

# 6 Intergenerational continuity of ethnic segregation: Socio-spatial assimilation of third generation immigrants in the Netherlands

Merle Zwiers  
Under review

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## § 6.1 Introduction

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Ethnic segregation continues to be a persistent feature of Western European cities (e.g. Jivraj & Khan, 2015; Lymperopoulou & Finney, 2017; Zwiers et al., 2018a). Ethnic segregation is often understood as the result of a lack of socio-spatial assimilation and is thought to have hampering effects on social integration, mobility, and interethnic contact, thereby posing a threat to inclusive diverse societies (Kaplan & Douzet, 2011; Monkkonen & Zhang, 2013; Van Ham & Tammaru 2016). In 2016, the four largest ethnic groups in the Netherlands – Moroccans, Turks, Surinamese, and Antilleans – comprised 7.6% of the total population (Statistics Netherlands, 2017). This relatively small share of the population tends to be overrepresented in particular (deprived) neighborhoods where they comprise half of the population (Zwiers et al., 2018a). Patterns of ethnic segregation of these four ethnic groups have remained relatively stable in the Netherlands over the past few decades (Zwiers et al., 2018a). Ethnic segregation is often viewed as the result of a process of assimilation that develops over the course of generations (Peach, 1996). As the first generation tends to concentrate in particular neighborhoods after recent immigration, the second generation generally shows more spatial dispersal and movement to more mixed neighborhoods (e.g. Massey, 1985). Indeed, many studies confirm that second generation immigrants show more spatial mobility into non-concentration neighborhoods as a result of socioeconomic assimilation (e.g. Bolt & Van Kempen, 2010a; South et al., 2005). However, these findings only apply to a small share of immigrants, as most immigrants continue to lag behind in educational and labor market outcomes compared to the native population

(Huijnk & Andriessen, 2016; Statistics Netherlands, 2016b). It has been argued that this lack of socioeconomic assimilation inhibits their socio-spatial mobility, explaining the persistence of ethnic concentration neighborhoods in the Netherlands (Bolt & Van Kempen 2010a).

In the Dutch context, this idea of gradual social and economic assimilation over the course of generations is implicitly captured in the official definition of ethnicity (Kooiman et al., 2012). In the Netherlands, an individual is considered to be an ethnic minority when he/she has at least one parent abroad, distinguishing between those born abroad themselves (first generation) and those born in the Netherlands (second generation) (Statistics Netherlands, 2016a). According to this definition, third generation immigrants who are born in the Netherlands and whose parents are both born in the Netherlands, but with one or more grandparents from an immigrant background, are defined as native Dutch (Statistics Netherlands, 2016c). Behind this definition of ethnic group membership lies the assumption that third generation immigrants are socially, economically, and culturally integrated into Dutch society. According to the spatial assimilation hypothesis, this would be reflected in spatial integration as well, meaning that the third generation would predominantly live in non-concentration and more ethnically mixed neighborhoods, leading to decreasing levels of ethnic segregation. However, to date, there are no studies that have analyzed the socio-spatial behavior and outcomes of third generation immigrants in the Netherlands.

The official definition of ethnicity also has important empirical consequences. Because third generation individuals are not included as minority group members in the definition of ethnicity, they tend to 'disappear' in official statistics (cf. Kesler & Schwartzman, 2015). As a result, it is unclear how the residential mobility behavior of third generation immigrants will affect ethnic segregation. When second generation immigrants have children, the share of immigrants in a neighborhood will decrease as these children are officially defined as native Dutch. In addition, when third generation immigrants move into ethnic concentration neighborhoods, statistically, this would be interpreted as an inflow native Dutch, decreasing the share of immigrants in a neighborhood. Third generation immigrants might, however, still be very different from the native Dutch population in cultural, social, and economic terms. Neighborhoods with high shares of third generation immigrants might be considered as ethnically diverse - or even ethnic concentration - neighborhoods by other residents, thereby affecting the neighborhood preferences and/or residential mobility behavior of other ethnic groups (cf. Schelling, 1971). Processes of 'White flight' or 'White avoidance' in response to the residential mobility behavior of third generation immigrants might have additional effects on ethnic segregation (Crowder & South, 2008; South & Crowder, 1998).

The main aim of the present study is to explore the extent to which the definition of ethnicity influences conclusions about ethnic segregation by focusing on the residential patterns of third generation immigrants in the 31 largest Dutch cities between 1999 and 2013. The analysis consists of two parts: first, aggregate statistics of the share of third generation immigrants in different types of neighborhoods are analyzed which shows that ethnic concentration neighborhoods will most likely see the largest increase in the share of third generation immigrants over time. Second, I focused on third generation home-leavers and their spatial mobility behavior which contributes to our understanding of intergenerational processes of socio-spatial assimilation. My findings show that third generation immigrants continue to be overrepresented in ethnic concentration neighborhoods which raises questions about the assumed unidirectional process of socio-spatial assimilation. Ethnic segregation seems to be the continuing trend among third generation immigrants. The official definition of ethnicity in the Netherlands, which assumes socio-spatial assimilation, seems to mask the persistent intergenerational continuity of ethnic segregation.

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## § 6.2 Ethnic segregation and socio-spatial assimilation

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A substantial body of research has been devoted to document and explain processes of ethnic segregation. Many researchers view ethnic segregation as being closely related to social, economic, and cultural assimilation into society. According to the spatial assimilation model, ethnic segregation is a logical phenomenon after recent immigration. New immigrants often live in neighborhoods with other co-ethnics for mutual support (Massey, 1985). Research has shown that these ethnic concentrations after recent immigration are beneficial in terms of social networks and access to resources that contribute to the success of the second generation (e.g. Portes & Bach, 1985; Portes & Jensen, 1989). As the second generation is likely to have a greater assimilation into the host society, they are also more likely to convert their cultural capital and socioeconomic accomplishments into improved residential opportunities (Gordon, 1964; Massey & Mullen, 1984; Massey, 1985). This process of socio-spatial assimilation is reflected in ethnic residential behavior that is similar to that of the native population, demonstrating moves away from ethnic concentrations and into more mixed neighborhoods (e.g. Alba & Logan, 1993; Bolt & Van Kempen, 2010a; Sabater, 2010; Simpson & Finney, 2009). Studies have shown that ethnic segregation tends to decrease over the course of generations, which has been ascribed to processes of socio-spatial assimilation (Bolt & Van Kempen, 2010a; Simpson et al., 2008; Simpson & Finney, 2009). However, not all second generation immigrants have been able to experience upward socioeconomic

mobility, limiting their opportunities to leave concentration neighborhoods (Bolt & Van Kempen, 2010a). Critics of the assimilation model have argued that social assimilation is not a unidirectional process and that assimilation can also be segmented (Jensen & Chitose, 1994; Portes & Zhou, 1993). From the perspective of segmented assimilation, immigrants can experience assimilation and upward socioeconomic mobility; but also downward mobility as a result of little success in education or on the labor market; or upward socioeconomic mobility while continuing to live in ethnic concentration areas (Jensen & Chitose 1994).

Studies on the spatial assimilation of second generation immigrants find a strong intergenerational continuity in neighborhood choice: compared to their native peers, second generation immigrants continue to be more likely to move into and less likely to leave ethnic concentration neighborhoods (Bolt & Van Kempen, 2010a; Zorlu & Mulder, 2010). While it is often assumed that the persistent existence of ethnic concentrations is the result of a lack of social and economic mobility, it seems that socioeconomic status only offers a partial explanation for the neighborhood choices of second generation immigrants (cf. Galster, 1988; 1989; Musterd, 2005; Zorlu & Mulder, 2010). Researchers have argued that self-segregation could be an important explanation as young people from an immigrant background might prefer to live close to family or other members from the same ethnic background, because of strong social networks (Philips et al., 2007). Another important explanation is the availability of housing and/or access to the housing market (Bolt et al., 2008). Many studies have documented the persistent discrimination of immigrants that constrains the housing choices of ethnic minority groups (Aalbers, 2013; Philips, 2006). In addition, access to and the location of social or public housing can play a large role in reproducing ethnic segregation over generations (Musterd, 2005).

There is however some evidence of spatial assimilation over the course of generations. Compared to the first generation, second generations immigrants are less likely to move to concentration neighborhoods (Bolt & Van Kempen, 2010a; Kleinepiet & Van Ham, 2017; Zorlu & Mulder, 2010). This gives reason to assume that this trend will continue among the third generation. In many European countries, the third generation is, however, still relatively young as large-scale immigration took place after the Second World War. In the Netherlands, first and second generation Moroccans, Turks, Antilleans and Surinamese comprise almost 1.3 million individuals, while the relatively young third generation consists only of some 95,000 individuals under the age of 50, or comprising 0.6% of the population in 2016 (Statistics Netherlands, 2017). The young age structure of the third generation implies that many of them are still living in the parental home. As such, it is unclear to what extent they display processes of socio-spatial assimilation. However, research has provided some insight into the degree of socioeconomic assimilation of the third generation. Studies on early educational outcomes of the third generation show

significant differences between the third generation and their Dutch peers. Although third generation immigrants do better in school compared to the first and second generation (Statistics Netherlands, 2016b), they are still more likely to drop out of school than their Dutch peers (Goedhuys et al., 2010).

There are also important differences between third generation individuals from different ethnic backgrounds. Of all ethnic groups, third generation children with a Moroccan parentage perform the poorest in school, followed by third generation children from a Turkish background (Statistics Netherlands, 2016b). Third generation children with a Surinamese parentage perform better than third generation Moroccans and Turks, while third generation Antilleans perform the best in school compared to all other ethnic groups (Statistics Netherlands, 2016b). In addition, third generation Antilleans show the largest increase in school performance compared to the first and second generation (Statistics Netherlands, 2016a).

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### § 6.3 The official definition of ethnicity

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Definitions of ethnicity are used to classify people into ethnic groups based on subcultures with a common place of origin, language, ancestry, and cultural traditions (Stillwell & Van Ham, 2010). For newly arrived immigrants it is often relatively easy to distinguish between individuals and define different ethnic groups. However, over generations, this has become increasingly complex as a result of ethnic intermarriage and intergenerational change. In the Dutch context, ethnicity is based on the country of birth of the parents. A person is considered to be an immigrant when he/she has at least one parent born abroad. This definition distinguishes between those born abroad themselves (first generation) and those born in the Netherlands (second generation) (Statistics Netherlands, 2016b). Third generation immigrants who are born in the Netherlands and whose parents are Dutch-born are considered to be of Dutch birth or ancestry. Although third generation immigrants have one or more immigrant grandparents, they are officially considered to be native Dutch (Statistics Netherlands, 2016c). Behind this definition lies the assumption that these third generation immigrants are no longer substantially different from the native Dutch in social, cultural, and economic terms (Kooiman et al., 2012).

The use of this definition of ethnicity however complicates research on socio-spatial assimilation. By classifying third generation immigrants as native Dutch, they tend to disappear in official statistics (cf. Kesler & Schwartzman, 2015). This has consequences

for studies on socio-spatial assimilation and ethnic segregation. When second generation immigrants have children, the share of immigrants in a neighborhood decreases. Similarly, as coded by the official statistics, the in-migration of third generation immigrants into an area demarked as being 'ethnically concentrated' will have an apparent deconcentrating effect. At the moment, these effects are limited because the third generation is relatively small and still very young. However, as the size of the third generation grows over time, these effects will increase and new concentrations of third generation, or later generations, immigrants will be easily overlooked. Although it is assumed that third generation immigrants are assimilated into Dutch society, in the current literature, it is unclear to what extent this is the case. Third generation immigrants might still be very different from the native Dutch population. According to the segmented assimilation hypothesis, a lack of socioeconomic assimilation has an effect on spatial assimilation, resulting in continued segregation and residence in ethnic concentration neighborhoods – which, in turn, further complicates socioeconomic assimilation (Massey & Denton, 1993; Zhou, 1997). However, even when third generation immigrants are similar to the native population in socioeconomic terms, they might still identify with their own ethnic group which might lead to processes of self-segregation. Moreover, natives and other ethnic groups might not be indifferent to the residential behavior of third generation immigrants (e.g. Crowder et al., 2012; Kaufmann & Harris, 2015; Schelling, 1971). Neighborhoods with high shares of third generation immigrants might be considered as ethnically diverse - or even ethnic concentration - neighborhoods by other residents, thereby affecting the residential preferences of natives (Van Ham & Feijten, 2008). The in-migration of third generation immigrants might therefore stimulate processes of 'White flight' (e.g. Crowder & South, 2008; Schelling, 1971). Ethnic heterogeneity in neighborhoods stimulates the out-mobility of the native population to more 'White' neighborhoods (Clark & Coulter, 2015; Kaufmann & Harris, 2015). Alternatively, ethnically diverse neighborhoods might cause the native population to avoid such neighborhoods (Clark, 1992; Quillian, 2002). As such, the residential mobility of third generation immigrants can have important consequences for ethnic segregation.

The use of the official definition of ethnicity also has important consequences for cross-country comparative research. Many European countries rely on the country of origin as the main indicator of ethnicity, which implies that identifying later generations is difficult, if not impossible (Kesler & Schwartzman, 2015). As a result, studies on ethnic segregation in these countries might come to very different conclusions when compared to countries that use census data using self-defined ethnicity as a definition. While both definitions – i.e. country of origin and self-defined ethnicity – are faced with the challenge of selective disappearance of later generations of immigrants in official statistics (see Kesler & Schwartzman, 2015 on the issue of self-defined ethnicity), there is little consensus in the existing literature on the consequences of this selective disappearance.

However, it is likely that it leads to an underestimation of ethnic minority disadvantage (Kesler & Schwartzman, 2015). Methodologically, analyzing third generation ethnic minority socio-spatial assimilation will contribute to our understanding of how to use or interpret statistics on group inequality.

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## § 6.4 Data and methods

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This study used longitudinal register data from the System of Social statistical Datasets (SSD) from Statistics Netherlands providing data on the full Dutch population from 1999 to 2013. I focused on the four largest non-western migrant groups in the Netherlands: Moroccans, Turks, Surinamese, and Antilleans. Third generation immigrants are identified based on the country of origin of the grandparents. I selected all third generation immigrants who lived with their parents in 1999 and had left the parental home at any point in the following years (2000-2013), giving 1,593 third generation home-leavers between the ages 15 and 35. Because of the disproportionately small group of third generation home leavers, a 5% random sample of their native Dutch peers has been selected as a control group (N = 16,553).

Neighborhoods are operationalized using 500 by 500 meter grids. The use of 500 by 500m grids ensured the comparability of geographical units, keeping geographical boundaries constant over time and allowing for a detailed analysis on a low spatial scale. I focused on the share of the four largest non-western immigrant groups relative to the total population in a neighborhood. They have been classified into five groups based on the share of first and second generation immigrants, as identified in a previous study on empirical trajectories of the ethnic population composition in the Netherlands (Zwiers et al., 2018a). Using this classification scheme, the first group consists of neighborhoods with less than 5% immigrants; the second where the immigrant population is between 5 and 15%; the third neighborhoods with 15 to 25% immigrants; the fourth of neighborhoods with 25 to 35% immigrants; and the fifth where the immigrant population is more than 35%. Neighborhoods in this last group are defined as ethnic concentration neighborhoods. Neighborhoods with less than 10 residents have been excluded from the analyses for privacy reasons. I focused on the 31 largest cities in the Netherlands, leading to a total of 6,355 neighborhoods, and an average population of 895 in 2013.

Two binary logistic regression models with cluster-corrected standard errors have been estimated to analyze the probability of moving to an ethnic concentration neighborhood after leaving the parental home. Cluster-corrected standard errors account for the

possible unobserved correlations between individuals that originate from similar neighborhoods. Model 1 includes only the dummy variables for the ethnic background of the parental home-leavers. Because of the relatively small numbers of third generation immigrants, Moroccans and Turks, and Surinamese and Antilleans, have been grouped together. Previous research has argued that the socioeconomic position and historical background of Moroccans and Turks is similar, as is those of the Surinamese and Antilleans (e.g. Zorlu & Van Gaalen, 2016). In Model 2 several socioeconomic control variables have been added to assess the extent to which the association between ethnicity and residential mobility can be explained by socioeconomic assimilation. I controlled for the level of ethnic concentration in the parental neighborhood, as previous work has shown that there is a strong correlation between the characteristics of the parental neighborhood and the characteristics of the destination neighborhood of home-leavers (De Vuijst et al., 2017; Van Ham et al., 2014). As socio-spatial assimilation is strongly related to socioeconomic status (e.g. Bolt & Van Kempen, 2010a), I controlled for the parental income in the year before leaving home and individual income in the first year after having left the parental home. Income was defined as the sum of incomes from wages, benefits, and student scholarships. A dummy variable for enrolment in higher vocational training and university has been included. I further controlled for relationship status (i.e. having a partner or being single), gender, age, and the year of home leaving. An overview of the descriptive statistics is presented in Table 6.3.

The comparison of changes in the coefficients across nested models is not as straightforward in non-linear models as it is in linear models. The reason for this is that the uncontrolled and controlled coefficients can differ not just because of confounding but also because of a rescaling of the model (for details, see Karlson et al., 2010). I therefore use the Karlson-Holm-Breen (KHB) method to analyze how much of the effect of ethnicity on the probability of moving to an ethnic concentration neighborhood can be explained by the socioeconomic control variables. The analyses have been reproduced on different subsets of the data. All analyses yield similar results.

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## § 6.5 Results

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Table 6.1 presents the share of ethnic minorities by generation in the different neighborhood groups in 1999 and 2013. First generation immigrants tend to be overrepresented in ethnic concentration neighborhoods (groups 4 and 5).



TABLE 6.1 Share of immigrants by neighborhood group, 1999 and 2013

	GROUP 1 ( < 5% immigrants)		GROUP 2 (5-15% immigrants)		GROUP 3 (15-25% immigrants)		GROUP 4 (25-35% immigrants)		GROUP 5 ( > 35% immigrants)	
	1999	2013	1999	2013	1999	2013	1999	2013	1999	2013
<b>Percentage first generation</b>	0.7 (1.5)	0.6 (0.8)	3.9 (2.8)	4.4 (1.8)	8.7 (4.6)	9.9 (1.9)	13.3 (6.6)	15.1 (2.5)	22.8 (9.8)	24.3 (5.7)
<b>Percentage second generation</b>	0.5 (1.1)	0.7 (0.9)	2.6 (1.9)	4.5 (1.8)	5.7 (2.9)	9.6 (1.9)	8.4 (3.8)	14.5 (2.4)	14.1 (5.7)	22.5 (5.8)
<b>Percentage third generation</b>	0.1 (0.4)	0.2 (0.5)	0.2 (0.5)	0.6 (0.8)	0.3 (0.3)	0.8 (0.6)	0.4 (0.4)	1.2 (1.1)	0.6 (0.7)	1.4 (1.0)
<b>Average number of residents</b>	465 (628)	488 (654)	1,143 (919)	1,218 (919)	1,330 (989)	1,408 (975)	1,611 (1,301)	1,672 (1,258)	2,168 (1,446)	2,185 (1,399)
<b>N</b>	3,817		1,483		498		250		307	

Note: Standard deviations in parentheses

Source: System of Social statistical Datasets (SSD)

The distribution of first generation immigrants between the different neighborhood groups is, however, relatively stable over time. The share of second generation immigrants increased substantially in the ethnic concentration neighborhoods between 1999 and 2013. Neighborhoods in group 4 saw an average increase of second generation immigrants of 6.1%, while neighborhoods in group 5 experienced an average increase of 8.4%. This increase can be explained by the fact that the second generation continues to grow as they are still relatively young and there is a lot of endogamous partnership between first and second generation immigrants, which means that their children are also defined as second generation immigrants (cf. Statistics Netherlands, 2016a). As third generation immigrants are a relatively small group, they tend to comprise a very small share of the total population in the different neighborhood groups. Nevertheless, third generation immigrants tend to display the same trend as the second generation: the share of third generation immigrants increases the most in ethnic concentration neighborhoods in groups 4 and 5.

These results seem to indicate that the distribution of third generation immigrants resembles the distribution of second generation immigrants, suggesting that, as the third generation grows, they will be overrepresented in ethnic concentration neighborhoods. However, a possible explanation for this finding is the fact that the majority of the third generation are under the age of 18 (Statistics Netherlands, 2016c), meaning that many of them are most likely still living in the parental home. The increase in the share of third generation immigrants in ethnic concentration neighborhoods could thus simply be the result of natural increase, i.e. childbirth among the second generation (see also Zwiers et al., 2018a).

TABLE 6.2 Percentage third generation home leavers across destination neighborhoods

	GROUP 1 (< 5% immigrants)	GROUP 2 (5-15% immigrants)	GROUP 3 (15-25% immigrants)	GROUP 4 (25-35% immigrants)	GROUP 5 (>35% immigrants)
<b>Moroccans</b>	9.4	25.0	25.0	9.4	31.3
<b>Turks</b>	9.7	25.0	20.2	12.9	32.4
<b>Surinamese</b>	20.3	32.7	16.9	12.1	18.0
<b>Antilleans</b>	28.0	35.2	13.7	8.8	14.3
<b>N</b>	<b>317</b>	<b>507</b>	<b>270</b>	<b>184</b>	<b>315</b>

Source: System of Social statistical Datasets (SSD)

To better understand the spatial distribution of third generation immigrants, I therefore focus on the residential mobility behavior of a group of third generation parental home-leavers. Table 6.2 presents the destination neighborhood types of third generation home-leavers. More than one third of all Moroccan and Turkish home-leavers, 40.7% and 45.3% respectively, move to ethnic concentration neighborhoods in groups 4 and 5. Only 9.4% of Moroccan and 9.7% of Turkish home-leavers move to the more native-dense neighborhoods in group 1. However, both groups display mobility into more mixed neighborhoods: 50.0% of Moroccan home-leavers move into neighborhoods in groups 2 and 3 compared to 45.2% of Turkish home-leavers. Surinamese and Antillean home-leavers more often move into neighborhoods in group 1: 20.3% Surinamese and 28.0% Antillean third generation immigrants move into native-dense neighborhoods. Similar to Moroccan and Turkish home-leavers, Surinamese and Antilleans also display mobility into mixed neighborhoods in groups 2 and 3: 49.6% and 48.9% respectively. However, Surinamese (30.1%) and Antillean (23.1%) home leavers move less often to ethnic concentration neighborhoods in groups 4 and 5.

Table 6.3 presents the means of the study variables by ethnic group. One third of Moroccan (31%) and Turkish (32%) home-leavers have moved to an ethnic concentration neighborhood. The share of Surinamese and Antillean home-leavers that have moved to an ethnic concentration neighborhood is much lower: 18% and 14% respectively. Although it is assumed that third generation immigrants are no longer different from their native Dutch peers, only 6% of the natives has moved to an ethnic concentration neighborhood. Similarly, Moroccans and Turks more often grew up in ethnic concentration neighborhoods in groups 4 and 5: 53% and 43% compared to 27% of Surinamese, 18% Antillean, and 9% Dutch home-leavers. Surinamese and Antillean home-leavers more often originate from more native-dense neighborhoods in group 1, 28% and 32%, compared to only 6% of the Moroccan and 7% of the Turkish home leavers. 47% of the native Dutch grew up in native-dense neighborhoods.

TABLE 6.3 Means of study variables by ethnic group

	MOROCCANS	TURKS	SURINAMESE	ANTILLEANS	DUTCH
Concentration neighborhood 5	0.31	0.32	0.18	0.14	0.06
Origin neighborhood 5	0.28	0.29	0.17	0.11	0.04
Origin neighborhood 4	0.25	0.14	0.10	0.07	0.05
Origin neighborhood 3	0.13	0.22	0.14	0.13	0.10
Origin neighborhood 2	0.28	0.28	0.32	0.36	0.34
Origin neighborhood 1	0.06	0.07	0.28	0.32	0.47
Parental income	36,648 (26,166)	37,825 (29,384)	46,792 (39,179)	55,234 (70,664)	49,989 (38,066)
Income	8,322 (6,306)	8,008 (6,439)	12,410 (10,159)	12,067 (9,604)	17,098 (11,529)
Student	0.31	0.51	0.44	0.38	0.30
Single	0.69	0.75	0.54	0.61	0.52
Partner	0.16	0.12	0.32	0.29	0.41
Year of home leaving	2010 (2.33)	2010 (2.17)	2007 (4.01)	2008 (3.83)	2006 (4.04)
Age	20 (1.73)	19 (1.76)	22 (3.20)	21 (2.90)	23 (3.52)
Male	0.50	0.44	0.47	0.43	0.51
<b>N</b>	<b>32</b>	<b>248</b>	<b>1,006</b>	<b>307</b>	<b>16,553</b>

Note: Standard deviations in parentheses

Standard deviations not reported for dichotomous variables

Source: System of Social statistical Datasets (SSD)

The parental income of Moroccan and Turkish home-leavers is generally lower than that of Surinamese and Antillean home-leavers: on average, 36,648 and 37,825 compared to 46,792 and 55,234 respectively. This finding is in line with other studies that have concluded that Moroccan and Turkish immigrants have a lower socioeconomic status than Surinamese and Antillean immigrants (Huijnk & Andriessen, 2016). In the same vein, the individual income of Moroccan and Turkish home-leavers is generally lower than that of Surinamese and Antillean home-leavers: 8,322 and 8,008 compared to 12,410 and 12,067. The individual income of native Dutch home-leavers is much higher: 17,098 on average.

The results from the logistic regression models with cluster corrected standard errors are presented in Table 6.4. Model 1 presents the main effects for the two ethnic groups. Third generation Moroccan and Turkish home-leavers are 6.89 times more likely to move to an ethnic concentration neighborhood than natives ( $b = 1.93$ ,  $p < 0.001$ ). Surinamese and Antillean home leavers are 3.01 times more likely to move to an ethnic concentration neighborhood than natives ( $b = 1.11$ ,  $p < 0.001$ ). The socioeconomic control variables have been added to Model 2. Controlling for several socioeconomic characteristics reduced the likelihood to move to an ethnic concentration neighborhood for both ethnic groups, although they are still significantly more likely to move to an ethnic concentration neighborhood than natives, 2.03 and 1.58 times respectively. Individual income has a significantly negative effect on the likelihood to move to an ethnic concentration neighborhood ( $b = -0.11$ ,  $p < 0.01$ ). Spatial assimilation seems to be dependent on socio-economic status: a higher income is generally associated with moves into more ethnically mixed or native neighborhoods (e.g. Bolt & Van Kempen, 2010a; Catney & Simpson, 2010). The effect of parental income is not significant, which can be explained by the strong effect of the level of ethnic concentration in the parental neighborhood. As the level of ethnic concentration often correlates with income, the effect of the parental income is likely mediated by the level of ethnic concentration. The share of first and second generation immigrants in the parental neighborhood appears to be the most important predictor: the higher the share of ethnic minorities in the parental neighborhood the more likely an individual is to move to an ethnic concentration neighborhood. Individuals from a parental neighborhood with a high level of ethnic concentration (group 5) are 27.40 times more likely to move to an ethnic concentration neighborhood compared to individuals from more native-dense neighborhoods (group 1) ( $b = 3.31$ ,  $p < 0.001$ ). This finding is in line with other studies that found that the characteristics of the parental neighborhood are an important predictor for the type of neighborhoods that individuals end up in after leaving the parental home (De Vuijst et al., 2017; van Ham et al., 2014).

I used the KHB method (Karlson et al., 2010) to assess the influence of the socioeconomic control variables on the changes in the ethnic group differences between Model 1 and 2. I found that individual income and parental income in addition to the level of ethnic concentration in the parental neighborhood significantly reduced the ethnic differences in the likelihood of moving to an ethnic concentration neighborhood. Individual income and parental income had a significant but marginal effect in reducing ethnic differences (around 1%), however, the level of ethnic concentration in the parental neighborhood (neighborhood groups 4 and 5) reduced the effect of an ethnic parentage for Moroccan and Turks by 55% and for Surinamese and Antilleans by 46%. The level of ethnic concentration in the parental neighborhood is thus by far the most important mediator.

TABLE 6.4 Results from the logistic regression models with cluster corrected standard errors

	MODEL 1		MODEL 2	
	b	OR	b	OR
Moroccans Turks	1.93***	6.89	0.71***	2.03
Surinamese Antilleans (ref = natives)	1.11***	3.01	0.45***	1.58
Origin neighborhood 5			3.31***	27.40
Origin neighborhood 4			1.78***	5.95
Origin neighborhood 3			1.15***	3.16
Origin neighborhood 2 (ref = origin neighborhood 1)			0.52***	1.69
Parental income (log)			0.05	1.05
Income (log)			-0.11**	0.90
Student			0.14	1.14
Single			0.05	1.05
Partner (ref = other)			0.12	1.13
Year of home leaving			0.00	1.00
Age			-0.04***	0.96
Male (ref = female)			0.09	1.09
Constant	-2.68***	0.07	-9.53	0.00
Wald chi <sup>2</sup>	278.48***		1494.43***	
Pseudo R <sup>2</sup>	0.03		0.18	
N	18,143		18,143	

Note = \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Source: System of Social statistical Datasets (SSD)

## § 6.6 Discussion and conclusion

The socio-spatial assimilation of ethnic minorities is considered crucial for the development of inclusive, diverse societies. A large body of research assumes that socio-spatial assimilation develops over the course of generations, suggesting that later generations will no longer be substantially different from the native population, illustrated by a similar socioeconomic status and similar residential mobility behavior. This assumption of socio-spatial assimilation is also reflected in the official definition of ethnicity: third generation immigrants who are Dutch-born and whose parents are Dutch-born, but who have one or more grandparents from a migrant background, are

defined as native Dutch. The present study aimed to analyze the extent to which this third generation displays socio-spatial assimilation and to assess its outcomes in terms of ethnic segregation.

In the analysis, I find that third generation home leavers continue to 'lag behind' in socioeconomic status compared to their native Dutch peers. Although the parental income and individual income of Surinamese and Antillean home-leavers is higher than that of Moroccan and Turkish home-leavers, the parental income and individual income of native Dutch home-leavers is generally higher compared to all four ethnic groups. In addition, home-leavers from an immigrant background more often grew up in ethnically concentrated neighborhoods compared to their native peers, with Moroccan and Turkish home-leavers most often originating from ethnic concentration neighborhoods. Taking into account these socioeconomic differences, I find that third generation immigrants continue to be more likely to move to ethnic concentration neighborhoods, with Moroccan and Turkish home-leavers showing the highest likelihood. This finding is in line with studies on second generation immigrants that display a similar pattern (Bolt & Van Kempen, 2010a; Kleinepier & Van Ham, 2017; Zorlu & Mulder, 2010). More importantly, these findings raise questions about the socio-spatial assimilation of third generation immigrants as they continue to be more socioeconomically disadvantaged compared to their native Dutch peers. In addition, third generation immigrants might still be very different from the native Dutch culturally, which might be an explanation for why they are more likely to move into ethnic concentration neighborhoods after controlling for socioeconomic differences. Third generation immigrants might very much identify with their ethnic background, or might prefer to live close to family and other members from the ethnic community.

Third generation immigrants are officially defined as native Dutch in the official statistics. The discussion of who is considered to be an immigrant and who is not is often controversial, however, as a result of the current definition third generation immigrants disappear in official statistics. This is problematic as the definition falsely assumes socio-spatial assimilation when the results of my analysis demonstrate that there continue to be significant socioeconomic and cultural differences between the third generation and the native population. As a result of this definition, inequalities between individuals with a migrant background will be overlooked. I find evidence for the intergenerational continuity of socio-spatial disadvantage, resulting in persistent ethnic segregation. Third generation immigrants tend to display more or less the same residential mobility behavior as the second generation, which over time, will most likely result in increasing ethnic concentrations.

The third generation is a relatively young and small group in many European countries. However, over time as the population ages, and as a result of ethnic intermarriage, this

group will continue to grow. The results from the present study suggest that there might be strong socio-spatial differences between this generation and the native population. The residential mobility behavior of the third generation is likely to have important consequences for ethnic segregation. Future research should focus on the extent to which the residential choices of third generation immigrants are the result of limited socioeconomic resources or ethnic self-segregation. In addition, researchers should focus on the behavior of the native population in terms of 'White flight' or 'wealth flight'. Ethnic segregation appears to be a persistent feature of contemporary cities which does not automatically decrease over the course of generations or as a result of socioeconomic assimilation. Rather, there appears to be a strong intergenerational path-dependence on ethnic residential mobility behavior. Growing up in ethnic concentration neighborhoods has long-lasting effects on the socio-spatial behavior of young people (see also Sharkey & Sampson, 2008; Swisher et al., 2013; De Vuijst et al., 2017; Zorlu & Mulder, 2010). Researchers should be aware that having a migrant background might continue to play an important role in group inequalities over multiple generations.

