Intergenerational transfer \cdot Economic assimilation

1 Introduction

After arriving in host countries, immigrants typically start their housing trajectories in rental housing but tend to access owner-occupied housing as they establish themselves socially and gain economic success. This process is uneven, though. Differences in owner-occupation rates between migrant and ethnic minority groups and majority groups

Wouter van Gent
 W.P.C.vanGent@uva.nl
 Aslan Zorlu
 a.zorlu@uva.nl

¹ Urban Geographies, Amsterdam Institute for Social Science Research, Universiteit van Amsterdam, Nieuwe Achtergracht 166, 1018WV Amsterdam, Netherlands

have been established in multiple studies (e.g., Alba & Logan, 1992; Chakrabarty et al., 2019; Chatterjee & Zahirovic-Herbert, 2011; Constant et al., 2009; Haan, 2007; Torpan et al., 2022; Zorlu et al., 2014). The rates at which first-generation migrants and their (grand)children attain ownership have been linked to cultural preferences, economic standing, human capital (education, language), attachment to the host society, structural and institutional barriers related to prejudice and discrimination (e.g., Aliu, 2024; Constant et al., 2009; Emeka, 2020; Lukes et al., 2019). One element is the level of assimilation of migrant groups; the notion that as migrant families become more familiar with the host society and can attain economic success, they will also be more likely to accrue the income and wealth to move into (mortgaged) owner-occupation (see Alba & Nee, 1997; Maroto & Aylsworth, 2016).

Studies on owner occupation among immigrant groups often imply a generational scale when they state that tenure rates should or will grow closer to majority groups over a more extended period of time. Yet, relatively few studies have investigated how housing market positions of immigrant groups compare between and over multiple generations (e.g., Kim & Boyd, 2009; Li & Du, 2022; Musterd & Van Gent, 2012; Zorlu et al., 2014). Such a perspective may help us gauge how generations within migrant groups are 'assimilating' into owner-occupation. To be sure, owner-occupation, or home ownership, is not a naturally superior tenure. However, given its cultural and financial significance, it typically signifies a more robust housing market position than renting (see Ronald, 2008; Arundel, 2017). Therefore, access to ownership housing has increasingly become a necessary condition for wealth accumulation and socio-spatial integration (Agius Vallejo & Keister, 2020; Krivo & Kaufman, 2004; Torpan et al., 2022). In addition to gauging trajectories between groups, a generational perspective may help us explain the owner-occupation on the individual level. While immigrants do not have the resources, time or orientation to invest in ownership housing, their children and grandchildren may not have access to the level of parental support and other intrageneration transfers needed to gain access to mortgage loans and ownership (Christophers & O'Sullivan, 2019; Heath & Calvert, 2013).

This study aims to gauge whether there is evidence for generational housing market integration by looking at immigrant groups from multiple generations in the Netherlands in 2018. Our study is unique in that it includes data on the emerging 'third generation,' giving us a glimpse of future trends and an opportunity to compare groups and generations. In addition, our study also seeks to account for intergenerational transfers or lack thereof. Migrating to a new country often means moving into a position of economic, social, and cultural disadvantage in the receiving society. Such a disadvantage may continue to affect the position of children and grandchildren of migrants. So, to account for family socio-economic background, the analyses will include parental wealth and tenure position. In addition to presenting the characteristics of groups and generations, our study also seeks to gauge their positions while accounting for the economic and tenure of parents.

We use a large-scale individual-level register dataset, which was custom-made by Statistics Netherlands, to identify the (grand)children of the largest immigrant groups. In addition to descriptive data, we first present a multi-variate analysis of immigrant groups and their predicted probabilities of living in owner occupation as an indicator of housing market integration. This analysis and associated decomposition analysis will offset group differences in demographic and socio-economic composition and gauge the importance of group affiliation, generation membership, and parental status in housing outcomes.

2 Literature

2.1 Housing outcomes between generations

Classical assimilation theory predicts a decline of native-immigrant differences in socioeconomic outcomes from generation to generation as immigrant families adapt to the host society (Alba & Nee, 1997; Gordon, 1964). Western European studies show that migrants and their children tend to do better socio-economically over time, albeit in different degrees for different groups in various contexts, but also that disparities with majority populations often remain (Diehl & Schnell, 2006; Algan et al., 2010; Zorlu & Hartog, 2012; Hermansen et al., 2016; Zuccotti et al., 2017; Zorlu & Van Gent, 2023).

In terms of housing, this implies that as migrant families achieve (more) socio-economic success, they will improve their housing market position in a material sense, moving away from rental housing and initial points of entry in higher and lower-end migrant neighbourhoods and becoming more like the majority population. Such an 'obvious linear' assimilation outcome has been disputed by studies that point to the downward mobility of some groups (Portes & Zhou, 1993). Instead of social and housing market integration, the outcome may also be sustained stratification (Christophers & O'Sullivan, 2019). Newcomers may lack information and knowledge on how to apply for subsidies or mortgage loans (Maroto & Aylsworth, 2016). More importantly, migrants and their children may be confronted by prejudice and discrimination from housing institutions (Aliu, 2024; Emeka, 2020; Lukes et al., 2019). Also, the disposition of migrants towards their country of origin and host country matters (see Nikielska-Sekula, 2021). Migrants who identify with the host country are more likely to be in ownership (Constant et al., 2009). Such barriers, or constraints, to housing market integration may result in 'place stratification' (Alba & Logan, 1992), whereby migrant and ethnic groups remain geographically concentrated in certain areas, often in cities. So, the variety in outcomes means that it may be better to think of migrant dynamics as a generational trajectory that is shaped by group origins, timing of migration, and the various layers of context in the host country (see Guveli et al., 2016).

2.2 Intergenerational transfers in migrant families

It has long been recognised that spatial location and housing market positions are strongly tied to family and upbringing. Generally speaking, intergenerational transmissions of housing status can be direct and indirect.

First, parents and family members can provide wealth and income to their children during life and through inheritance (Henretta et al., 2018; Woodman, 2020). Family affluence may translate into having more housing options and residential opportunities, and, as such, it structures environmental factors that affect the health, safety, social relations and education of children growing up (Hermansen et al., 2022; Minh et al., 2017; Van Ham et al., 2014). At a later stage, parents may use their wealth and income to help their children financially on the housing market through guarantees, financial aid, or by acquiring housing for them (Arundel, 2017; Chatterjee & Zahirovic-Herbert, 2011; Ronald & Lennartz, 2019). Again, young adults from wealthy families may benefit from being able to access attractive, healthy, safe and well-positioned neighbourhoods (Hochstenbach & Boterman, 2017; Manley et al., 2020; Van Gent et al., 2023). Migrant families, particularly low-skilled labour immigrants and (post)colonial migrants, often settle with a significant material disadvantage. Low-income immigrants tend to see modest gains in their lifetime (Zorlu & Hartog, 2012), so there are fewer resources to transfer. In addition, financial hardship among migrant families may hurt children's home situation and school performance (Antman, 2011). Several European studies found that neighbourhood trajectories of children of migrants can be explained by persistent ethnic and economic inequalities which affect childhood conditions (Hermansen et al., 2022; Vogiazides & Chihaya, 2020; Zuccotti, 2019).

Second, intergenerational transfers may also be indirect through processes of socialisation. Parents may reproduce socially through transmitting values and norms, the organisation of daily life, exposure to social networks, language, modes of supervision and intervention, and how they are involved in their children's formal and informal education (Lareau, 1987, 2011). These transfers also extend to housing tenure. Through socialisation, parents may influence housing preferences regarding tenure (Lersch & Luijkx, 2015; Lux et al., 2018). Such parental influence is more substantial when material transfers occur (Lux et al., 2018).

For migrant families, such socialisation processes will likely be no different, but the migration experience can intersect with this process in various ways. Lower-skilled and low-income first-generation migrants may have had trouble entering owner occupancy, which would socialise the second generation towards rent. Yet, while unfamiliarity with the host society may initially thwart upward mobility in a material sense and housing status, migrants may also hold strong senses of collectivism ('conformity') and achievement values, leading to more ambitious standards for children (Nauck, 2001), potentially leading towards an orientation towards ownership. In addition, some migrant groups may value ownership and renting differently than others. Lastly, migrant groups may first settle concentrated in various regions and cities. Strong family ties can lead some groups to remain so over multiple generations (Thomas & Dommermuth, 2020; Zorlu, 2009). As housing market structures offer different opportunities, it may be that migrant groups are more concentrated in rent or ownership compared to the overall population (Gobillon & Solignac, 2020). Typically, urban areas offer more rent options.

2.3 Migrant groups in the Netherlands

The ways in which migration status can intersect with intergenerational transmissions in the field of housing may further contribute to their trajectories. The socio-economic conditions of first-generation migrant groups may affect subsequent generations. Culturally specific values related to housing, ownership, and family may be transmitted from parents to children. The role of family ties in mobility may lead some origin groups to be concentrated in regions over multiple generations. All three may structure housing market opportunities for groups differently.

This paper looks at the largest migrant groups in the Netherlands in the post-war era with a sizeable 'third generation'. These are from Germany, colonial-era Indonesia (Dutch East Indies), Surinam, and Turkey. Except for a brief period, Germans have been free to migrate to the Netherlands after WWII. Given the cultural and linguistic similarities, geographical proximity and long history of exchange, these migrants and particularly their children should face minor obstacles in Dutch society and are expected to be very similar to the Dutch majority group. Migrants from the Dutch East Indies and Surinam were familiarised with the metropole before their arrival. Yet, while the relatively small number of European colonials may have attained some affluence, many were former subjects recognised as non-White by the majority population. These migrants, together with 'guest workers' from Turkey and Morocco, were often disadvantaged in the labour market and found employment in low-skilled jobs. These disadvantages have been recorded as a nativemigrant gap in employment, quality of jobs and income (Crul & Doomernik, 2003; Zorlu & Hartog, 2012). Most immigrants hold a poor socioeconomic position, and while their children have booked some gains, the second and third generations still appear to carry a substantial part of parental disadvantages (Van Ours & Veenman, 2003; Zorlu & Van Gent, 2023). The timing of migration should be noted here. There has been a steady stream of German immigration since WWII. Dutch East Indies groups mostly arrived in the 1940s and 1950s. Turkish migrants first came in the 1960s, but chain migration continued into the 1980s. The largest influx of Surinamese was in the 1970s. Also, the Turkish-Dutch and Surinamese-Dutch 'third generations' are relatively young (see below).

Few studies have examined intergenerational transmissions in housing for these groups in the Netherlands. Zorlu and Van Gent (2023) looked at the economic position of the 'third generation' of migrant groups and found that income disparities with the majority population exist to varying degrees.¹ Interestingly, these ethnic gaps could be explained by age, socio-economic status (work, student, or on benefits), education, and parental income, not by ethnic affiliation. Regarding housing, the availability of social rental housing in cities has structured the settlement of many immigrant groups. While the first wave of labour migrants was primarily housed in the private rental sector, subsequent immigrants and their families moved into social housing once they were allowed access (Musterd & Deurloo, 2002). A significant share of the second generation has remained in social housing. There is evidence, though, for a higher rate of ownership of the 'second generation' Surinamese-Dutch and particularly Turkish-Dutch compared to the first generation. The second generation was also more likely to live in ownership in suburban neighbourhoods and less likely to live in concentrations (Musterd & Van Gent, 2012). Yet, while there is evidence for socio-spatial assimilation, there is also some ethnic sorting among first and second-generation minority groups (Bolt & Van Kempen, 2010; Van Gent et al., 2019). Zorlu (2009) found that family ties structure the mobility patterns of second-generation Turkish-Dutch more than second-generation Surinamese-Dutch. Yet, Boschman and Van Ham (2015) found evidence for housing market constraints and associated spatial sorting for first and second-generation Surinamese-Dutch, but less so for Turkish-Dutch.

3 Data and methods

Our empirical analyses use a custom-made dataset within the System of Social-statistical Datasets (SSD) from Statistics Netherlands (CBS).² The SSD is an individual-level register dataset of the entire population residing in the Netherlands, combining information from various sources, notably tax registers and municipal administrations. The data is geo-coded to statistical neighbourhoods, typically defined by infrastructure or natural boundaries. This dataset allows us to analyse the differences that existed in 2018. Unfortunately, the dataset does not allow us to track housing tenure and social position over time or to pinpoint the

¹ From small to large: German, Indish, Surinamese, Turkish and Moroccan.

² A custom-made dataset was needed to identify the grandchildren of migrants.

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	Age (mean)	Low income	Tenure Owner- occupied	Social rent	Private rent	Average housing tax value per m2	Single- family housing	Single-family owner occupa- tion	Urban munici- pality	Z
Dutch $(3 + generation)$	38	25.2%	69.3%	15.9%	14.3%	2.046	74.9%	61.9%	21.7%	3837170
Germany-1st generation	35	33.0%	42.3%	18.1%	38.5%	2.209	52.7%	34.8%	39.4%	50666
Germany-2nd generation	40	31.6%	62.4%	22.2%	15.0%	1.969	71.7%	54.9%	22.9%	55048
Germany—one parent 2nd generation	42	25.9%	70.4%	17.8%	11.5%	1.961	77.8%	63.3%	18.9%	215432
Germany—two parents 2nd generation	43	28.1%	70.0%	18.6%	11.1%	1.849	78.3%	63.6%	16.0%	10506
Dutch East Indies—2nd generation	45	24.1%	69.5%	19.3%	11.0%	2.263	72.8%	58.7%	31.3%	82086
Dutch East Indies—one par- ent 2nd generation	32	35.4%	49.9%	21.9%	27.5%	2.330	54.7%	39.7%	40.3%	108645
Dutch East Indies—two parents 2nd generation	32	40.0%	42.9%	28.1%	28.5%	2.399	51.7%	33.1%	42.4%	7930
Surinam-1st generation	43	41.5%	48.9%	40.5%	10.4%	2.041	50.1%	35.1%	60.6%	77672
Surinam—2nd generation	33	44.6%	40.7%	41.6%	17.4%	2.163	42.3%	27.4%	58.2%	73626
Surinam—one parent 2nd generation	32	42.4%	44.4%	30.4%	24.5%	2.340	50.8%	34.6%	43.3%	5573
Surinam—two parents 2nd generation	29	25.7%	37.8%	30.9%	30.0%	2.469	37.9%	27.3%	58.2%	340
Turkey-1st generation	41	55.2%	44.7%	46.0%	9.0%	1.880	54.5%	33.2%	51.9%	118051
Turkey- 2nd generation	32	48.9%	50.0%	37.5%	12.2%	1.888	53.8%	36.3%	49.5%	71,076
Turkey—one parent 2nd generation	26	48.9%	40.8%	36.4%	22.8%	2.125	46.0%	27.8%	37.3%	350
Turkey—two parents 2nd generation	23	57.1%	42.9%	32.9%	24.3%	1.700	49.3%	32.9%	46.6%	73
Total population	37,6	31.7%	60.1%	22.5%	17.0%	2.077	67.0%	51.9%	29.8%	4714244

year of arrival for the first generation. We focus on generational and group differences in the odds of living in an owner-occupied dwelling. As mentioned, owner-occupation is not necessarily a superior form of tenure but signifies a strong housing market position.

3.1 Techniques

We estimate logistic regression models with variables that predict the probability of ownership of housing, Y_i , for individual *I*, coded as 1 if this individual is in an owner-occupied dwelling ('owner-occupant) and 0 otherwise. We present analyses of various migration origin groups based on individuals aged 18 to 52 in 2018 who live independently.³ The maximum age is 52 to reliably designate the origins for multiple generations. Consequently, the first generation born in the Dutch East Indies is too old for the age restrictions in our comparative analyses. We use the following regression specification to estimate the probability of homeownership

$$Pr(Y_i = 1) = F(\alpha M_i + \beta_1 W_i^p + \beta_2 T_i^p + \beta_3 H_i^p + \gamma X_i)$$
(1)

where M_i denotes migration background of the third generation, W_i^p represents parental wealth while T_i^p , H_i^p denote parental tenure position and household composition, X_i represents control variables. α , $\beta's$ and γ are logistic parameters to estimate. Each outcome is estimated stepwise by logistic estimator in three steps. The first model includes just the migration background variable. The second model adds individual-level variables. The most complete model in both sets also adds parental variables (tenure, wealth and household composition). For the third model, we present predicted probabilities to compare groups and generations.

3.2 Decomposition analysis

To assess separate contributions of background characteristics to interethnic differences in the probability of homeownership, we apply a Blinder–Oaxaca decomposition analysis for non-linear models (Sinning et al., 2008). Decomposition allows us to ascertain the degree to which differences between ethnic groups may be explained by the explanatory variables of our model, in particular by the individual-level variables, urban context and parental variables (intragenerational transfers). The total difference in the probability of homeownership (T) between the native Dutch and migrant groups is given by

$$T = E(Y_D) - E(Y_m) \tag{2}$$

where $E(Y_D)$ and $E(Y_m)$ represent the expected probability of homeownership for native-Dutch and a migrant origin group; subscript *D* refers to Dutch and *m* indexes the third generation descending from migrant groups: German, Indish, Surinamese, and Turkish. This decomposition analysis uses separate regression models for Dutch and separate ethnic

³ Consequently, people who live at home with their parent(s) are excluded from the analyses. For 'third generation' after migration, the shares of adults (18+) are comparatively high for non-European origin groups: 6.9% for the combined German 3rd generation groups, 27.1% for Indish, 34.8% for Surinamese, and 60.7% for the Turkish group. The share is 13.7% for the 3rd generation Dutch residents.

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	Age (mean)	Low income	Tenure Owner- occupied	Social rent	Private rent	Average housing tax value per m2	Single- family housing	Single-family owner occupa- tion	Z
Dutch $(3 + generation)$	35	30.6%	52.2%	19.0%	28.2%	2.648	42.9%	33.3%	834165
Germany—1st generation	33	32.4%	32.2%	15.8%	50.8%	2.982	27.4%	17.1%	19953
Germany—2nd generation	38	34.2%	49.7%	23.6%	26.3%	2.718	40.7%	29.8%	12583
Germany—one parent 2nd generation	40	28.6%	57.7%	20.7%	21.2%	2.740	47.3%	37.2%	40828
Germany-two parents 2nd generation	40	28.3%	57.2%	20.7%	21.5%	2.951	46.4%	35.7%	1679
Dutch East Indies-2nd generation	44	24.0%	64.3%	19.6%	15.8%	2.890	47.7%	39.5%	25681
Dutch East Indies—one parent 2nd generation	31	39.7%	38.2%	20.2%	40.6%	2.963	30.1%	20.3%	43759
Dutch East Indies—two parents 2nd generation	30	41.7%	34.7%	22.3%	42.1%	3.154	27.9%	17.4%	3362
Surinam-1st generation	43	43.7%	44.9%	44.0%	10.9%	2.173	34.9%	25.1%	47102
Surinam—2nd generation	33	46.6%	36.0%	43.9%	19.7%	2.368	27.1%	17.5%	42891
Surinam—one parent 2nd generation	30	48.4%	32.3%	32.7%	34.2%	2.888	26.8%	16.6%	2414
Surinam-two parents 2nd generation	27	55.8%	27.8%	30.9%	41.2%	2.833	18.7%	10.3%	198
Turkey—1st generation	41	57.5%	40.5%	48.2%	11.1%	2.113	33.8%	21.6%	61297
Turkey- 2nd generation	32	50.2%	48.2%	37.8%	13.7%	2.093	37.0%	25.8%	35216
Turkey—one parent 2nd generation	27	50.4%	31.7%	38.1%	30.2%	2.630	23.7%	10.3%	130
Turkey-two parents 2nd generation	24	45.5%	n/a	45.2%	n/a	1.937	n/a	n/a	34
Total population	35,5	39.1%	42.9%	28.0%	28.4%	2.597	35.5%	25.3%	1171292

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	Model 1	Model 2	Model 3
Migration background (ref: native Dutch grandparents)			
Germany—1st generation	0.499***	0.564***	0.797***
Germany—2nd generation	0.738***	0.768***	0.854***
Germany-one parent 2nd generation	1.054***	0.900***	0.947***
Germany-two parents 2nd generation	1.030	0.889***	0.937*
Dutch East Indies—2nd generation	1.004	0.707***	0.792***
Dutch East Indies-one parent 2nd generation	0.438***	0.685***	0.715***
Dutch East Indies-two parents 2nd generation	0.328***	0.515***	0.571***
Surinam—1st generation	0.425***	0.544***	0.764***
Surinam—2nd generation	0.304***	0.567***	0.727***
Surinam—one parent 2nd generation	0.355***	0.691***	0.793***
Surinam-two parents 2nd generation	0.268***	0.862	1.010
Turkey—1st generation	0.362***	0.585***	0.825***
Turkey- 2nd generation	0.440***	1.107***	1.440***
Turkey—one parent 2nd generation	0.309***	1.218	1.504**
Turkey-two parents 2nd generation	0.362***	3.246***	4.188***
Gender (ref: male)			
Female		0.991	0.991
Age		1.393***	1.380***
Age, squared		0.996***	0.997***
Urban municipality (ref: non-urban)		0.530***	0.529***
Equivalised household income quintiles (ref: third)			
First		0.187***	0.192***
Second		0.391***	0.401***
Fourth		1.800***	1.760***
Fifth		2.447***	2.314***
Main source of income (ref: employment)			
Self-employment		1.215***	1.184***
Benefits		0.419***	0.430***
Student loans		0.821***	0.775***
Other		1.754***	1.775***
Parental formation (ref: parents live together)			
Parents live separated			0.824***
One parent in dataset			0.762***
No parents in the set			0.829***
Both parents in set: missing address data			0.927***
Parental wealth quintile (ref: third)			
First			0.839***
Second			0.897***
Fourth			1.018*
Fifth			1.092***
Missing data			0.863***
Tenure position parents (all parents in ownership)			
All parents in social rent			0.681***
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Table 3 Logistic regression models of living in owner-occupation; odds ratios

	Model 1	Model 2	Model 3
All parents in private rent			0.802***
Parents in ownership and rent			0.873***
Parents in social and private rent			0.736***
Parental tenure data missing			0.765***
Constant	2.281***	0.003***	0.004***
N	1,193,690	1,193,690	1,193,690
R2	0.038	0.257	0.264
Log likelihood	-7.66e+05	-5.92e + 05	-5.87e + 05

Table 3 (continued)

* p<.05; ** p<.01; *** p<.001

origin groups to predict the probability of homeownership from observed characteristics of individuals. Since we have a binary dependent variable, the likelihood of homeownership (Y), logistic regression estimator is employed. A Blinder–Oaxaca decomposition relies on separate models for the groups to be compared which is in our case Dutch versus other ethnic origin groups. The binary logistic models for the probability of homeownership between two comparison groups are given by

$$Pr(Y_{iD} = 1) = F_D(\beta_D x_{iD})$$
(3)

$$Pr(Y_{im} = 1) = F_m(\beta_m x_{im}) \tag{4}$$

where F(.) is the cumulative logistic distribution, x is a vector of characteristics determining the probability of homeownership, β is a vector of parameters to estimate. These equations include the identical variables listed in the extended model III in Eq. 1. Using these regression models, the native-ethnic group gap in the probability of homeownership (T) is decomposed into two main components as

$$T = \left[E_{\beta D}\left(Y_{iD}|x_{iD}\right) - E_{\beta D}\left(Y_{im}|x_{im}\right)\right] - \left[E_{\beta D}\left(Y_{im}|x_{im}\right) - E_{\beta m}\left(Y_{im}|x_{im}\right)\right]$$
$$T = \left[Explained\right] - \left[Unexplained\right]$$
(5)

where \bar{x}_{iD} and \bar{x}_{im} denote the mean values of characteristics, $\hat{\beta}_D$ and $\hat{\beta}_D$ denote the estimated parameters. The first term on the right-hand side[...], represents the part of the differential in the probability of homeownership between Dutch and an origin group explained by the observed characteristics. The second term displays the differential, which cannot be explained by the observed characteristics.

To decompose ethnic differentials in the expected probability of homeownership, we estimate logit models, including the set of regressors as in the extended model in Eq. 1. A summary of the decomposition analysis is presented below, and the full results are given in the Appendix. The emphasis now is on the explained component of the ethnic gap between Dutch and ethnic minority groups.

3.3 Migrant variable

Following the definitions of Statistics Netherlands, first-generation migrants are nationals and non-nationals born abroad unless they have two Dutch parents. The 'second generation' is born in The Netherlands and is defined based on at least one non-Dutch parent, whereby the national origin is based on the migrant parent. If two migrant parents have different origins, the 'second generation' is defined as mixed (omitted in this analysis). Children of at least one parent that belongs to the 'second generation' may be characterised as 'third generation'. In the 'third generation' categorisation, we distinguish between persons with two parents with immigration backgrounds (same origin) and persons with one native-Dutch parent and one from the 'second generation'. We also include people with native-Dutch grandparents as a reference for housing market integration. The descriptive analysis uses the total population, but our regression models use a 10% sample of third-generation native Dutch.

3.4 Other variables

In addition to tenure, our descriptive data includes the share of low-income households (defined as the lower two quintiles of equivalised household income), average housing value (tax data), the share of individuals living in single-family housing and single-family owner-occupation, and the share living in urban municipalities (based on address density).

The models include *migration background* based on origin and generation as detailed above but also account for *gender*, *age* and *age squared*. The dummy variable *urban municipality* is based on Statistics Netherlands definitions and denotes the highest category of address density among Dutch municipalities.⁴ The reference 'non-urban' includes all suburban and rural municipalities. Without any dispersal policies or assisted living schemes, new immigrants tend to settle in urban regions, although not exclusively (Catney, 2018; Zorlu & Mulder, 2008). Notably, lower-skilled migrants tend to live in older, typically disadvantaged, neighbourhoods at the lower end of the housing market (Lersch, 2013). However, this may shift to older suburban areas due to urban gentrification (Van Gent & Musterd, 2016). To account for individual socio-economic status, we include *primary source of income* and *equivalised household income quintiles*.

The variables that account for intergenerational transfers are *parental wealth quintile* and, because tenure position is often reproduced (Chatterjee & Zahirovic-Herbert, 2011; Heath & Calvert, 2013), the *tenure position of parents*. Because parents may live separately in different households, we include a *parental formation* variable: the parental wealth quintile is the highest of both parents. The Tables 4 and 5 in the appendix gives the descriptive statistics of the models.

Lastly, as we do not have cross-national data, information on parental wealth and location is often missing for first-generation migrants, except those who migrated with or before their parents as children or young adults. Thus, all parental variables include a category for missing parental data to include the entire first generation in the sample.

3.5 Reflection

Our study is uniquely positioned because it also assesses the positions of (sometimes young) 'third generations'. We feel compelled to also reflect on the dangers of studying the grandchildren of migrants using social and spatial statistics, particularly when groups are designated as 'non-native', 'migrants' or 'non-European' (Yanow & Van der Haar, 2013). We acknowledge that the use of 'second' and 'third generation' might imply certain

⁴ 23 municipalities have this highly urban designation. Except for Maastricht and Groningen, they are all located in the North and South Holland, Utrecht, and Brabant provinces.

citizens being different and 'out of place'. Yet, while we should be aware of the politics of statistics, language and statecraft (see Uitermark et al., 2017; Slootweg et al., 2019), research is needed to assess how the offspring of various migrant groups are faring and, more importantly, whether they are not becoming subordinated, marginalised and segregated populations in European societies.

4 Findings

Table 1 presents descriptive statistics of comparative housing market data for our groups. As expected, first generation groups show lower rates if ownership. Some of these groups may be new to the country or came to the Netherlands with few resources and opportunities. Native Dutch, second- and 'third-generation' German-Dutch and second-generation Indish are more likely to live in owner-occupied dwellings than the average. However, these differences are just observed outcomes, without any correction for background variables, and the older age structure of the Dutch and Indish groups may determine these differences. They are also more often found in single-family dwellings. Strangely, their average housing value is comparatively low. The difference in housing prices and tenure may be explained by geography. Except for the (grand)children of German migrants, all 'migrant groups' are more likely to live in urban municipalities. This selection may skew housing market data as less owner-occupied housing is available, and prices per square meter are generally higher in cities. Table 2 shows data for urban municipalities. We see that the owner occupation rates tend to be lower here. The groups show similar relative differences, but the Surinamese-Dutch first generation and the Turkish-Dutch second generation show above-average owner-occupation rates for cities. These rates are not as high as for native Dutch and second and third-generation German-Dutch, though. The second and third-generation German-Dutch are generally less likely to live in urban municipalities (often in border regions). Those living in cities are more often found in owner-occupied dwellings and single-family housing than the other groups.

4.1 Models

Tables 1 and 2 also indicate that there are quite some differences in average age and income positions. For instance, a large share of first-generation Germans are students with relatively small incomes and are younger. The second-generation Indish are relatively old, while the third-generation groups, except German, are relatively young. Also, around 50% of the Turkish-Dutch belong to the lower income quintiles, which would make it harder for this group to acquire ownership of housing.

To better understand generational and ethnic differences, we employ three logistic regression models that estimate the probability of being in owner occupation (Table 3). Model 1 only includes the origin groups. Model 2 adds individual-level variables, and Model 3 adds parental variables, leading to a higher pseudo R². Unsurprisingly, the extended model indicates that older people who are not on benefits, have a higher income, and live outside urban municipalities are all more likely to be owner-occupants. There is also a positive effect for parental wealth and for both parents being in owner occupancy (parental tenure variable), both indicative of intergenerational transfers. The model also indicates differences between origin groups and third-generation native Dutch.

4.2 Differences between groups and generations

Figure 1 shows the predicted probability of living in an owner-occupied dwelling for each group as estimated in Model 3 in Table 3. These displayed differences between the groups reflect more precise differentials since the estimates are conditional on the observed individual and parental variables. The general trend is that the second and third generations are more likely to gain access to owner-occupied housing than the first generation. Yet, except for Turkish-Dutch, all groups show lower rates than third-generation Native Dutch. The lower rates indicate that migration histories may affect housing market positions. Notably, the gap is also there for some German-Dutch groups who are least likely to show such differences.

Compared to German-Dutch, groups with colonial histories show only modest increases in ownership rates across generations (Surinamese-Dutch) or even a downward trend (Indish-Dutch). The first generation from the East Indies could not be included in these analyses, but third-generation groups show a decline in owner occupancy rates compared to the second generation. This is likely related to the variation in this migrant group: former colonists, administrators, and soldiers of European and Asian descent. Some of these had accrued modest to considerable wealth, while others –often former colonial subjects with Asian backgrounds have historically struggled in Dutch society (Özer et al., 2017). It may be that this latter group is more likely to intermarry than colonial families with European upper- and middle-class backgrounds. So, assortative matching may explain the relatively poor housing market and economic position of individuals who are third-generation colonial migrants from both sides of their family (see income in Table 3).

Interestingly, the reverse is the case for Turkish-Dutch. While their actual rates are lower, model 6 predicts higher ownership among the second generation. Because of their young average age, the models estimate comparatively high ownership rates, higher than all other groups. Their rate may become lower as this group ages into Dutch society. Still, it indicates a strong orientation on ownership among this origin group (also Musterd & Van Gent, 2012).

4.3 Intragenerational transfers: parental status

In order to reveal the contribution of group differences in intergenerational transfers to differences in the probability of homeownership, we perform a Blinder–Oaxaca decomposition analysis. For this analysis, we decompose inter-group differences between Dutch and other ethnic groups based on model 3 in Table 3, the most extended one, and take Dutch as the reference group with which to compare other groups. We present an overview of how estimates of selected variables additively explain differences in Fig. 2. The full results of the decomposition analysis are presented in the Appendix. Except for the Turkish-Dutch group, individuals with migration histories still show a tenure gap compared to native Dutch. The decomposition analysis did indicate that differences between third-generation native Dutch and other origin groups can be largely -but not fully- explained by our variables. The only exceptions are the two small 'third-generation' Turkish groups, which we could not reliably decompose (mainly due to their young age).

Figure 2 indicates that most differences can be explained by differences in age and household income. As expected, geography also plays a role, with urban-oriented groups less likely to be in owner-occupied housing. Group differences in parental wealth and tenure modestly explain differences in ownership, yet they are more notable for Surinamese-Dutch and Turkish-Dutch groups. Interestingly, the higher rates of ownership among the (grand)



Fig. 1 Predicted probabilities of ownership for origin groups (based on model 3)

children of Turkish immigrants compared to the native-Dutch group cannot be explained by their unfavourable characteristics, like younger age, lower income and parental background. This finding points to unobserved economic, cultural or demographic factors.

5 Conclusion and discussion

Classical assimilation predict that new immigrant groups find their footing and improve their socio-economic and housing market positions over multiple generations. These theories have been critiqued for ignoring path dependency, institutional arrangements, discrimination, and group differences, which may all lead to different trajectories (Guveli et al., 2016; Maroto & Aylsworth, 2016; Portes & Zhou, 1993). Stressing the importance of differences between groups and generations, our paper had two goals.

First, we sought to compare owner occupation rates of various migrant generations in the Netherlands. Our findings indicate that, with the notable exception of Turkish-Dutch, all groups show lower rates than the native-Dutch group. Our models cannot fully explain the position of the Turkish-Dutch group. The high rate can be related to home-country orientation and ownership valuation (see Constant et al., 2009; Zorlu et al., 2014; Guveli et al., 2016).



Fig. 2 Decomposition of explained differences between third-generation native-Dutch and origin groups for selected coefficients (based on Blinder-Oaxaca decompositions of model 6; see Tables 4 and 5 in appendix). Parental variables are emphasized

Furthermore, within migrant groups, there is evidence that subsequent generations improve their housing market position, at least in terms of owner-occupation rates, compared to their parents. This is also the case for immigrants, who are typically associated with disadvantage (Surinamese-Dutch and Turkish-Dutch). The only exception were the grandchildren of migrants from colonial-era Indonesia. This finding may be related to a large group of individuals of Moluccan descent who live concentrated in several municipalities and show lower socioeconomic outcomes (Özer et al., 2017, also Zorlu & Van Gent, 2023). While these trends are optimistic, there are still differences between groups and with the majority population. Even third-generation German-Dutch people do not have the same ownership rates as our native Dutch group. So, further research may continue to monitor assimilation over generations. This could mean comparing spatial outcomes, such as spatial stratification, the status or environmental quality of the residential environments or the level of segregation at work, in transit or during leisure time (Piekut et al., 2019).

Second, our study also highlights the significance of intergenerational transfers by including variables on parental tenure and wealth. These, in addition to age, household income, and geography, provide part of the explanation for differences in ownership likelihood. This indicates that the economic and housing status of migrants remain relevant for explaining the housing outcomes of subsequent generations in migrant families. Our analyses also indicate that geographical context matters, yet it is unclear whether this context affected groups over multiple generations.

This study has taken a first look at the housing market position of migrant groups from a generational perspective. As such, this paper stands at the intersection of recent studies that adopt an intergenerational perspective on housing situation (e.g. Howard, 2024; Lersch & Luijkx, 2015; Lux et al., 2023; Ronald & Lennartz, 2019; Van Gent et al., 2023), and a literature that looks the housing situation of minority and immigrant groups (e.g. Chakrabarty et al., 2019; Gobillon & Solignac, 2020; Hanhörster et al., 2022; Loomans, 2023; Lukes et al., 2019). In terms of housing research, our study's contribution lies in its intergenerational perspective—in terms of generations within groups and parental transmissions- on the housing situation of minority groups. Family wealth and the tenure situation of parents provide a significant and relevant explanation for why people with a migration family history, particularly of Turkish and Surinamese origins, have different ownership rates than native Dutch. Also, we have shown that these rates are different for generations. Conversely, our findings demonstrate that issues of generational inequality in housing strongly intersect with migration family histories of most groups (except Turkish) and migrant status (see also Nikielska-Sekula, 2021). When migration histories and cultural affiliation are detrimental to ownership, this will have repercussions for housing market positions, geographies, and family wealth (see Van Gent et al., 2023). Some migrationbased minority groups may suffer additional disadvantage in a context where family wealth increasingly structures stratification (Arundel, 2017; Christophers & O'Sullivan, 2019).

While worthwhile, our study also has its limits. For many first-generation migrants, we have no data on their parents, and on their year and location of arrival. More importantly, we could only assess the situation for one year, leading to a cross-sectional assessment. To understand found differences, further research may take a look at different immigration cohorts comparatively, at their opportunities and constraints on the housing market, their regional contexts, their specific life course trajectories, and their modes of intergenerational transfer (cf. Finney, 2011; Li & Du, 2022; Zuccotti, 2019). Such analyses may also further investigate transfers over multiple generations, whereby grandparental status is also considered. To be sure, some of our 'third generation' groups are still relatively young. Such investigations would also allow for more detailed analyses and comparisons of the generational trajectories of specific origin groups. The demographics of postwar migration to Western Europe mean that European countries will see more multi-generational families with a migration background in the coming years. So, as time progresses and populations grow, more research will be possible and necessary.

Appendix

Table 4 Descriptive statistics of variables used in logistic	% in owner occupied dwelling	61.32
regression models (N: 1,193,690)	Migration background	
	Dutch-born grandparents (10% sample of pop.)	31.05
	Germany—1st generation	3.02
	Germany—2nd generation	4.41
	Germany—one parent 2nd generation	17.41
	Germany-two parents 2nd generation	0.85
	Dutch East Indies—2nd generation generation	6.64
	Dutch East Indies—one parent 2nd generation	8.68
	Dutch East Indies-two parents 2nd generation	0.63

Table 4 (continued)

Surinam—1st generation	6.10
Surinam—2nd generation	5.76
Surinam—one parent 2nd generation	0.43
Surinam-two parents 2nd generation	0.03
Turkey—1st generation	9.30
Turkey- 2nd generation	5.66
Turkey—one parent 2nd generation	0.03
Turkey-two parents 2nd generation	0.01
Gender (ref: male)	
Female	52.1
Age (average)	38.7
% in urban municipality (dummy variable)	32.90
Equivalised household income quintiles	
First	18.30
Second	15.28
Third	20.83
Fourth	23.05
Fifth	22.53
Main source of income	
Employment	66.74
Self-employment	11.50
Benefits	12.50
Student loans	5.42
Other/ unknown	3.84
Parental formation	
Parents live together	45.63
Parents live separated	14.13
One parent in dataset	5.54
No parents in the set	9.18
Both parents in set; missing address data	25.52
Parental wealth quintile	
First	10.34
Second	17.71
Third	14.73
Fourth	19.28
Fifth	21.85
Missing data	16.09
Tenure position parents	
All parent(s) in owner-occupied	45.69
All parent(s) in social rent	26.21
All parent(s) in private rent	4.37
Parents in ownership and rent	5.16
Parents in social and private rent	1.13
Parental tenure data missing	17.43

Table 5 Blinder-C	Jaxaca decor	nposition for	r origin grou	ups (model ov	wner-occupa	ttion)							
	German 1	German 2	German 3	German 3 strict	Dutch Indish 2	Dutch Indish 3	Dutch Indish 3 strict	Surinam 1	Surinam 2	Surinam 3	Surinam 3 strict	Turkish 1	Turkish 2
Group Coef- ficient	0.476 ***	0.625 ***	0.705 ***	0.701 ***	0.696 ***	0.500 ***	0.430 ***	0.492 ***	0.408 ***	0.445 ***	0.378 ***	0.455 ***	0.502 ***
Difference with native Dutch	0.219 ***	0.070 ***	-0.010 ***	-0.005	-0.001	0.195 ***	0.265 ***	0.204 ***	0.287 ***	0.250 ***	0.318 ***	0.241 ***	0.194 ***
Explained	0.115 ***	0.039 ***	-0.025 ***	-0.022 ***	-0.047 ***	0.156 ***	0.188 ***	0.137 ***	0.245 ***	0.229 ***	0.345 ***	0.185 ***	0.277 ***
Unexplained	0.104 ***	0.031 ***	0.015 ***	0.016 ***	0.046 ***	0.039 ***	0.077 ***	0.067 ***	0.042	0.022 ***	-0.027 ***	0.056 ***	-0.084 ***
Explained (selecte	ed variables)												
Age	0.099 ***	-0.154 ***	-0.229 ***	-0.293 ***	-0.466 ***	0.409 ***	0.420 ***	-0.335 ***	0.323	0.398 ***	0.572 ***	-0.279 ***	0.430 ***
Age2	-0.064 ***	0.137 ***	0.193 ***	0.251 ***	0.393 ***	-0.332 ***	-0.344 ***	0.279	-0.273 ***	-0.303 ***	-0.425 ***	0.221 ***	-0.361 ***
Urban munic- ipality	0.024 ***	0.002 ***	-0.004 ***	-0.008 ***	0.014 **	0.028 ***	0.031 ***	0.062 ***	0.056 ***	0.032 ***	0.053 ***	0.050 ***	0.044 ***
HH income 1st quintile	0.025 ***	0.014 ***	0.001 ***	0.004 ***	-0.001 ***	0.026 ***	0.032 ***	0.032 ***	0.041	0.037 ***	0.058 ***	0.062 ***	0.046 ***
HH income 2nd quintile	-0.002 ***	0.003 ***	0.001 ***	0.002 ***	-0.001 ***	0.001 ***	0.005 ***	0.009 ***	0.008 ***	0.005 ***	0.008 **	0.017 ***	0.012 ***
HH income 4th quintile	0.011 ***	0.004 ***	0.001 ***	0.001 **	0.002 ***	0.006 ***	0.008 ***	0.007 ***	0.009 ***	0.008 ***	0.012 ***	0.015 ***	0.010 ***
HH income 5th quintile	0.006 ***	0.004 ***	0.000 ***	0.003 *	-0.007 ***	0.004 ***	0.008 ***	0.018 ***	0.016 ***	0.010 ***	0.013 ***	0.029 ***	0.024 ***
Parental wealth 1st quintile	-0.001 ***	0.000 ***	0.000 ***	0.000 ***	0.000 ***	0.001 ***	0.003 ***	0.001 ***	0.003 ***	0.002 ***	0.003 ***	0.000 ***	0.004 ***

Table 5 (continue	(p												
	German 1	German 2	German 3	German 3 strict	Dutch Indish 2	Dutch Indish 3	Dutch Indish 3 strict	Surinam 1	Surinam 2	Surinam 3	Surinam 3 strict	Turkish 1	Turkish 2
Parental wealth 2nd quintile	-0.001 ***	0.002 ***	0.001 ***	0.001 ***	0.002 ***	0.001 ***	0.002 ***	0.004 ***	0.005 ***	0.003 ***	0.003 ***	0.002 ***	0.008 ***
Parental wealth 4th quintile	0.001 ***	0.000 *	0.000 ***	0.000	0.000 ***	0.000 **	0.001 *	0.001 ***	0.001 *	0.000 *	0.001 ***	0.002 *	0.001 ***
Parental wealth 5th quintile	0.006 ***	0.003 ***	0.002 ***	0.002 ***	0.002 ***	0.001 ***	0.002 ***	0.007 ***	0.006 ***	0.003 ***	0.004 ***	0.008 ***	0.007 ***
Parents in social rental housing (ref: parents in owner- ship)	-0.007 ***	0.005 ***	0.004 ***	0.004 ***	0.006 ***	-0.002 ***	0.004 ***	0.012 ***	0.016 ***	0.006 ***	0.004 **	0.005 ***	0.027 ***
Parents in pri- vate rental housing (ref:parents in owner- ship)	-0.001 ***	0.000 ***	0.000 ***	0.000 ***	0.001 ***	0.000 **	0.000	-0.001 ***	0.000	0.000 **	0.001	-0.001 ***	-0.001 ***
Sum selected variables	0.097	0.021	-0.031	-0.032	-0.055	0.142	0.171	0.097	0.211	0.202	0.307	0.131	0.252
Other variables	0.018	0.018	0.006	0.010	0.008	0.015	0.017	0.040	0.034	0.026	0.038	0.054	0.025
* p<0.05; ** p<	0.01, *** p <	< 0.001											

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