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Haley Mcavay

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Doctorat en Sociologie

Immigrants' Spatial Incorporation in France:

Patterns and Determinants of Neighborhood and Housing Attainment

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Introduction

The concentration of ethnic and racial minorities in disadvantaged neighborhoods has become a distinctive feature of cities in contemporary Western societies. France is no exception, where disadvantaged peripheral urban areas known as the *banlieues* have come to concentrate high shares of immigrants, many of which settled in France in the wake of decolonization.¹ The segregation of immigrants and their offspring, reflected in the image of the *banlieues*, is a pervasive issue in political discourse and the media, and has garnered increasing attention since riots in these areas shook France in 2005. The *banlieues* have become synonymous with an array of social problems such as crime, high unemployment, disadvantaged school environments and dilapidated public housing units. On a more symbolical level, representations of these urban areas are charged with meanings about the failure of the French state to integrate immigrants, as well as the alleged *communautarisme*, or self-segregation, of certain minorities, perceived to be detrimental to national social cohesion (Lagrange and Oberti, 2006).

While the *banlieues* are constructed as a social problem, the ethnoracial dimensions of spatial inequalities in France are poorly understood and rarely made explicit. This blind spot is concurrent with and perpetuated by the predominance of the French Republican tradition (*tradition républicaine*) and its specific model of social integration. Unlike multicultural models, which promote cultural diversity within the nation-state and recognize ethnic/racial minorities, French Republicanism does not acknowledge racial or ethnic distinctions - whether as official categories, subjective identities, or grounds for discrimination or claims-making (Favell, 2016). Rather, France's model puts strong emphasis on the power of citizenship as a motor of social integration. Immigrants are considered to become

¹Other commonly used synonyms of these urban areas in France are *les quartiers sensibles*, *les quartiers*, *les cités*.

members of the nation through a process of acculturation by which they successfully incorporate French values while shedding any markers of cultural difference or ethnic/racial distinctiveness. Within the Republican model, recognizing race and ethnicity is thought to impede the integration process and foster social division.

The invisibility of race/ethnicity, or the “colorblindness” (Sabbagh and Peer, 2008) of French Republicanism, has concrete repercussions for conducting empirical research on the ethnoracial composition of France’s urban neighborhoods. Neither the census nor national-level surveys in France collect statistics on race/ethnicity (Simon, 2008). In light of the French Republican emphasis on citizenship, the primary categorical distinction deemed relevant is that between French citizens and foreigners. Most data sources, including the census, also include information about immigrant status, making it possible to distinguish French-born citizens from immigrants who have been naturalized French. In more infrequent cases, the national origin of immigrants is available. The possibility of identifying second generation immigrants in national-level surveys raises further complications. As French-born citizens, descendants of immigrants are not recognized as an official category. The debate on ethnic statistics in France - whether or not ethnic/racial categories should be measured, and what kinds of measurements should be used - is ongoing and highly controversial, driven at once by the colorblind, integrationist stance of the Republican tradition as well as a conviction among some scholars and politicians that creating categorical distinctions “makes” race and racism in French society (Simon, 2008; Sabbagh and Peer, 2008). Hence, the lack of data to capture these categories deeply hinders the ability to investigate forms of ethnoracial inequality.

Another impediment to recognizing the ethnoracial dimensions of urban segregation in France lies in the assumption, common within the French social sciences, that spatial inequalities in France are rooted predominately in socioeconomic mechanisms. This lens of interpretation, which privileges class-based readings of inequalities, is linked to a dominant tradition within French sociology that tends to downplay the legitimacy of ethnic and racial stratification as a field of study. The predominant attention granted to hierarchies shaped by class rather than race/ethnicity stems again in part from the Republican framework, but has also been attributed by scholars to the centrality of the

Bourdieuian and Marxist heritage in French sociology (Amiriaux and Simon, 2006; Safi, 2013). Within social science research, one implication of this strong emphasis on class inequalities, combined with the difficulty in using race/ethnicity as analytical categories, is that the earliest and most developed studies into spatial inequalities, whether qualitative or quantitative, explore the segregation of socioeconomic or professional groups (Tabard, 1993; Oberti and Prêteceille, 2004; Maurin, 2004). In the political sphere, the greater salience of the socioeconomic focus on segregation has left the French state reticent in acknowledging the role of racial forms of exclusion and discrimination in sustaining spatial inequalities.

Yet, despite the obscurity surrounding ethnoracial spatial inequalities in France, popular representations of the *banlieues* are infused with racial meanings, such that terms describing disadvantaged youth living in the suburbs (*jeunes de cité, jeunes des quartiers, racailles*) are deeply intertwined with representations of ethnoracial minorities (Tissot and Poupeau, 2005). The emergence of the terminology of “the ghetto” in French public discourse points to a growing belief that France’s neighborhoods are racially homogeneous and that segregation is on the rise (Wacquant, 1992). Tropes of cultural racism in reference to these urban areas are pervasive throughout the political spectrum and are often rooted in the stigmatization of Muslims. According to these narratives, the problems in the *banlieues* are rooted in minorities’ refusal to assimilate French culture and secular values (*laïcité*), reflected in their alleged self-segregation in neighborhoods. Accusations of *communautarisme* are not directed at all immigrant groups, but primarily target minorities who, by their perceived cultural, religious or racial distinctiveness, are deemed to be the least “assimilable” in French society. In this discourse, *laïcité* is tightly interwoven with French identity and is interpreted by some social scientists as a symbolic foundation of whiteness in French society through which ethnoracial boundaries are forged (Fassin and Fassin, 2013; Fassin, 2014).

Students of spatial inequalities in France are thus confronted with a paradox. On the one hand, the visibility of minority segregation as a social problem is growing, along with the widespread association between these urban areas and ethnoracial minorities. On the other, empirical research about the locational and housing outcomes of immigrants is

relatively underdeveloped. At the same time, issues about segregation and the *banlieues*, urban disadvantage, and immigration are widely discussed topics within the French social sciences. Yet, empirical investigation into these issues tends to be scattered across contrasting, mostly qualitative approaches, and are only peripheral to other more central objects of inquiry.

Three major empirical contributions to these questions in France come from urban sociology, the sociology of education, and the political science literature on urban and housing policy. All of these veins of research share a predominately qualitative approach. Heavily influenced by the First Chicago School, French urban sociology is composed of a large corpus of ethnographies that seek to explore social phenomena in the *banlieues*, focusing on social structure and social relations, culture, political participation, and delinquency in local areas (Dubet and Lapeyronnie, 1992; Lapeyronnie and Courtois, 2008; Lapeyronnie, 2006; Wacquant, 2008; Kokoreff, 2008, 2003; Duprez and Kokoreff, 2000).

Within the sociology of education, empirical research into school segregation also represents an important lens through which questions of segregation and immigration have been tackled. This research explores the links between educational inequalities and school segregation, with an emphasis on the role of educational policies, zoning policies and school choice strategies of families in shaping the socioeconomic and ethnoracial composition of school environments, as well as the broader urban environments in which they are embedded. This literature also investigates how segregated school/urban environments impact individual educational outcomes (Oberti, 2007, 2005; Oberti et al., 2012; Van Zanten, 2001, 2003; Zanten, 1997; Broccolichi and Zanten, 2000; Van Zanten, 2015).

Finally, a corpus of studies within the field of political science has investigated urban and housing policies and their consequences for socioeconomic and ethnoracial segregation. The focus within this strain of research is on urban renewal policies, social mix policies and housing allocation practices within the public housing sector, that directly or indirectly impact immigrants' locational outcomes in urban areas (Tissot, 2005, 2013; Bourgeois, 2013; Simon et al., 2001; Kirszbaum, 1999; Epstein, 2013; Epstein and Kirszbaum, 2003; Tanter and Toubon, 1999; Desage et al., 2014; Kirszbaum, 2015; Sala Pala, 2005).

While this literature provides important insights for understanding urban inequalities

in France, it does not directly address the patterns and mechanisms of immigrants' spatial outcomes. Studies directly focusing on the segregation of immigrants using a quantitative approach do not emerge until the mid-2000s (Safi, 2009; Prêteceille, 2009; Verdugo, 2011; Rathelot, 2012). Using municipality-level data from multiple census dates, this research examines the degree of spatial separation of immigrants of different origins from French natives², as well as the evolution of segregation over time (Safi, 2009; Prêteceille, 2009; Pan Ké Shon and Verdugo, 2015; Pan Ké Shon, 2009). A few quantitative studies have also examined the question of immigrants' mobility out of cities or neighborhoods with high levels of socioeconomic disadvantage or high shares of immigrants (Pan Ké Shon, 2010; Rathelot and Safi, 2014), or the link between social housing and locational attainment (Fougère et al., 2013; Verdugo, 2011). Within a context of intense, yet often empirically unfounded political debate on the severity of segregation in the *banlieues*, these studies have been fundamental in providing the first quantitative portrait of immigrants' segregation. At the same time, these initial findings have given rise to new debates among scholars.

The first point of debate concerns the intensity of segregation compared to forms of spatial inequalities found in the United States, and whether France's neighborhoods can be qualified as "ghettos". The above studies concur on the fact that the levels of segregation of non-European immigrants, though higher than those of European immigrants, are considerably lower than those of the most segregated racial minorities in the U.S. Nonetheless, the evidence points to the fact that non-European immigrants are at a greater risk of living separately from the majority, suggesting that race/ethnicity may be salient in shaping urban dynamics. The second aspect of controversy lies in the question of the increase or decline in segregation over time. Still, all in all, the absence of data measuring ethnic/racial categories makes these debates difficult to resolve. Since the only quantitative studies that can capture trends in ethnoracial segregation examine immigrants only, not including second generation immigrants, levels of segregation shown in existing empirical research are likely underestimated.

²French natives are individuals who have French citizenship at birth. They are distinguished from immigrants, officially defined as an individual born abroad without French citizenship at birth. Further detail on these categorical distinctions is provided in Chapter 2.

Interestingly, these two points of debate in France strike at the core of broader theoretical questions that have shaped U.S.-based research into immigrants' spatial outcomes: Are immigrants on the road to spatial incorporation? Or do dynamics related to race/ethnicity structure the spatial opportunities open to minorities? Unlike in France, where these questions have emerged only recently, investigating the locational outcomes of immigrants and ethnic/racial minorities has been central to the very development of sociology as a discipline in the U.S. Empirical studies of immigrants' assimilation - and the spatial dimensions of this process in particular - were the building blocks of the First Chicago School and the lens by which early sociologists engaged with fundamental questions related to integration and socialization. In addition to producing major empirical studies on immigrants' incorporation, the First Chicago School sociologists also forged the first general theory of immigrant incorporation and urban segregation. The spatial assimilation theory, which remains the predominant paradigm in the field, describes the gradual process by which immigrants, through acculturation and social mobility, are able to achieve similar spatial outcomes to the majority (Massey and Denton, 1985; Iceland, 2009; Park and Burgess, 1921). Empirical findings from the U.S. over the years have provided evidence in favor of spatial assimilation dynamics, but have also revealed distinct patterns of spatial outcomes by ethnic/racial groups. In particular, the persistent segregation and spatial disadvantage of African Americans has helped push to the forefront alternative theoretical frameworks, such as the place stratification perspective, in order to better explain ethnic/racial stratification in spatial outcomes.

In another strain of primarily U.S.-based sociological research, the question of segregation and spatial inequalities has been addressed within social stratification theory. In this vein of the literature, space is considered to play a key role in inequality production alongside, and in interaction with, race, class and gender. Space is significant because it involves basic processes by which social inequalities are produced and reproduced (Massey, 2007). Since resources are distributed in space, where one lives determines access to housing, schools, employment, and various other forms of economic, social and cultural capital (Logan and Molotch, 1987; Sampson, 2012). The notion that spatial inequalities objectively impact individuals' life chances and consolidate disparities in other spheres of

social life has been developed within the neighborhood effects research, a perspective at the crossroads of the social stratification and urban segregation literatures (Wilson, 1987; Massey and Denton, 1993; Sampson, 2012). At the same time, where one lives participates in shaping status distinctions between groups, drawing boundaries of identity and belonging. When other dimensions of stratification - such as race and class - are grounded in space, social inequalities are compounded and result in durable positions of disadvantage or advantage for specific groups. From this perspective, ethnoracial segregation can be seen as a key factor by which the ethnoracial stratification system in general, and the meanings in which ethnoracial distinctions are grounded, are perpetuated.

In this dissertation, I adopt a new empirical approach to studying the spatial outcomes of immigrants and their offspring in France. I draw on two large nationally representative data sets, *Trajectoires et origines* (TeO, INED/INSEE 2008) and the longitudinal survey *L'échantillon démographique permanent* (EDP, INSEE 2008) which provide rare information on immigrant generations and origins. The data also combine individual-level variables with contextual characteristics measured at the neighborhood (*IRIS*) and city (*commune*) levels. Finally, EDP spans three dates of observation (1990, 1999, 2008) and provides the means to analyze individuals' spatial trajectories over time. Building on these two sources, my analysis is grounded in an *multilevel, multidimensional, longitudinal, and intergenerational* approach to immigrants' spatial incorporation.

The first main contribution lies in the multilevel nature of the data used. I apply individual-level data, merged with information about the neighborhoods and cities in which individuals live, to analyze spatial outcomes. The use of individual and contextual-level data distinguishes my approach from the majority of quantitative studies investigating the segregation of immigrants in France, in which aggregate indices are used to measure the degree of spatial separation between immigrants and French natives. Analyses relying on aggregate measures do not provide the means for thoroughly pinpointing the role of individual factors (such as migratory characteristics, occupational and employment status, education, marital and family status) and contextual factors (such as city characteristics) in shaping neighborhood outcomes. Moreover, the scale of the neighborhood is rarely used in studies on segregation in France, the majority of which rely on measures of

segregation between cities only.

The second contribution lies in providing a multidimensional view of spatial outcomes using a variety of indicators about the neighborhoods in which immigrants and their offspring live as well as housing tenure. The neighborhood characteristics used in these analyses capture both the immigrant composition (the share of immigrants and the share of co-ethnics) and the socioeconomic composition (the unemployment rate and the share of low-income households) of local areas. I explore not only whether patterns of immigrant incorporation are similar on each of these dimensions, but also the ways in which neighborhood characteristics and housing outcomes are intertwined. This type of analysis makes it possible to explore, for instance, whether the risk of living in neighborhoods with high shares of immigrants goes necessarily hand in hand with living in neighborhoods with high unemployment rates. Likewise, different articulations of housing and neighborhood types can be identified. A major aim of the analysis is thus to identify spatial patterns in their multidimensionality, and whether the ways that neighborhood and housing outcomes overlap varies across different immigrant origin groups.

The third contribution lies in the use of longitudinal data to analyze individual trajectories in neighborhoods and housing over time. Most studies on segregation in France rely on cross-sectional data, providing a picture of spatial inequalities at one point in time, or at best, comparing the evolution of aggregate measures of segregation collected at different census dates. Longitudinal data opens up more in-depth avenues for analyzing neighborhood and housing outcomes as a dynamic process, tracking individuals as they move throughout the life course. This dissertation therefore aims to explore residential mobility patterns in neighborhoods and housing over time. I further explore whether moving opens up similar opportunities for achieving improved outcomes in neighborhoods and housing for all immigrant origin groups. Further, the specific statistical modeling techniques that are possible with longitudinal data help produce more precise findings than those resulting from a cross-sectional analysis.

The final main contribution of this dissertation is to grasp the intergenerational dynamics of immigrants' incorporation in neighborhoods and housing. This first involves extending the analysis to the descendants of immigrants. As most of the quantitative

literature on segregation in France is restricted to immigrants only due to the scarcity of data on immigrants' offspring, the spatial outcomes of descendants of immigrants are poorly documented. In both data sets used in this dissertation, a category of "second generation immigrants" can be identified by referring to parental country of birth, with detailed information on national origins. Integrating second generation immigrants into the analysis provides a more thorough assessment of spatial assimilation processes in France, by exploring the extent to which second generation immigrants experience similar spatial outcomes to French majority members with no observable migrant background. Moreover, the inclusion of this category helps better assess whether spatial outcomes in France take on an ethnoracial form of inequality by exploring the salience of immigrant origin among the second generation.

Conducting an intergenerational analysis of spatial outcomes also involves exploring the extent to which individuals live in similar types of neighborhoods and housing as their parents. This type of analysis, which closely resembles classic studies on intergenerational social mobility, has only recently been transposed to the study of spatial inequalities (Sharkey, 2013, 2008; Van Ham et al., 2014; Vartanian et al., 2007), and I propose the first analysis of this kind in France. A major aim of this dissertation is thus to evaluate whether neighborhood and housing outcomes are transmitted between parents and their children, and whether these forms of intergenerational reproduction are of similar intensity for French-born citizens with no migrant background and children of immigrants of different origins.

The empirical approach outlined above dialogues with the major theoretical frameworks applied to the study of immigrants' spatial incorporation: the theory of spatial assimilation and the place stratification perspective. My analysis is also guided by insights from social stratification theory and the neighborhood effects literature. From spatial assimilation theory, I draw the hypotheses that immigrant length of stay, generation and socioeconomic status matter to immigrants' spatial outcomes. Informed by the place stratification perspective's emphasis on the importance of race/ethnicity in spatial outcomes, I pay particular attention to the role of immigrant origin. Finally, from a social stratification perspective, I look to the ways in which original location earlier in life acts

as a mechanism of spatial outcomes later in the life. In this sense, I am interested in the role of place, and its interaction with ethnicity/race, in perpetuating spatial inequalities.

The remaining chapters are organized as follows. Chapter 1 presents the main concepts and theoretical models of immigrants' spatial incorporation. I also provide a review of existing findings from diverse contexts (France, Europe and the U.S.), organized around three common empirical outlooks used in the analysis of spatial incorporation: outcomes in neighborhoods and housing, residential mobility and the intergenerational reproduction of spatial inequalities. Chapter 2 introduces the data and outlines the general families of methods used. Chapters 3, 4 and 5 are the empirical core of the dissertation and mirror the three empirical lenses presented in Chapter 2. Chapter 3 provides a descriptive, multi-dimensional overview of immigrants' spatial incorporation in neighborhoods and housing. In Chapter 4, the focus is placed residential mobility patterns and transitions over time in neighborhoods and housing. Chapter 5 is concerned with the intergenerational reproduction of neighborhood and housing outcomes between parents and their children.

Finally, the conclusion summarizes the main findings, while expanding briefly on their implications for spatial assimilation, spatial and social mobility and ethnoracial stratification in France. I finish by evoking some policy implications and avenues for future research.

Chapter 1

Theoretical Perspectives on Immigrants' Spatial Incorporation

In this chapter, I provide the theoretical foundation for the empirical analysis of immigrants' spatial incorporation in France. Section 1.1 provides some clarification about key concepts in the study of spatial inequalities. I begin by discussing definitions of the most commonly used terms within this research (segregation, the ghetto, the enclave and the underclass) and clarify why I opt to use the terminology of spatial incorporation. I also give an overview of my use of the terminology of race/ethnicity and social class. I finish by briefly delving into current debates regarding the cross-national comparability of spatial inequalities.

Drawing primarily on theoretical developments from the U.S., Section 1.2 presents the two classic frameworks applied to the spatial incorporation of immigrants: the spatial assimilation theory and the place stratification perspective. I take further theoretical insights from the neighborhood effects literature and social stratification theory concerning the role of place in producing durable spatial inequalities.

Building on these theoretical foundations, Section 1.3 provides a literature review of existing findings from France, Europe and the U.S., using the lenses of three empirical outlooks commonly used in the analysis of immigrants' spatial incorporation: outcomes in

neighborhoods and housing, residential mobility, and the intergenerational reproduction of spatial inequalities. This section clarifies what we do and do not know about immigrants' spatial incorporation from various contexts, while highlighting the methodological contributions of each approach. These three perspectives further provide the structure for the empirical contribution of this dissertation.

1.1 Conceptual Clarifications and Cross-National Comparability

1.1.1 Residential Segregation, The Ghetto, The Enclave, The Underclass

In the language of spatial inequalities, *residential segregation* is one of the most commonly used terms both within and outside of the social sciences. Residential segregation refers to the unequal distribution of social groups in space according to place of residence.¹ This definition necessitates further precision, in terms of both the scale of analysis, or the spaces across which groups are unequally distributed, as well as the kinds of social groups that are unequally distributed in space. Segregation may refer to the spatial separation of groups across areas measured at a wide variety of scales, such as regions, cities, and neighborhoods. Likewise, groups may be segregated according to a number of social and economic characteristics, such as age, income, education, gender, nationality, and race/ethnicity. Racial or ethnoracial segregation is used to refer to the unequal spatial distribution of racial/ethnic groups, while socioeconomic segregation refers to the spatial separation of groups on the basis of class, generally measured by income, occupation, education or a combination of these criteria. The segregation of immigrants implies the extent to which immigrants live apart from the majority population (Oberti and Prêteceille, 2016).

Within sociology and urban studies, the focus of inquiry has traditionally been placed on segregation at the level of the neighborhood within urban settings, or the extent to which different social groups live in different neighborhoods. The focus on neighborhoods is rooted in the urban sociology tradition of the First Chicago School, whose interest for the location of social groups within the city is one of the earliest and most productive endeavors in segregation research. The First Chicago School sociologists, led by Robert Park, conceived of neighborhoods as “natural areas” or “ecological niches” within the city that were occupied by groups with distinct social characteristics. The location of

¹Segregation does not only imply place of residence. Job segregation refers to the unequal distribution of groups across professions or companies. Segregation can also occur across schools within cities. As the object of my analysis is the spatial incorporation of immigrants, I am concerned with the notion of residential segregation.

immigrants and ethnic/racial groups was a primary concern in this early research on segregation (Park and Burgess, 1921; Park et al., 1984).

From the perspective of these early sociologists, an important implication of segregation is that it entails limited inter-group contact, and is thus decisive for social relations. In this sense, segregation has come to imply not only spatial separation, but also social distance between groups that are unequally endowed with resources. The uneven distribution of social groups in space is considered to be a reflection, translation and even producer of social difference and inequality. When levels of segregation are high, social distance and inequalities between groups are intensified (Oberti and Prêteceille, 2016).

Segregation is often accompanied by the notions of the *ghetto*, the *ethnic enclave* and the *underclass*, terms which have raised much controversy within the social sciences, whether in the U.S., France or Europe. The ghetto is used to refer to the spatial concentration of groups within urban areas that share common ethnoracial and socioeconomic characteristics, particularly neighborhoods with a majority of impoverished racial minorities (Iceland, 2009). A critical reconceptualization of the ghetto comes from Wacquant (2005), who denounces the conceptual weakness of the term as it is typically applied within sociology. According to Wacquant, though widely used, the concept lacks analytical clarity due to several misconceptions about the distinction between the ghetto, segregation and the enclave. Not all segregated areas are ghettos: while the ghetto implies notions of constraint and stigma, a place of residence that is not chosen but imposed, segregated areas concentrating affluence, for instance, result from residential choice and privilege (Wacquant, 1992, 2008). Wacquant also stresses the difference between the notion of the ghetto and the enclave. Although *ethnic enclaves* concentrate individuals of the same origin, Wacquant argues that the enclave results from a desire to maintain ethnic solidarity ties, while the ghetto embodies a form of forced confinement and exploitation. Furthermore, while the idea of isolation underlies the notion of the ghetto, ethnic enclaves tend to be more interconnected with the broader urban area.

Beyond their conceptual specificities, the notions of the ghetto and the ethnic enclave correspond to a disciplinary divide. Major contributions to the ethnic enclave research come predominately from studies on immigrants' incorporation and ethnic entrepreneur-

ship (Zhou and Logan, 1989; Portes and Zhou, 1993; Waldinger, 1993), which is relatively disconnected from research on segregation and ghettos. Segregation research tends to emphasize the negative consequences of the spatial concentration of disadvantaged racial/ethnic groups, while research on ethnic enclaves insists on the positive aspects of living in proximity to own group members. Using the empirical case of Cuban immigrants in the U.S., for instance, Portes and Zhou (1993) has shown how local urban areas provide social capital and constitute sites of resource distribution which contribute to greater socioeconomic opportunities and the overall ability of minorities to integrate into mainstream society.² Moreover, it is noteworthy that the ghetto and the enclave also take on different ethnoracial meanings: the enclave is paired with the notion of ethnicity while the ghetto more often refers to race. Indeed, the distinction between the (racialized) ghetto and the (ethnic) enclave corresponds to a key conceptual distinction between race and ethnicity, the former more often capturing the idea of a constrained or imposed external categorization, while the latter embodies notions of a chosen identity, community and belonging³ (Cornell and Hartmann, 2006).

Finally, the concept of the underclass, originally applied by Myrdal (1965) to connote the lowest class position, is a widely used concept in urban sociology to connote impoverished ghetto inhabitants. A key aspect to the notion of the underclass is that it entails specific cultural traits, values and behaviors which distinguish it from the mainstream. In light of its spatial and social/cultural dimensions, the term expresses the interconnection between spatial and social distance evoked by the sociologists of the First Chicago School. Embodied in the notion of the underclass is a range of social problems, concentrated spatially within the ghetto, such as poverty, unemployment, crime, poor health, etc.

The socioeconomic and cultural impoverishment represented in the underclass is viewed by some sociologists as a mechanism by which urban inequalities are reproduced. This idea is central to the culture of poverty argument advanced by Lewis (1966), who posits that urban poverty is cyclical and self-perpetuating due to the crippled value system found

²Even if other more recent research shows that this is not always the case. On the negative impacts of living in ethnic enclaves on immigrants' earnings, see Xie and Gough (2011).

³The concepts of race and ethnicity are discussed in greater detail in Section 1.1.2.

within the ghetto. Moynihan (1997) develops a similar analysis of the cultural “pathologies” within the African American family that reinforce their subordinate class position. More recently, the notion of the underclass has been revived in the sociology of Wilson (1987) and Massey and Denton (1993), both of whom highlight the existence of specific cultural forms within the ghetto that may contribute to the reproduction of inequalities. The term has nonetheless undergone much criticism since Lewis (1966) for situating the roots of inequality in cultural causes (i.e. values, behaviors, identities) rather than structural ones (i.e. concentrated disadvantage within the ghetto). Despite this criticism, the idea that structural forces shape group culture which in turn perpetuate social inequalities has been reintroduced into social stratification theory, notably in the work of Michèle Lamont (Lamont, 2009; Harding et al., 2010).

I refrain from using the terminology of segregation, the ghetto, the enclave and the underclass in the empirical sections of this dissertation.⁴ This choice stems directly from the data and methods in which my analysis of immigrants’ spatial incorporation is grounded, which I develop in further detail in Chapter 2. Segregation and the ghetto both refer to the degree of spatial separation of groups between neighborhoods within cities. However, the measures I use do not specifically assess the intensity of spatial separation that are implied in these terms. Instead, I use variables and methods that describe the average share of immigrants, the average unemployment rates, etc. of individuals’ neighborhoods. While these methods enable me to describe differences in the types of neighborhoods in which immigrants and the French majority live, I cannot draw conclusions about whether these neighborhoods constitute ghettos or whether their inhabitants form an underclass.

Furthermore, beyond general discussions about how France’s peripheral urban neighborhoods are depicted in political discourse and the media, I avoid speaking of the *banlieues*. The notion of the *banlieues* embodies meanings similar to those contained in the notions of the ghetto and the underclass. Moreover, despite its widespread use, the term is not generally considered by French sociologists as a rigorous analytical concept (Oberti and Préteceille, 2016).

⁴I do, however, continue to use the word segregation in the theoretical sections as most of the literature I discuss is grounded in this terminology.

Instead, the terminology I adopt is grounded in the language of theories of immigrant incorporation and assimilation, which I develop in Section 1.2. I use the term *spatial incorporation* to refer to the process by which immigrants and their offspring come to live in similar neighborhoods as the majority population (Iceland, 2009; Alba and Nee, 2009). Spatial assimilation or spatial integration are alternative ways of describing this process. Indeed, conceptual differences between assimilation, integration and incorporation are ambiguous and the terms are generally accepted as synonymous. However, the language of assimilation is rare and controversial in the French context. For this reason, I prefer the term spatial incorporation, and only use the language of assimilation in relation to spatial assimilation theory.

Beyond the theoretical justification for using the terminology of spatial incorporation, this choice is also rooted in the methods I employ. The notion of process underpinning spatial incorporation better corresponds to the longitudinal methods used in Chapters 4 and 5 to track moves and transitions in and out of neighborhoods with different shares of immigrants, the unemployed, etc. This idea of a dynamic process is less salient in the notion of segregation, the meaning of which tends more towards a static picture of spatial separation of groups at a given point in time.

In relation to the vocabulary of inequality and social stratification research, I also use the terms *residential outcomes*, *neighborhood and housing outcomes and attainment*, *upward and downward spatial mobility*, and *spatial disadvantage*. I provide precise definitions for these terms in Chapter 2, when I present the variables used in the analysis.

1.1.2 Race/Ethnicity, Immigration, and Social Class

Concepts of Race/Ethnicity/Immigration and Their Application in France

As they are generally used within the social sciences, race and ethnicity refer to systems of classification of human beings. Any definition of these terms should begin, however, by emphasizing their complex conceptual history within and outside of the social sciences. A vast body of research, of which the work of Banton (1998) is central, has traced the genealogy of these concepts throughout historical periods and disciplines, offering an anal-

ysis of the major theoretical standpoints from which race/ethnicity have been understood. In this history of concepts, race and ethnicity have been revised, abandoned, and revived, as their analytical clarity, their relevance for describing and explaining social phenomena, and the validity of their measurements have been challenged.

In the social sciences today, a general consensus exists around the idea that race and ethnicity are social constructions rather than biological determinisms. The social constructionist approach to race/ethnicity, whose influence within sociology can be traced to Barth (1969), considers race and ethnicity as classification processes of human beings that are historically and socially contingent, the meanings of which may vary over time and place. The importance of the social construction approach lies in the rejection of the idea that race/ethnicity constitute intrinsic traits of individuals. Rather, racial/ethnic distinctions are a process by which group boundaries - and shared beliefs about differences between individuals - are drawn in a given society at a given point in time. Nonetheless, it is not because race/ethnicity are social constructions that they do not constitute powerful social realities, structuring identities, power relations and social inequalities (Bonilla-Silva, 2006).

The notion of social process underlying the social construction approach to race/ethnicity helps overcome a particular difficulty encountered by sociologists in the definition of these terms: namely, the objective criteria in which ethnic/racial distinctions are grounded. Sociologists have attempted to clarify the distinction between race and ethnicity based on a clear-cut identification of such criteria: culture, religion, and national origin have, for instance, been assigned to the domain of ethnicity, while phenotypes such as skin color are considered to belong to the realm of race. However, considering race/ethnicity as a process of boundary production undercuts the necessity of identifying such criteria in order to capture ethnic/racial distinctions. This is the point made by Cornell and Hartmann (2006), who propose a general distinction between race/ethnicity based not on objective markers but on the social meanings and processes behind them. These scholars focus on the fact that race is generally a designated or imposed categorization (from without) based on beliefs about biological differences, while ethnicity involves subjective belonging, identity and group membership (from within), encompassing beliefs about shared culture

and origin. Furthermore, race participates in social hierarchies, notions about moral worth and political struggle, while this is much less the case for ethnicity.

Drawing on a social construction approach, I insist in particular on three dimensions of race/ethnicity that have been emphasized by social theorists: first, that race/ethnicity constitute a social process involving meaning-making and boundary production, second, that they connote status distinctions; and finally, that they are a categorical basis for resource distribution which interact with and are co-produced by other dimensions of social stratification. Omi and Winant (2015) introduced the concept of racialization to emphasize the meaning-making processes underpinning racial/ethnic distinctions.⁵ Part of the meanings associated with race/ethnicity are rooted in social status, or inequality grounded in differences in honor, esteem and respect (Ridgeway, 2014). The idea of race/ethnicity as status dates back to Max Weber (Weber, 1978) who relates these notions to honor and prestige, key dimensions in his theory of social stratification. Recent developments in social stratification theory have emphasized the status content of race/ethnicity, notably in the work of Lamont (2009), who reveals how beliefs that individuals hold about racial distinctions relate to distinctions of honor and moral worth. From this point of view, distinctions of status help perpetuate racial distinctions by reinforcing stereotypes/meanings about racial groups.

Finally, from a social stratification point of view, I conceive of the notions of race/ethnicity as categories which organize inequality, or impact the distribution of valued resources in society (Grusky et al., 2001; Massey, 2007). I am further interested in how racial categories are produced and reinforced in their relation to other dimensions of social stratification, not only status as previously mentioned, but also inequalities rooted in class and space (McCall, 2001; Massey, 2007; Saperstein and Penner, 2012, 2010). The interaction between class, space and race/ethnicity are of particular interest to me in this dissertation: primarily, by examining how race/ethnicity, class and place interact to structure spatial inequalities, but also by considering how spatial inequalities shape processes of ethnoracial boundary production and meaning-making.

⁵Racialization refers to the “extension of racial meaning to a previously racially unclassified relationship, social practice or group” (Omi and Winant, 2015, p.111).

In France, adopting the terminology of race and ethnicity is highly controversial. Under French republicanism, ethnic/racial distinctions are not officially recognized as objective categories or subjective identities, nor are formal measures of these categories implemented by national statistical bodies (Simon, 2008). The use of race/ethnicity as analytical categories in the French social sciences has nonetheless gained ground in recent years. In the absence of formal statistics, researchers have developed various methodologies for capturing ethnic/racial background (Safi, 2013). First and last names, for instance, have been used to study ethnic school segregation Felouzis (2003). Most commonly, however, scholars studying ethnoracial inequalities in France rely on national origin as a statistical proxy for racial/ethnic background.

The empirical analysis in this dissertation draws on French data sets in which the national origin of immigrants as well as the national origin of the parent(s) of children of immigrants can be identified. I use the term first generation immigrants to refer to the foreign-born population and second generation immigrants to denote children whose parent(s) are first generation immigrants. The national origin of first generation immigrants refers to their country of birth, while that of second generation immigrants refers to the country of birth of their immigrant parent(s). I discuss in further detail the construction of immigrant generation and origin categories in Chapter 2.

Despite the debates surrounding these terms in France and the difficulty in measuring them, my decision to adopt the terminology of race and ethnicity is rooted in my theoretical and empirical approach to studying immigrants' spatial incorporation in France. First, these concepts are central to classic theories of spatial incorporation on which I draw heavily. These frameworks originate in the U.S., where race/ethnicity have a more widespread and consensual use, and where the concepts of race/ethnicity, segregation and spatial inequalities are deeply intertwined objects of inquiry since the First Chicago School.

The use of this terminology is further grounded in an empirical concern underpinning my investigation of immigrants' spatial incorporation in the French context. Indeed, a focus of my analysis is to identify whether racial/ethnic distinctions are useful and relevant for understanding spatial inequalities between immigrants and the French majority. While

I do not use the words race/ethnicity or ethnoracial group in the empirical parts of this dissertation, preferring the term immigrant origin, in the general conclusion I discuss why the patterns linked to immigrant origin observed in my analyses might be considered a form of ethnoracial inequality.

Social Class

In addition to its concern for race/ethnicity, the literature on immigrants' spatial incorporation also focuses heavily on mechanisms related to social class and social mobility in shaping residential outcomes. I use a very basic definition of social class from contemporary social stratification theory to refer to groups of individuals who occupy a similar position in the social hierarchy on the basis of economic assets, most commonly measured by income, wealth, occupational category or education (Grusky et al., 2001). While traditional definitions of class highlight these economic criteria, in France, the cultural content of class (practices, tastes, etc.) is particularly important to distinctions between social groups and in reproducing inequalities (Bourdieu, 1984; Coulangeon, 2011). Social mobility thus refers to the process by which individuals change class positions throughout the life course, due to changes in income, wealth, occupation, or education. I focus specifically on questions of upward social mobility, or upward movement in the class hierarchy. Likewise, intergenerational social mobility is used to denote changes in class position between parents and their children. I also used the term socioeconomic status to refer to social class.

I alternately use variables measuring income, occupation and education to capture processes related to social class and social mobility. Further precision on how these concepts are operationalized in the empirical chapters of this dissertation are provided in Chapter 2.

1.1.3 Debates on the Cross-National Comparability of Immigrants' Spatial Incorporation

The predominance of theoretical models of segregation and spatial incorporation forged in the U.S., and the large body of empirical research produced there, has raised debates among social scientists as to the relevance of importing these concepts and frameworks to study spatial inequalities in Europe. A number of scholars argue that the U.S. approach to segregation has distorted research in Europe, shaping a number of myths and assumptions about the magnitude and causes of spatial inequalities in the European context (Wacquant, 1992; Musterd, 2003; Wacquant, 2008; Peach, 2009).

Musterd (2003), whose research primarily concerns the Netherlands, identifies a set of these assumptions that he considers are driving political discourse and social science research on these questions in Europe. First, levels of segregation are high and rising; second, segregation primarily impacts poor non-European immigrants, which European states are failing to integrate; and third, high levels of residential segregation negatively impede on social mobility, so that spatial inequalities spur social inequalities. Among some scholars, such as Peach (2009), the argument is pushed even further: research on segregation in Europe that is conducted under these assumptions actually participates in “making” the ghetto. Similar arguments have also been developed by Finney and Simpson (2009), who claim that the myth of the “segregation problem” overshadows research and discourse surrounding segregation. In France, a related debate has also been sparked within the social sciences concerning the intensity of segregation in the *banlieues* and its consequences for the social integration of immigrant origin groups. This point is of particular concern to Wacquant (1992, 2008), who questions the comparability of the U.S. ghettos and the French *banlieues*.

Why would spatial incorporation processes in the U.S. and European contexts be incomparable? Sociologists generally point to two primary sources of divergence which would result in less intense spatial inequalities in European countries: first, distinct histories of immigration and racial discrimination, and second, the stronger role of the European welfare state in attenuating inequalities.

Indeed, the historical experiences of France and Europe stand in stark contrast to the United States in terms of immigration. In light of slavery, the presence of a large non-European minority population in the U.S. has a long history. Mass immigration to the U.S. brought waves of primarily European immigrants during the late 19th and early 20th century. In contrast, non-European immigration to Europe is a relatively recent phenomenon and is linked to colonial history. In France, most non-European immigrant waves came to France following the decolonization of Africa and Asia after 1945, often at the impulse of specific pro-migration policies implemented by the French state (Weil, 1995; Noiriél, 2016). Furthermore, the legacy of legal discrimination and segregation against African Americans in the United States does not have an equivalent in European countries, and continues to perpetuate racial inequalities in contemporary U.S. society. While contemporary inequalities in Europe can also be viewed in continuity with the legacy of colonialism (Bancel et al., 2013), the argument that the two contexts present important specificities which complicate cross-comparison is still a prevalent one.

Perhaps of even greater interest to scholars is the contrasting role of the state in Europe and the U.S. and its implications for spatial inequalities. Many scholars make the argument that the existence of a strong welfare state in European countries contributes to lower levels of segregation. First of all, through redistribution and widespread intervention in the labor market and educational systems, the state indirectly buffers against intense socioeconomic spatial inequalities by reducing socioeconomic inequalities overall. Furthermore, government intervention in housing markets is common in Europe through the provision of public housing. By regulating the available housing stock in urban areas, European governments contribute to reducing socioeconomic inequalities and balancing the spatial distribution of socioeconomic groups (Oberti and Prêteceille, 2016).

Beyond the general role played by the welfare state, scholars also insist on the widespread implementation of policies in Europe that are specifically designed to combat segregation and its negative effects. The most common instance of this type of intervention are “social mix” policies, by which national or local governments intervene directly in the spatial distribution of social groups to hinder processes of ghettoization. Such policies are widespread in Europe and have been studied by numerous scholars in relation to minori-

ties' spatial concentration, in the Netherlands (Bolt, 2009; Van Kempen and Bolt, 2009; Musterd and Ostendorf, 2013), in Germany (Schönwälder and Söhn, 2009) and in Sweden (Andersson et al., 2010). In France, such policies are known as *politiques de mixité sociale* and have received much attention within political science research (Tanter and Toubon, 1999; Epstein and Kirszbaum, 2003). The majority of these social mix policies are based on the spatial distribution of groups based on income or other socioeconomic criteria within the public housing sector.

Finally, the direct or indirect action of European welfare states is considered to play an important role not only in reducing levels of segregation, but also in attenuating the negative repercussions of concentrated spatial disadvantage. Place-based policies targeting deprived neighborhoods are also widely implemented in Europe and aim explicitly to improve prospects for social integration and mobility in poor areas. These often take the form of additional government subsidies to schools located in disadvantaged neighborhoods, as well as plans for economic development or urban renewal. In France, such policies rooted in territorial criteria are implemented by a special ministry devoted to urban policies known as *la politique de la ville*.

Not all of the evidence, however, supports the idea that state intervention is effective in reducing the segregation of immigrants or ethnic/racial minorities. Indeed, underlying the majority of such policies targeting segregation in Europe is an assumption about its cause: namely, that segregation is primarily class-driven (Bolt et al., 1998, 2008). Implementing class-based policies to combat segregation relies on a simplified reading of the complex processes contributing to segregation, and undercuts the potential role played by race/ethnicity in shaping spatial inequalities. Moreover, other strains of research have called attention to the ways that policies in Europe might actually have perverse consequences, with the effect of bolstering segregative dynamics rather than reducing them. Such findings have emerged from research across a variety of contexts, showing, for instance, how policies in the public housing sector channel renters into deprived neighborhoods in England (Manley and Van Ham, 2011), or how programs aiming to improve social mobility in poor locations may be ineffective if upwardly mobile individuals leave, only to be replaced by poor residents (Andersson and Bråmås, 2004). French research has

similarly investigated the ways in which the implementation of social mix policies may reinforce patterns of urban inequalities (Sala Pala, 2005; Bourgeois, 2013; Tissot, 2005).

In the sections that follow, I weave together U.S.-based theory with findings and insights from European research to show that, despite cross-national differences, similar processes may be occurring across contexts which can be addressed within a common interpretative framework.

1.2 Models of Immigrants' Spatial Incorporation

1.2.1 Classic Spatial Assimilation Theory and its Critiques

The traditional narrative pertaining to the incorporation of immigrants into host societies is assimilation theory. The theory can be summarized as a temporal process that leads to a decline in ethnic distinctions (Iceland, 2009; Alba and Nee, 2009), by which immigrants shed any markers of difference and increasingly come to resemble the mainstream population. The earliest definitions of assimilation can be found in the writing of First Chicago School sociologists Park and Burgess in *Introduction to the Science of Sociology*: "Assimilation is a process of interpenetration and fusion in which persons and groups acquire the memories, sentiments, and attitudes of other persons or groups, and, by sharing their experience and history, are incorporated with them in a common cultural life" (Park and Burgess, 1921, p.735).

For these sociologists, the general question of immigrants' assimilation was deeply embedded with sociological inquiries about space. In a context of mass immigration from Europe to the United States in the early twentieth century, coupled with the internal migration of African Americans from the rural South to the industrialized North, these sociologists used the city as a laboratory for observing assimilation processes and social relations in urban areas. The school produced an immense corpus of ethnographic studies, giving the impetus to the development of some of the earliest theoretical perspectives on space. Park and Burgess (1921) propose the ecological model of the city, laying the foundation for what would become spatial assimilation theory. Building on the natural

sciences, the ecological model is grounded in the idea of the city as a conglomeration of “natural areas” in which social groups compete over scarce resources. The theory also offers one of the earliest models of urban change, occurring through a process of invasion and succession by which population groups come to replace each other (Park and Burgess, 1921; Park et al., 1984).

As is evident in the emphasis on shared experience, sentiments and attitudes in Park and Burgess’ definition of assimilation, most early theorists approach assimilation as being primarily a process of acculturation that would occur naturally over time. Assimilation as acculturation is a common motif in Park and Burgess’ sociology, even as they introduced variations on the definition of assimilation throughout their careers, and remained the prominent viewpoint of sociologists until Milton Gordon made his notable contribution to assimilation theory in 1964.

In *Assimilation in American Life*, Gordon offered a more complex reading of the assimilation process by distinguishing between a number of different dimensions on which assimilation could occur. Moving beyond assimilation as acculturation, Gordon identifies seven aspects of the assimilation process (Gordon, 1964).⁶ Following this multidimensional perspective, assimilation pathways may differ across groups within a host society, as it is possible for groups to be assimilated on one dimension but lacking assimilation on another.⁷ Although he proposes seven dimensions of assimilation, the key distinction made by Gordon is between acculturation and structural assimilation, by which ethnic minority groups enter into primary-group relationships with the majority population. Gordon argued that while the integration of cultural behaviors is a more or less inevitable process, it is not critical to full assimilation. Structural assimilation, on the other hand, is the impetus to assimilation on all dimensions: as he writes, “once structural assimilation has occurred, all of the other types of assimilation will naturally follow” (Gordon, 1964, p.81).

Though neither Park and Burgess nor Gordon concretely use the term spatial assimi-

⁶Namely, cultural, structural, marital, identificational, attitude receptional, behavioral receptional and civic assimilation.

⁷Taking one of his examples, at the time of his writing, African Americans were for the most part culturally and civically assimilated, but not incorporated on the structural or marital dimensions.

lation, the residential dimensions of assimilation are fundamental to these early authors' conceptions of the assimilation paradigm. Spatial assimilation, formalized by Massey and Denton (1985), is the canonic version of assimilation theory transposed to the locational outcomes of immigrant or minority groups. The spatial assimilation model is the process by which immigrants gradually migrate out of immigrant neighborhoods as they experience upward social mobility and acculturation (Massey and Denton, 1985; Alba and Logan, 1993). The spatial concentration of recent migrants is seen as a temporary step in a larger process of integration in the host society, during which they come to resemble majority group members culturally and socially. In Park and Burgess' sociology, the spatial assimilation process is captured in their ecological model of the city, by which segregation arises as individuals with unequal human capital compete over scarce resources in space. As for Gordon, although he did not differentiate spatial assimilation from other dimensions, he argued that if a minority group is residentially segregated, both acculturation and structural assimilation will be strongly impeded, hindering the road to full assimilation.

In light of the model's emphasis on cultural assimilation and socioeconomic status, the spatial assimilation model thus considers segregation as largely resulting from the attributes of immigrants themselves. The causal mechanisms are situated at the level of individual traits reflecting the degree of immigrants' social, economic and cultural incorporation. The key driving forces of desegregation are factors such as immigrant length of stay, generation, and socioeconomic status. As immigrants adjust to the host society over time and integrate the labor market, they will convert their economic gains into improved residential positions, leaving impoverished immigrant areas notably through access to homeownership. Generational dynamics are of key theoretical importance to this perspective with the assumption that successive immigrant generations will have improved residential outcomes compared to earlier waves of migrants. Spatial assimilation can thus be understood as a largely mechanical, individual process by which immigrants shed their distinctiveness and come to occupy similar spaces as mainstream groups (Massey and Denton, 1985).

Both classic assimilation theory and its spatial version have been as deeply influential

in empirical research on immigrants' residential segregation as they have garnered criticism. On a conceptual level, the word assimilation has become controversial in both the social sciences and everyday language due to its normative, ethnocentric connotations, seemingly opposing the social undesirability of ethnic distinctions and the ideal of mainstream culture (Alba and Nee, 2009). In France, the concept of assimilation has been abandoned altogether and replaced with "integration", while in U.S. sociology the concept persists due to much effort to rehabilitate it (Alba and Nee, 2009). Perhaps more importantly, on an empirical level, evidence supporting spatial assimilation tends to be mixed. While some studies show the positive effects of immigrant length of stay, generation, and socioeconomic status on living in greater proximity to the majority, other research pointing to persistently high levels of segregation for certain minority groups poses a challenge to the explanatory power of the theory.

The primary critiques directed towards spatial assimilation theory can be summarized as follows: first, the theory derives a simplified conceptualization of space from the Chicago School tradition; and second, spatial assimilation gives little attention to the ways in which ethnoracial boundaries shape spatial trajectories. I briefly develop these two critiques in light of their importance to the development of the place stratification perspective discussed in the following section.

The first critique concerns the assumption behind classic assimilation theory's conception of space. The Chicago School's ecological model treats residential segregation as a product of "natural" groups competing over scarce resources found in the "natural" areas of the city. This microeconomic model based on individual competition does not pay strong attention to the social processes and power relations that structure the unequal distribution of resources across places and that determine the uneven distribution of groups across space. This critique was developed in detail by (Logan and Molotch, 1987) with their political economy approach to space. From this perspective, places are not natural areas but rather interest groups with differential capacities to capture valued resources. Places thus are thus stratified in terms of resource endowment with consequences on individuals living there. Furthermore, the political economy approach to space criticizes the notion of free migration that microeconomic models posit. Rather than considering mobility as

constrained only by individual-level factors, this critique instead highlights the ability of places-as-interest-groups to regulate migration flows within their borders.

The second critique relates to spatial assimilation's weak recognition of how ethno-racial distinctions come into play to shape immigrants' spatial outcomes. The call to pay greater attention to inequalities linked to race/ethnicity comes from both within and outside of the assimilation paradigm. On the one hand, from within the assimilation paradigm, Portes and Zhou (1993) make a fundamental contribution to revising assimilation theory by re-injecting the importance of ethnoracial boundaries. With their model of "segmented assimilation", they work with the assumption that race and ethnicity are strong predictors of the "type" of assimilation that immigrants and their descendants will experience: while some immigrants may experience assimilation into the mainstream, unimpeded by racial exclusion, a disadvantaged position in the racial stratification system could lead to "downward" assimilation into the lower ranks of society. Thus, there is not one single pathway of immigrant incorporation, but rather different "modes", of which race/ethnicity are an important determinant (Alba and Nee, 2009; Portes and Rumbaut, 2006).

On the other hand, sociologists working outside of the assimilation paradigm have brought to light the salience of race in spatial outcomes by documenting the persistent segregation of African-Americans within urban settings (Myrdal, 1944; Clark, 1989; Lieberman, 1980; Wilson, 1987; Massey and Denton, 1993; Jargowsky, 1997). This large body of work focuses specifically on the black/white spatial divide and urban poverty within black neighborhoods. Gaining ground during the mid-twentieth century and continuing to the present day, this literature has been fundamental in the emergence of the second dominant theoretical model of spatial incorporation, the place stratification perspective.

1.2.2 The Place Stratification Perspective: Reintegrating the Role of Race and Ethnicity

The place stratification approach is rooted in the intersection of the political economy critique of space proposed by Logan and Molotch (1987) and theories of ethnoracial strat-

ification. From the political economy critique of space, it integrates the perspective that places themselves are stratified in terms of resource distribution, representing distinct “sets of advantage and disadvantage” that participate in power relations and the exclusion of social groups (Logan, 1978). From models of ethnoracial stratification, it adopts the idea that discrimination and barriers to opportunities create differential access to resources across ethnoracial groups which impede assimilation, producing ethnoracial hierarchies in a wide range of outcomes. Just as the model of segmented assimilation combines ethnoracial boundaries with the segmentation of socioeconomic positions (Alba and Nee, 2009), the place stratification perspective fuses processes of ethnoracial stratification with processes of place segmentation to focus on how race and ethnicity structure urban inequalities.

The place stratification perspective gained ground during the latter half of the twentieth century in light of empirical studies documenting persistently high levels of segregation among African Americans in the U.S. Indeed, as interest in the question of immigrants’ spatial concentration, which helped generate spatial assimilation theory, declined in the 1930s following more restricted immigration laws, during the mid-century attention shifted to the issue of spatial separation between blacks and whites (Iceland, 2009). Early work from Myrdal (1944) and Clark (1989) emphasized the role of discrimination in maintaining the color line in residential outcomes and its repercussions for racial inequality. Despite the civil rights advancements of the 1960s, including the implementation of the Fair Housing Act of 1968, and greater upward social mobility among African Americans, residential segregation did not experience its predicted decline. In a fundamental work within place stratification, Massey and Denton (1993) provide one of the most thorough examinations of the role of discrimination and housing market segmentation in perpetuating the black/white spatial divide.

This model thus looks to the ways that dominant racial groups are able to use space to maintain social distance with undesirable others, with the effect of channeling racial minorities into the most disadvantaged residential locations (Farley and Allen, 1987; Massey and Denton, 1993; Charles, 2003). The perspective highlights two major mechanisms: 1) discrimination at both the individual and institutional levels that constrains minorities’

residential options by producing a dual housing market and 2) neighborhood racial composition preferences which influence the migration patterns of both majority and minority groups.

As anti-discrimination legislation in the 1960s-1970s targeted exclusionary practices by real estate agents and creditors, these reforms did not mark the end of racial discrimination in housing. A bulk of findings gathered from audit studies⁸ has shown how, in the post-civil rights era and continuing today, overt racial discrimination “went underground” to take on more subtle forms, by a variety of institutional and individual actors: real estate agents, banks and insurance companies, but also landlords and owners (Massey and Denton, 1993; Ondrich et al., 1999; Yinger, 1995; Ross and Turner, 2005; Massey, 2005). While direct refusals continue on both the owner and rental markets, new practices include racial steering, by which minorities’ demand for housing is directed towards minority neighborhoods, differential information about eligibility for housing or the availability of units, word-of-mouth or closed advertising for housing, differential assistance in obtaining lending, and mortgage discrimination. Some of the most recent evidence documents how sub-prime lending disproportionately targets minorities and channels them to disadvantaged areas (Apgar and Calder, 2005). Roscigno et al. (2009) further show how discrimination can take on non-exclusionary forms through differential treatment in current housing arrangements, putting minorities at a greater risk to pay more or be denied certain rights or services for rentals.

Secondly, race-based residential preferences are highlighted as an important vehicle for sustaining the color line. Again, despite the civil rights movement and the predicted shift towards a post-racial society, research shows that negative stereotyping of African Americans continues to be salient and structures residential choices, even while most people overtly state their opposition to racial discrimination and segregation (Massey and Denton, 1993; Charles, 2003). Through white flight or white avoidance phenomena, white households implement race-based residential preferences by moving out of, or not moving into, neighborhoods concentrating minorities. Early models from Schelling (1969,

⁸Audit studies involve an experimental test of discrimination in an interactional setting by having two candidates with identical characteristics but different racial background apply for housing (Yinger, 1995).

1971) show how segregation is perpetuated by the out-mobility of whites once the share of minorities in the neighborhood reaches a certain threshold. Numerous empirical findings have provided evidence in favor of this mechanism and have documented these specific white mobility patterns, both in recent years (Bobo and Zubrinsky, 1996; Charles, 2003; Denton and Massey, 1991; Harris, 2001; Krysan, 2002; Logan and Zhang, 2010; Pais et al., 2009) and as early as the first decades of the 20th century (Shertzer et al., 2016; Shertzer and Walsh, 2016).

While the evidence thus points in favor of race-based neighborhood preferences as a mechanism of segregation, greater ambiguity remains as to whether these preferences are motivated by racial prejudice, in-group attachment, or a racial proxy mechanism by which whites seek to avoid not minorities, but the forms of concentrated disadvantage that tend to be prevalent in minority neighborhoods (Krysan, 2002; Charles, 2003). Some authors insist that historical patterns of settlement and urban development, neighborhood reputations and spatial disadvantage of minority neighborhoods influence white migration patterns beyond racial prejudice. Others, such as Massey and Denton (1993), put the emphasis on racial prejudice, citing evidence showing that whites avoid neighborhoods with minority presence even after controlling for objective characteristics of the neighborhood such as socioeconomic status, physical attractiveness, etc. (Emerson et al., 2001; Charles, 2003; Krysan et al., 2009). Research also shows that whites' preferences for white neighborhoods are strongest among households with young children, suggesting that a desire for segregated schooling environments may be driving these preferences (Emerson et al., 2001).

While place stratification stresses that the residential preferences of majority group members are the most salient to segregation processes, the residential strategies of minorities have also been given attention. The hypothesis that minorities may choose segregated neighborhoods due to the resources accrued through spatial proximity to members of the same racial/ethnic group has been mainly explored in the literature on ethnic enclaves (Zhou and Logan, 1989; Logan et al., 2002). These resources may be economic, social, symbolic, or for stigmatized groups, provide a buffer against racial hostility (Krysan and Farley, 2002; Charles, 2003). Some survey evidence tends to disconfirm this hypothesis,

however, as it has been shown that both whites and minorities prefer white neighborhoods, undermining the notion that minority self-segregation is the driving force of persistent residential segregation. Furthermore, even when minorities prefer living in proximity to members of their own group, the preferences of whites to live with other whites tend to be stronger (Charles, 2003; Massey and Denton, 1993).

Mutually Exclusive Frameworks?

Most studies adopting the frameworks of spatial assimilation and place stratification tend to oppose them as mutually exclusive paradigms, rather than focusing on the ways in which spatial assimilation and place stratification processes might interact (Crowder and Krysan, 2016). In one of the few theoretical efforts to bypass the spatial assimilation/place stratification dichotomy, Logan and Alba (1993) propose a nuanced version of these theories to capture how mechanisms central to both theories may co-exist. One of the key insights from Logan and Alba (1993) is the idea that an essential assimilation mechanism, socioeconomic status, may operate in different ways across ethnoracial groups. They distinguish “weak” and “strong” versions of stratification in addition to classic spatial assimilation to denote these variations. In “weak” stratification, minorities will achieve residential outcomes similar to majority group members with low socioeconomic status. In this case, income and education will indeed act as a motor of residential outcomes, as spatial assimilation suggests, and may even be a more salient mechanism to minorities than other groups, even if it pushes them only to achieve positions of lower class majority members. In “strong” stratification minorities will remain in more segregated/disadvantaged areas than any majority group regardless of status. In this case, due to discrimination on housing markets, race may operate to maintain segregated outcomes even among upwardly socially mobile groups.

The key idea here is that assimilation mechanisms like class will interact with race/ethnicity in significant ways. For some minority groups, class will be more salient than race/ethnicity, so that high socioeconomic status dilutes any differences in spatial outcomes with the mainstream (spatial assimilation). For others, race/ethnicity will be more powerful than individual factors like income, so that even middle and upper-classes will remain in dis-

advantaged and segregation spatial positions at greater rates than any majority members (strong stratification), or at least more than majority members with low socioeconomic status (weak stratification). This perspective begs researchers studying spatial incorporation to explore degrees of spatial assimilation as a function of ethnoracial group.

* * *

Spatial assimilation and place stratification thus provide important avenues of interpretation for understanding segregative dynamics, and are the major frameworks applied to immigrants' spatial incorporation. These models do not, however, pay much attention to the enduring nature of spatial outcomes, both over the life cycle and across generations. The final approach I discuss draws on insights from the neighborhood effects literature and social stratification theory to consider the ways in which place - or the transmission of spatial positions over time - can itself be thought of as an independent mechanism of immigrants' spatial incorporation.

1.2.3 Insights from Neighborhood Effects and Social Stratification Theory: The Role of Place in Durable Spatial Inequalities

In 1987, Wilson (1987) published a seminal study on concentrated urban poverty, *The Truly Disadvantaged*, grounded in ethnographic fieldwork in the city of Chicago. A few years later, Massey and Denton (1993) produced an equally influential pillar in the literature on residential segregation, *American Apartheid*. The publication of these two works marks a turning point in the research on residential segregation and urban disadvantage, and are arguably two of the most frequently cited works in the field.

Both Wilson (1987) and Massey and Denton (1993) aim to explain why poverty in primarily black neighborhoods substantially rose in U.S. inner-cities throughout the 1970s. Not only did poverty increase substantially in census tracts already defined as poor, but the number of poor census tracts rose as well. Furthermore, this rise in urban poverty dis-

proportionately impacted neighborhoods with large shares of African Americans. However, the authors reach diverging conclusions about the underlying causes of this spatial intensification of poverty. Wilson forwards a class-based interpretation, arguing that the concentration of poverty in black neighborhoods is the result of structural changes in the economy linked to deindustrialization. As traditional low-skill manufacturing jobs disappeared, and higher-skilled employment relocated to the suburbs, the job opportunities available to low-skilled workers living in the inner cities were drastically reduced. This situation of “spatial mismatch” between jobs and workers provoked a severe rise in unemployment among African Americans living in the inner cities. These effects were compounded by the departure of upwardly mobile African Americans to more affluent suburbs, resulting in increased impoverishment of the inner-city neighborhoods they left behind. Wilson’s argument has been re-evaluated and confirmed in later years, notably by Jargowsky (1997).

Massey and Denton (1993) do not fully refute the socioeconomic structural mechanisms at the core of Wilson’s argument. However, the authors insist that Wilson omits a central mechanism in the rise and perpetuation of concentrated urban poverty: racial residential segregation. Massey and Denton’s thesis is that racially segmented housing markets combine with rising poverty among African Americans to produce the spatial concentration of poverty. Racial residential segregation is the missing link for understanding why increasing poverty rates become geographically confined to certain neighborhoods.

The contrasting arguments of Wilson and Massey and Denton as to the causes of urban disadvantage spawned a rich debate as to the predominance of race or class in explanations of spatial inequalities. Perhaps more importantly, however, both works offer important new insights into the *consequences* of living in impoverished and segregated urban areas. Both authors sketch a theoretical model for how the geographic clustering of poverty results in the concentration of a wide range of devastating social and economic characteristics, such as violence and crime, poor educational environments, drug use, and so forth.

By demonstrating the ways in which poor segregated neighborhoods form constellations of broader social disadvantage, Wilson and Massey and Denton bridge a gap between

two relatively disconnected branches of research: social stratification theory and the residential segregation literature from urban sociology. Social stratification theory is concerned with the question of resource endowment, or the processes by which individuals get attached to unequal positions within the social hierarchy, as well as the mobility processes by which they move across those positions (Grusky et al., 2001; Tilly, 1999; McCall, 2001). While social stratification has traditionally examined the role of class, race/ethnicity and gender in structuring access to resources, space has been given less attention as an independent mechanism of inequality. On the other hand, research on segregation has been primarily concerned with identifying patterns and causes (class, race/ethnicity, migratory factors, residential preferences, etc.) of spatial inequalities, without shedding light on how the social and economic conditions of neighborhoods might operate as a mechanism of inequalities. Wilson and Massey and Denton at once contributed to putting space on the agenda of social stratification research, and helped integrate broader issues of social inequality into urban research on segregation.

This impetus to merge insights from segregation research and social stratification perspectives has, since the 1990s, spurred an immense corpus of studies known as the neighborhood effects literature. The neighborhood effects literature is built on the assumption that space is in and of itself an independent mechanism of social stratification. In other words, the spatial concentration of disadvantage concretely impacts the life chances of individuals living in those spaces, above and beyond their own individual traits. A vast number of quantitative studies have attempted to isolate the effect of residence in poor segregated neighborhoods on a variety of individual outcomes (Sampson, 2012). Exposure to poor neighborhoods has been shown to have deleterious impacts on educational outcomes, employment, wages, health, and even child cognitive development, while the concentration of affluence has positive effects on achieving or maintaining privileged social positions (Jencks and Mayer, 1990; Ellen and Turner, 1997, 2003; Mayer and Jencks, 1989; Sampson et al., 2008; Sharkey and Elwert, 2011; Sharkey and Faber, 2014; Diez Roux, 2001; Sampson et al., 2002; Ermisch et al., 2012). Negative effects of neighborhoods on individual outcomes have been shown to be most acute in cases of long-term exposure to concentrated disadvantage, particularly beginning in childhood (Sharkey and Faber,

2014).⁹ Evidence of neighborhood effects also comes from Europe: in the context of Sweden, for instance, Galster et al. (2008) and Musterd and Andersson (2006) find evidence of contextual effects on earnings and job market prospects, while in France, recent research shows the negative effects of living in immigrant neighborhoods on employment and educational outcomes (Gobillon et al., 2011; Aeberhardt et al., 2015; Dujardin and Goffette-Nagot, 2005; Rathelot, 2014).

The effects of neighborhoods have also been investigated experimentally, thanks to residential mobility programs such as the Moving to Opportunity and Gautreaux projects. These projects sought to directly evaluate the impact of moving from high poverty to low poverty neighborhoods on a wide variety of outcomes. While the evidence from studies assessing these projects is not always consistent, it tends to show minor effects of moving out of poor neighborhoods on improved socioeconomic outcomes, educational achievement and even health (Keels et al., 2005; Leventhal and Brooks-Gunn, 2003; Sanbonmatsu et al., 2006; Ludwig et al., 2008).

Evidence from the neighborhood effects literature thus indicates how residence is salient to individual life chances in a number of ways. But this research also provides new insights into spatial incorporation processes that are not fully captured within the classic frameworks of spatial assimilation or place stratification: namely, how residential contexts and histories might themselves operate as mechanisms of neighborhood and housing outcomes over the life course, and even across generations. From this standpoint, original location, whether early in life or in the previous generation, is considered to shape current locational outcomes. This self-perpetuating dimension of place occurs through two major channels: first, by influencing the capacity of individuals and families to accumulate and transmit various forms of capital, and second by shaping residential

⁹I do not aim here to provide a full overview of the findings and methodological debates within the neighborhoods effects literature. In a recent review of the literature, Sharkey and Faber (2014) nuance the claim that neighborhoods matter, by specifying the conditions (“where, when, why and for whom”) contexts impact child and adult outcomes. The assessment made by these authors is that while contexts influence individuals’ lives, these effects vary considerably according to spatial scales and local contexts, the timing and duration of exposure to poor residential areas, and across different social groups (age groups, racial/ethnic groups, etc.). Furthermore, isolating an effect of neighborhood context raises methodological issues due to the endogeneity of location and sorting effects linked to socioeconomic status. While the majority of quantitative studies within neighborhood effects rely on classic regression models, the most recent efforts apply more complex models to isolate the effect of neighborhoods.

preferences and aspirations that determine residential choices (Sharkey, 2013, 2008).

First, as sites of advantage or disadvantage, places facilitate or hinder the accumulation and transmission of resources. The neighborhood effects literature illustrates that families can better ensure privileged class positions for their children within advantaged neighborhoods, while the opposite is true in poor neighborhoods. This is due to the vast differences in the quality of material, social and symbolic resources across types of residential locations. Higher quality educational environments, strong social networks and a variety of institutional resources are provided in affluent neighborhoods, while poor neighborhoods tend to be disconnected from such benefits. Such resources procured in space are key in opening up opportunities for social mobility. If prospects for social mobility are reduced in disadvantaged neighborhoods, upward residential mobility out of such neighborhoods will be more difficult to achieve.

In addition to material resources, places also have status, or varying levels of social worth and prestige, which procure varying degrees of status benefits for individuals. From Weber (1978) to recent social stratification theory, sociologists have highlighted the importance of status in inequality production, as it injects meanings about worth, honor and prestige into categorical distinctions between groups, with the effect of intensifying those distinctions (Ridgeway, 2014). The notion that places have status which in turn inform perceptions of difference between individuals is a constant motif in urban ethnographies since the Chicago School, and has been revived in the neighborhood effects literature. Sampson (2012) argues that places have status grounded in shared perceptions of disrepute, disorder or respectability. In the same way that unequal resource distribution across places impacts individuals' life chances, the unequal status rewards offered by places also impact outcomes by shaping perceptions about where one belongs. This symbolic categorization of places and the people who live there thus plays an important role in spatial outcomes.

Second, long-term exposure to neighborhoods conditions future residential preferences and aspirations. This is because, as symbolic and social environments, neighborhoods have lasting effects on residential preferences and aspirations (Sharkey, 2013). Neighborhoods represent purveyors of identity, culture, values and norms, all of which influence

residential decisions later in life. Growing up in a segregated environment, for instance, could condition preferences for the racial and class composition of neighborhoods during adulthood. Further, the status of places also shapes residential preferences, by informing expectations about where one should or should not live (Vartanian et al., 2007).

These mechanisms all point to reasons why we might expect to see spatial *immobility* over time, rather than spatial assimilation patterns towards improved neighborhood outcomes. Since these mechanisms are rooted in space, they may impact all groups in similar ways: majority groups might be just as constrained to remain in poor neighborhoods as minorities due to the low levels of resource endowment or status rewards found there. However, it is also possible to conceive of the ways in which place disadvantage could interact with racial/ethnic stratification, so that racial minorities in particular who grow up, or live for long periods of time, in disadvantaged neighborhoods might be particularly trapped. Racial discrimination, for instance, could interact with these place-based processes to restrict racial minorities' mobility out of disadvantaged neighborhoods.

Hence, taking this approach to understanding spatial incorporation has a number of important implications for thinking about the links between social and residential mobility. From a methodological point of view, it necessitates a shift of perspective so that mobility is analyzed over long periods of time and across generations, exploring residential histories and the correlations between location early and later in life. In other words, this perspective pushes to conduct intergenerational spatial mobility studies similar to those done on intergenerational social mobility within social stratification research (Grusky et al., 2001). Applying these methodologies to spatial outcomes, the *rigidity* of the spatial stratification system, or the extent to which residential positions are inherited over time, can be assessed.

1.3 Empirical Outlooks on Immigrants' Spatial Incorporation

Building on and extending the theoretical frameworks just outlined, I turn now to three distinct empirical outlooks on immigrants' spatial incorporation: neighborhood and housing outcomes, residential mobility and the intergenerational reproduction of spatial inequalities. These lenses draw on specific methodologies, and I evoke some drawbacks and advantages of each. I further provide empirical evidence from three contexts - France, Europe and the U.S. - resulting from studies using these various approaches.

1.3.1 Neighborhood and Housing Outcomes

The earliest and most widespread empirical studies on the segregation of immigrants or ethnic/racial groups, whether in the U.S., France or Europe, rely on the "index approach". Segregation indexes are a variety of statistical measures of spatial separation of groups across neighborhoods and urban areas, often calculated from aggregate level sources such as census data (Peach, 2009).

This commonly used methodology is rooted in a seminal contribution to segregation research from Duncan and Duncan (1955), who introduce the first formal quantitative measure of segregation, the index of dissimilarity. This index captures the degree of spatial separation of one group from another. Dissimilarity indexes can be measured at different scales of analysis, most commonly at the level of the census tract, to measure the spatial separation of two groups across neighborhoods within an urban area, or at the level of the city, to measure the spatial separation of two groups across urban areas. The dissimilarity index provides an intuitive measure of segregation in that it represents the proportion of individuals in a given group (A) that would have to change neighborhoods so that groups A and B are evenly distributed within the urban area (Duncan and Duncan, 1955; Duncan and Lieberson, 1959; Massey and Denton, 1993). While the dissimilarity index is still a widely used measure of segregation, other indexes have been developed to provide a more complex picture of segregation (Lieberson et al., 1981; Massey and Denton,

1989).¹⁰

Decades of studies from the U.S. using this methodology have made it possible to reach a few conclusions. First, spatial assimilation has been occurring for certain groups, as evidenced primarily by variation in levels of segregation by class, native-born status and length of stay. Second, black/white segregation has declined (Logan and Stults, 2011; Glaeser and Vigdor, 2012), the number of hypersegregated neighborhoods have receded (Wilkes and Iceland, 2004) and multiethnic neighborhoods have emerged (Logan and Zhang, 2010) since the 2000s. Yet, spatial concentration is still strongly shaped by race and ethnicity, and patterns related to class and other spatial assimilation factors vary significantly across racial/ethnic groups (Iceland, 2009). Third, new research suggests that substantial variation in segregation levels is found across metropolitan contexts, depending on the history of settlement patterns and the size of minority populations.

Consistent evidence shows that, whether for immigrant groups or African Americans, groups with higher socioeconomic status have lower dissimilarity indexes (Iceland and Wilkes, 2006). Class even appears to be playing an increasingly important role for African Americans, as suggested by recent declines in segregation for upper class blacks. Signs of greater residential incorporation over time may be revealing higher status rewards or the growing “acceptability” of the black middle class (Alba et al., 2000). These trends also go hand in hand with the observed rise in segregation based on class, wealth and education (Domina, 2006; Massey et al., 2009; Reardon and Bischoff, 2011).

Still, the effect of class remains mediated by race, as shown by the persistent segregation of African Americans. While overall aggregate levels of segregation may have declined, African Americans of all socioeconomic backgrounds remain more segregated from whites than other groups (Iceland and Wilkes, 2006). Locational returns to income have been shown to be more important for other minorities than for blacks, so that even middle and upper-class African Americans are still more concentrated in poor segregated neighborhoods (Wilkes and Iceland, 2004). Using ethnographic research, Pattillo (2013) finds similar results on the black middle class.

¹⁰Liebertson et al. (1981) proposes the isolation index, and Massey and Denton (1989) creates five indexes to capture different dimensions of segregation: evenness, exposure, clustering, centralization, and concentration.

The maintenance of racial residential segregation combined with rising class segregation, as well as unequal residential returns to socioeconomic status based on race/ethnicity, thus illustrate the complex interactions between class and race that structure locational outcomes.

Finally, place - or the characteristics of the larger urban area - influence segregation patterns in important ways. Krivo and Kaufman (1999) find that black-white segregation is higher when the black population in the metropolitan areas is large. Other studies also find variation across regions and metropolitan areas in segregation levels depending on the share of minorities. Further, Park and Iceland (2011) find that immigrant segregation levels are lower in new destinations compared to traditional settlement areas.

Neighborhoods In France and Europe

The first quantitative studies evaluating ethnoracial segregation in France come from Prêteceille (2009) and Safi (2009). Both of these studies use data from consecutive census dates and rely on various indexes of segregation to measure the spatial separation of immigrants of different national origins from French natives, and come to mostly concordant results. First, the findings point to substantially higher dissimilarity indexes for North Africans, Sub-Saharan Africans and Turks. Second, dissimilarity indexes appear to be on the rise. Focusing on cities within the Paris region, Prêteceille (2009) shows moderately increasing dissimilarity indexes between 1982, 1990 and 1999. Safi (2009), whose study covers a longer span of time (1968-1999) and several major metropolitan areas, shows that increases in segregation vary by immigrant origin group. While overall dissimilarity indexes are rising, a drop in segregation is found Spanish and Italian immigrants, but not for Africans or Turks. Finally, Prêteceille (2009), whose previous work has focused on the segregation of occupational groups, further provides evidence that ethnoracial segregation is stronger than socioeconomic segregation.

While these studies broke new ground in segregation research in France, they present the drawback of relying primarily on indexes that are calculated at the level of the municipality (*commune*). This limit results from the inconsistency or unavailability of smaller spatial units, such as census tracts, throughout the 1968-1999 period.

A few years later, Verdugo (2011) provides a similar assessment of the evolution of ethnoracial segregation and reaches similar conclusions. Using census data from 1968 to 1999, he documents higher overall levels of segregation for non-European immigrants, yet overall decreasing segregation for European immigrants in particular. This analysis, however, differs from that of Prêteceille (2009) and Safi (2009) on a few methodological points. First, the census tract is used as the unit of analysis in 1968 and 1999, enabling segregation to be assessed at the level of the neighborhood. Second, Verdugo (2011) breaks down dissimilarity indexes according to residence in the public or private housing sectors. These findings point to the conclusion that, despite overall decreasing segregation across urban areas, neighborhood segregation is increasing for non-Europeans, and this increase can be largely attributed to the concentration of immigrants living in public housing.

The first comprehensive analysis of ethnoracial segregation at the level of the neighborhood (*IRIS*) comes from Pan Ké Shon and Verdugo (2015). Using a similar methodology to Prêteceille (2009), Safi (2009) and Verdugo (2011), Pan Ké Shon and Verdugo (2015) track evolutions over consecutive census dates (1968 to 2007) in dissimilarity indexes between immigrants of various national origins and French natives.

Findings from Pan Ké Shon and Verdugo (2015) do not fully converge with those of Prêteceille (2009) and Safi (2009). Again, the most intense levels of segregation are observed for North Africans, Sub-Saharan Africans and Turks, with dissimilarity indexes that are at least 20 points higher than those of Europeans at all census dates. However, unlike previous findings, Pan Ké Shon and Verdugo (2015) maintain that, despite the increase in the overall share of non-European immigration over the period, no significant rises in dissimilarity indexes are observed over the period. The authors further show that average concentration declined for most groups. They also show patterns linked to length of stay: immigrants with a longer residential history in France generally live in tracts with lower shares of immigrants.

Despite points of convergence and divergence in these studies, they tend to agree on the fact that levels of segregation of African and Turkish immigrants in France, though higher than other groups, are not comparable to the magnitude of indexes found for African Americans in the U.S. This point is made particularly strongly by Prêteceille

(2009) and Pan Ké Shon and Verdugo (2015), who insist that, contrary to pervasive negative assumptions about France's *banlieues*, ghettos do not exist in France. Rather than being concentrated in ethnoracially homogeneous areas, most immigrants live in spaces with low shares of immigrants overall or of the same origin.

Nonetheless, data availability issues continue to make this debate difficult to resolve. A major limit of the above studies is that, due to the inability to identify ethnoracial categories, overall levels of segregation of minorities cannot be assessed. Furthermore, the categories used in existing studies do not include individuals with migrant background beyond the first generation, making it impossible to assess whether patterns in segregation vary between first and second generation immigrants. The restriction of current analyses to immigrants only, rather than ethnoracial minorities more broadly, results in calculations of segregation that are likely underestimated.

Only a few quantitative studies have provided insights into the residential outcomes of second generation immigrants. Drawing on data from the TeO survey, one of the rare sources in which second generation immigrants can be identified, a few preliminary findings provide evidence that the neighborhood outcomes of immigrants' offspring are shaped by ethnoracial patterns comparable to those observed for migrants. Looking at neighborhood unemployment rates, Pan Ké Shon (2011) reports that North Africans, Sub-Saharan Africans and Turks are substantially more concentrated in underprivileged neighborhoods, and although the residential outcomes of second-generation immigrants are slightly improved, spatial disadvantage appears to be largely transmitted across generations.

Research into ethnoracial segregation from other European countries shares similar debates to those in France. A wide range of studies drawing on census data, primarily from the Netherlands, the U.K., Germany and Sweden, have focused on inequalities across ethnic groups and attempted to identify whether segregation is increasing or declining.

Findings from this research broadly point to higher levels of segregation among non-Europeans. A large body of research drawing on census data throughout the 1990s and 2000s from the Netherlands shows ethnic disparities in neighborhoods with particularly segregated outcomes for Turks and Moroccans. Analyses conducted at both the national level and broken down by the largest Dutch cities show that these groups have the highest

dissimilarity indexes and increased chances of living in neighborhoods with high shares of non-Europeans (Bolt et al., 2008; Bolt and Van Kempen, 2010; Musterd and Ostendorf, 2009; Musterd, 2005). Likewise, in the U.K., the evidence suggests particularly high dissimilarity indexes for Black Caribbeans, South Asians, and Africans, even if levels are not as high in magnitude as those found in the U.S. (Peach, 1996; Musterd, 2005; Simpson and Finney, 2009). Findings from Germany also point to ethnoracially segmented neighborhood outcomes, with higher levels of segregation among Turks and Africans (Friedrichs, 1998; Schönwälder and Söhn, 2009; Glitz, 2014). While these authors also maintain that segregation in Germany is low compared to the U.S., and that immigrants tend to live in neighborhoods where multiple ethnic groups are present, they also show that immigrants reside in areas with higher unemployment and welfare use. Nonetheless, Friedrichs (1998) finds some evidence of spatial assimilation patterns in Germany, as lower levels of segregation are observed among immigrants with longer length of stay and higher socioeconomic status. Finally, in Stockholm at the beginning of the 2000s, Harsman (2006) finds the highest levels of segregation for Turks, Africans and Iranians.

These studies further add pieces to the puzzle of whether segregation levels are increasing or decreasing over time. Conclusions on this point are not always straightforward, as temporal patterns of spatial concentrations tend to vary according to the level of analysis (nation-wide versus city-wide trends) and by ethnoracial group. Comparing dissimilarity indices for immigrant groups over several decades, Bolt et al. (2002) and Musterd and Ostendorf (2009) find little support for the argument that segregation is increasing. Some findings point to decreasing segregation in the U.K. (Peach, 1996, 2009), while others show a rise of the spatial concentrations of non-Europeans during the 1990s (Simpson and Finney, 2009). Evidence from Germany documents a decline in segregation between the 1980s and 1990s (Friedrichs, 1998), while more recent results point to a slight rise for Turks and Africans (Glitz, 2014). Finally, segregation dropped in Stockholm for most groups, but increased substantially for others, notably Iranians and Africans (Harsman, 2006).

Housing in France and Europe

In France, while a number of studies investigate access to housing among the general population (Bugeja, 2011; Goffette-Nagot and Sidibé, 2010), only a few specifically investigate immigrants' housing outcomes. Using data from the early 1990s, Simon (1995) offers some of the first findings on immigrants' housing trajectories by national origin. He shows that Portuguese, Spanish and Asian immigrants have high rates of homeownership, while North Africans, Sub-Saharan Africans and Turks have low access to homeownership and high concentration within the public housing sector. Other results show that non-Europeans are over-represented on the public housing market, even after controlling for socioeconomic and life cycle factors (Verdugo, 2011; Pan Ké Shon and Scodellaro, 2011; Fougère et al., 2013).

In France, and in Europe more generally, public housing represents a larger share of the overall housing stock, about 18 percent in 2011 (Trevien, 2014). While households living in public housing tend to have lower average incomes, the French public housing sector is not reserved for the poor (Whitehead and Scanlon, 2007; Trevien, 2014). Income eligibility requirements are broad enough to include housing for middle-class households. Yet, the sector is highly socioeconomically segregated and unevenly spread across cities and neighborhoods. The poorest residents tend to live in dilapidated high-rises on the fringes of major cities where public housing makes up the majority of the total housing stock, while middle-income households have access to higher-quality units in more attractive localities (Whitehead and Scanlon, 2007).¹¹

Several processes related to the public housing market can be viewed as sorting immigrant groups unevenly into space. The first is a historical consequence of post-war urban development and immigrant settlement policies. In France, post-colonial immigrants found accommodation primarily in public housing estates implanted in the suburbs of large urban areas near industrial sites where jobs were available. In the wake of deindustrialization and rising unemployment, these public housing neighborhoods became

¹¹In France, the public housing stock is relatively old. 55 percent of the total stock was built prior to 1976; these older units are of poorer quality and tend to be located in deprived areas. While income eligibility requirements vary according to the type of housing, they are sufficiently large to include middle-income categories. In 2002, 35 percent of households in public housing belong to the lowest 25 percent of earners (Whitehead and Scanlon, 2007).

synonymous with socioeconomic disadvantage and increasingly came to concentrate poor immigrant households. The presence of minorities within the least desirable segments of the public housing sector also results from a history of racialized policies that explicitly aimed to manage the spatial distribution of immigrant groups forced to relocate after the slums and substandard housing in which they had been living were destroyed (Pinçon, 1981; Bernardot, 1999). Today, urban development policies such as the SRU law¹² have attempted to balance the distribution of public housing across French cities in the name of combating inequality, yet local opposition in some municipalities has been effective in blocking such initiatives (Subra, 2006). The prevalence of the lowest quality public housing in urban areas where poor immigrants have been historically present thus mechanically contributes to segregated outcomes for the most disadvantaged groups.

Secondly, the pervasiveness of systemic discrimination on the public housing market in France has shown that institutional practices may be impeding assimilation dynamics. A number of French urban studies have shown that the public housing sector widely performs racial profiling in housing assignments, and that these exclusionary processes are inherent to the way public housing agencies operate under national urban policy initiatives relating to social diversity (*politiques de mixité sociale*)¹³ (Tanter and Toubon, 1999; Simon et al., 2001; Sala Pala, 2005; Tissot, 2005; Sala Pala, 2013; Bourgeois, 2013). The concept of social diversity emerged as an imperative of urban policy in the early 1990s with a series of laws explicitly aiming to combat ghettoization, but remains highly ambiguous in its definition. In light of the colorblind basis of French policymaking, social diversity policies do not officially claim to be concerned with the spatial distribution of racial minorities; nonetheless, non-European immigrants and their offspring are informally understood as the populations whose concentration should be avoided (Simon et al., 2001; Sala Pala, 2005; Bourgeois, 2013). Due to their real or perceived low socioeconomic status and cultural distance from the mainstream, these stigmatized groups are constructed as potentially problematic tenants and neighbors, and a threat to the social prestige and

¹²The SRU law (*la loi relative à la solidarité et au renouvellement urbains*), implemented in 2000, requires French municipalities exceeding 3,500 inhabitants (1,500 in the Paris region) to have at least a 20 percent share of public housing out of the total available housing stock (Subra, 2006).

¹³Including legislation such as *la loi Besson* of 1990, *la loi d'orientation pour la ville* of 1991, and *le pacte de relance pour la ville* of 1996.

value of the real estate and neighborhoods. Public housing agents thus informally draw on race/ethnicity to categorize “bad” (i.e. non-European) and “good” (i.e. French or European) candidates, sorting non-Europeans into low-quality housing where disadvantaged minorities are already present in large numbers. Public housing agents are thus left with a great deal of discretion in allocating housing and neighborhoods, with paradoxically segregating consequences. Cases of institutional discrimination have increasingly been brought before the French courts against public housing authorities for having excluded African households in the name of the social diversity policy (Sala Pala, 2005; Bourgeois, 2013; Desage et al., 2014).

Discrimination on the private real estate market is also a driving force of immigrants’ segregation and interacts with exclusionary practices in the public housing sector. Evidence from audit studies shows that discrimination on the private housing market is particularly acute against African renters, who are substantially less likely to be chosen for an apartment compared to mainstream applicants with identical characteristics (Bonnet et al., 2015; HALDE, 2006). These findings are corroborated by self-declared reports of discrimination by first and second generation immigrants seeking housing: results from TeO show that Africans are the most likely of all groups to report having experienced discrimination on the housing market (Pan Ké Shon and Scodellaro, 2011; Safi and Simon, 2013). Given the risk of exclusion from mainstream housing markets, some minorities may seek to enter the public housing sector as an alternative pathway towards upward residential mobility. This intensifies the demand for public housing and reinforces discriminatory processes within the market. At the same time, discrimination on the private market reduces options to leave the public housing sector.

The available evidence on immigrants’ housing outcomes in France shows parallels with findings from Europe. Numerous studies from other contexts find that non-European minorities tend to be concentrated within public housing and have relatively low access to homeownership (Whitehead and Scanlon, 2007). In Sweden, Bråmås and Andersson (2010) find that net disparities in housing outcomes persist for Africans in particular. Low access to homeownership and high public housing rates are also found for Turks and Moroccans in the Netherlands (Bolt and van Kempen, 1997, 2002). Evidence of stratified housing

markets are further found in the U.K. (Peach, 1998; Manley and Van Ham, 2011). Most recently, Lymperopoulou and Finney (2016) document the most disadvantaged outcomes for Bangladeshi and Black Africans, particularly in London, where the majority of these groups occupy public housing.

1.3.2 The Residential Mobility Approach

The index approach to measuring neighborhood outcomes, though widely used to describe patterns in the spatial separation of various groups, presents a few drawbacks for assessing the tenets of spatial incorporation theories.

First, aggregate level data, while providing a useful picture of segregation levels between different groups, does not give a clear idea of the underlying mechanisms that shape individuals' neighborhood outcomes. Although classic studies have investigated correlations between dissimilarity indexes and various indicators of social and cultural integration, such as language skills and intermarriage (Duncan and Lieberman, 1959), or poverty levels (Taeuber and Taeuber, 1964), such an approach cannot evaluate whether, at an individual level, the net effects of socioeconomic status, cultural integration, race/ethnicity, or broader contextual characteristics operate to shape the kinds of neighborhoods in which people live.

Second, measures such as the dissimilarity index provide a static view of segregation, whereas theoretical models of spatial incorporation emphasize a temporal and dynamic individual process: residential mobility patterns. Residential mobility is central to the three theoretical frameworks discussed earlier, even if each perspective takes a different view on the ways in which moving contributes to spatial inequalities.

Spatial assimilation posits that mechanisms related to social mobility and acculturation will trigger a gradual process of residential mobility into predominately white neighborhoods. As the spatial assimilation model considers segregation as largely resulting from individual attributes, the model highlights factors such as length of stay, nativity and socioeconomic status. Of these mechanisms, upward social mobility is of particular theoretical importance, and is equated with upward residential mobility for all groups.

Wilson (1987) also puts the idea of class-based residential mobility at the core of his theoretical model of urban disadvantage, arguing that the substantial out-mobility of upwardly mobile African Americans to more affluent suburbs contributed to the rise in inner-city poverty.

In contrast, the place stratification perspective emits the hypothesis that social mobility does not always result in upward residential mobility. On stratified housing markets, race may operate to maintain segregated outcomes even among upwardly socially mobile groups. In the U.S., while Asians or Hispanics with high socioeconomic status are able to achieve more privileged residential positions, locational outcomes among blacks are less influenced by individual factors like income and more strongly determined by race, so that even middle and upper-class blacks remain in poor segregated neighborhoods. All in all, not all ethnoracial groups will be able to convert social mobility into residential mobility towards improved spatial or housing outcomes.

Furthermore, place stratification expects mobility patterns to vary by ethnic/racial groups for reasons related to ethnoracial-specific residential preferences, with the consequence of sustaining racial segregation over time. On the one hand, white flight or white avoidance phenomena, by which white households actuate their preferences for white neighborhoods, contribute to perpetual neighborhood turnover. On the other hand, immigrant groups or ethnic/racial minorities may choose to stay in segregated neighborhoods due to social or material resources found in the ethnic enclave.

Finally, social stratification theory and the neighborhood effects literature focus on how original location may be a mechanism that reduces prospects for residential mobility, especially for individuals who grow up in or live for long periods of time in disadvantaged, segregated neighborhoods. Reduced residential mobility out of such neighborhoods could result from decreased upward social mobility opportunities, or more symbolic mechanisms that tie individuals to places over time and generations. Furthermore, the effect of place could be stronger for ethnoracial minorities, so that residential mobility is particularly hard to achieve for these groups.

Hence, while hypotheses about mobility processes are pervasive in these theories, they are difficult to test using aggregate-level, cross-sectional data which cannot observe social

and residential mobility patterns over time and their link to neighborhood outcomes. Herein lies the key contribution of microlevel longitudinal data to segregation research (Massey et al., 1994). Because data is collected on the same individuals over multiple points in time, it is possible to track individuals as they move, or stay in place, throughout the life course. By merging longitudinal data on individuals with neighborhood or city-level data, the types of areas in which individuals move in and out of can be documented in a more precise manner. Furthermore, in addition to identifying different residential mobility trends by ethnic/racial groups, these patterns can be linked directly to other types of transitions (social mobility, marriage, transitions in housing, etc.), to produce a more complete assessment of the mechanisms triggering mobility in and out of segregated or impoverished neighborhoods.

The first studies drawing on longitudinal data to empirically assess the residential trajectories of immigrant or ethnic/racial groups emerged in the 1990s in the U.S. These studies mostly draw on individual level data from the *Panel Study of Income Dynamics* (PSID) merged with census data on neighborhood and metropolitan area characteristics. Massey et al. (1994) are among the first to use panel data to directly challenge the theory of Wilson (1987) that upper class African Americans massively moved out of segregated inner-city neighborhoods, examining the relation between residential mobility, class and upward social mobility. A surge in this empirical approach occurred in the mid-2000s around the work of South, Crowder and colleagues (South and Deane, 1993; South and Crowder, 1997b,a, 1998b; Crowder, 2000; Crowder et al., 2006; South et al., 2008; Crowder and South, 2008; Pais et al., 2009; South et al., 2011; Crowder et al., 2012; Pais et al., 2012). While the majority of these studies look at differences in residential mobility patterns between blacks and whites, a few directly test spatial assimilation patterns for immigrants (South et al., 2005a,b,c, 2008).

These studies come to a number of conclusions about residential mobility and segregation, which I summarize in three points below. These conclusions reflect patterns in residential segregation in the U.S. reviewed in the previous section using dissimilarity indexes. The difference here, however, is that rather than showing correlations at the aggregate level, the mechanisms of neighborhood outcomes are identified at the individual

level.

Racial/Ethnic Patterns in Mobility Outcomes

The first set of findings from these studies documents that residential mobility patterns vary substantially by race. In an early study, South and Deane (1993) find that while racial differences in mobility are small, blacks are still less likely to move net of other factors. The distance of moves is also relative to race: South and Crowder (1997b) show that, compared to whites, blacks have much lower chances than whites of experiencing city to suburb moves and are more likely to move from suburbs to cities, even after controlling for sociodemographic factors.

The major differences between groups, however, lie in the types of neighborhoods they move into. The bulk of these studies show that when African Americans do move, they have substantially weaker opportunities for moving into non-poor neighborhoods with white populations (Massey et al., 1994; Quillian, 2002; South and Crowder, 1998b; South et al., 2008). Examining mobility between poor and non-poor census tracts, South and Crowder (1997a) find that compared to whites, African Americans are more likely to move into poor tracts and less likely to move out of them, net of socioeconomic status. In a similar study, South and Crowder (1998b), this time looking at mobility according to neighborhood racial composition, show that blacks are less likely to move into white areas and more likely to move out, while the opposite is true for whites. South et al. (2005a) find that African Americans have the greatest chances of any group of moving into the poorest areas, while Puerto Ricans and Mexicans are also significantly less likely than whites to leave poor neighborhoods. Finally, Quillian (2003), drawing on longitudinal data including several dates of observation, shows that the immobility of blacks in poor neighborhoods is substantial: the majority of blacks who live in poor neighborhoods will remain there for at least 10 years. He also finds support for patterns of downward mobility among blacks, who are more likely to re-enter poor neighborhoods years after having left them.

Hence, this evidence points to the ways in which diverging mobility patterns across racial groups act as a mechanism that reinforces spatial inequalities.

The Role of Individual Characteristics and Variations by Race/Ethnicity

Beyond describing ethnoracial moving patterns, studies using this approach shed light on the specific individual-level mechanisms of residential mobility. Most of this research draw on the longitudinal dimension of the data to estimate effects of individual covariates measured prior to moving. These studies document classic determinants of residential mobility, such as age, homeownership, marriage, and children. Generally speaking, support for spatial assimilation mechanisms linked to class are also found, as individuals with higher income and education are able to move into neighborhoods with larger shares of whites and enter more affluent areas (South et al., 2008; South and Crowder, 1998b,a; South et al., 2005b; South and Crowder, 1997a). Acculturation effects also come into play, as evidenced by the positive links between length of stay, native-born status and English-language use on moving to white neighborhoods (South et al., 2005b, 2008, 2005c). Evidence has also been found for native partnership (intermarriage) on migration to areas with lower shares of immigrants or minorities (White and Sessler, 2000; South et al., 2005c; Ellis et al., 2006).

However, these factors play different roles across ethnoracial groups. Whereas spatial assimilation theory posits similar effects across groups, social mobility appears to be especially important for racial minorities. Pais et al. (2012) show that the effects of income on entering a less segregated neighborhood are stronger for blacks and Hispanics than for whites. This finding is confirmed elsewhere: South et al. (2008) find that income effects on migration into white areas are stronger for minorities than whites; Crowder et al. (2006) illustrate that the impact of wealth on moving into white neighborhoods is salient particularly among blacks; and Quillian (2002) finds that income has a stronger influence on blacks' mobility than on whites' mobility.

Yet, while the role of class is important to racial minorities, these effects do not fully attenuate neighborhood disparities, as even blacks and Hispanics with the highest incomes still do not enter similar neighborhoods as comparable whites South et al. (2008). Similarly, Crowder et al. (2006) find that differences in wealth only account for a small share of the gap between racial groups in the likelihood of moving into white neighborhoods.

These varying effects of class across racial groups, and the persistent disadvantage of racial minorities once they are controlled for, point to forms of weak and strong stratification highlighted by Logan and Alba (1993).

Finally, Massey et al. (1994) specifically link upward social mobility with upward residential mobility. They find that for poor whites, upward socioeconomic mobility is higher among geographically mobile groups compared to those who don't move. For poor blacks, not only is upward class mobility lower, but moving does not appear to promote social mobility. Hence, there is a stronger link for whites between upward social and geographic mobility opportunities than for other groups.

The Role of Contextual Characteristics and Race/Ethnicity

A third major contribution of these studies relates to findings about the role of contextual characteristics on residential mobility and the ways in which these interact with race/ethnicity. The contextual determinants of mobility operate at different levels, including the neighborhood and the larger metropolitan area, and shape mobility trajectories among whites and blacks in different ways.

At the level of the metropolitan area, the share of ethnic/racial groups in the broader urban area appears to impact minorities' mobility in particular. South et al. (2005b) find that Hispanics who reside in metropolitan areas with higher shares of Hispanics are less likely to move into white neighborhoods. South and Crowder (1998b) show that blacks' migration into white neighborhoods is negatively associated with the overall share of blacks in the metropolitan area, and positively associated with the availability of new housing. Furthermore, South and Deane (1993) link blacks' mobility with residential segregation, showing that blacks are less likely to move when residential segregation in the metropolitan area is high. Pais et al. (2012) document how metropolitan-level ethnora-
cial composition, the share of immigrants and poverty rates shape whites' and blacks' neighborhood attainment in different ways. In most metropolitan areas, minorities are at a disadvantage in their ability to convert socioeconomic status rewards into less disadvantaged neighborhood outcomes, pointing to place stratification. In other urban areas, minorities with high economic status achieve residence in similar areas to whites with

equivalent income levels, pointing to spatial assimilation. Thus, the predictive power of spatial assimilation and place stratification patterns may vary substantially depending on the larger urban areas in which minorities are embedded.

Finally, these studies point to neighborhood “effects” on whites’ mobility that provide widespread support for theories of white flight or white avoidance of neighborhoods with large shares of minorities. Increasing shares of ethnoracial minorities in the original neighborhood is positively correlated with whites’ out-migration, controlling for other characteristics of the neighborhood (Quillian, 1999; Crowder, 2000; Quillian, 2002; Pais et al., 2009).

Residential Mobility Studies In France and Europe

In France, very few studies have evaluated differences in mobility patterns between immigrants and the French majority.¹⁴ An early study from Bonvalet et al. (1995) shows relatively high residential immobility in the Paris region among foreigners. In a recent study that most closely approaches the strain of residential mobility studies in the U.S., Rathelot and Safi (2014) use panel data to explore mobility patterns among immigrants and natives. Their findings show restricted out-mobility of immigrants from cities with high shares of co-ethnics, suggesting that constrained out-mobility from immigrant areas is sustaining spatial inequalities. However, evidence of a “French native flight” is not fully confirmed. Using longitudinal data at the neighborhood level, Pan Ké Shon (2010) has found that African immigrants have a lower probability of exiting disadvantaged neighborhoods, and net of socioeconomic factors, are more likely to move into them. Other research shows that immigrants’ mobility patterns are largely confined within poor neighborhoods, often within the public housing sector, although these studies are less robust due to the use of cross-sectional data with retrospective questions on residential mobility (Barou, 2006; Pan Ké Shon and Scodellaro, 2011).

In Europe, some of the most developed studies on residential mobility come from the Netherlands. Again, not all of this research relies on individual level panel data; some

¹⁴Research does exist however on moving patterns among the general population (Courgeau, 1985; Courgeau et al., 1998; Lelièvre and Bonvalet, 1994; Couet, 2006).

use cross-sectional data with information about recent residential mobility, while others look at mobility flows at the level of the neighborhood or city. Bolt and Van Kempen (2010) examine residential mobility from the spatial assimilation perspective and find limited support for the theory, as net of other factors minority groups have a greater risk than native Dutch of moving into areas concentrating high shares of minorities. Still, like findings from South and colleagues, income and education are positively associated with moving into native Dutch neighborhoods, and these effects are stronger for minorities than natives. Investigating migration out of disadvantaged neighborhoods, Bolt and Van Kempen (2003) similarly find that minorities exhibit a lower ability to escape poor neighborhoods than native Dutch. Van Ham and Clark (2009) explore mobility patterns both at the level of the individual and at the aggregate level of the neighborhood: the former analysis shows that minority groups are overall less mobile than Dutch natives, while the latter indicates that neighborhood out-migration is positively related to higher shares of available housing and ethnoracial minorities in the neighborhood.

Similar research from Scandinavian countries has focused on mobility out of disadvantaged neighborhoods in particular. Andersson and Bråmån (2004) find evidence that mobility in such areas is highly dependent on socioeconomic status, with greater entry among the unemployed and welfare receivers and greater exits among higher income categories. The contrasting mobility of high and low socioeconomic groups points to a bolstering of socioeconomic segregation. Assessing mobility of immigrants out of segregated areas in Stockholm, Macpherson and Strömgren (2013) finds some support for spatial assimilation, shown in the positive effects of higher education and income, native partnership and length of stay in the country on moving out. Finally, Clark and Drever (2000) use panel data from Germany to show higher mobility rates among the foreign-born population compared to natives.

White flight or white avoidance patterns are also observed in European contexts. Bolt et al. (2008) show that compared to ethnic minorities, native Dutch are more likely to move out of neighborhoods concentrating ethnic minorities and more likely to move into neighborhoods with native Dutch. Evidence of white flight and segregative mobility patterns in the Netherlands is also shown by Van Ham and Clark (2009) based on individual

level data showing that as the share of minorities in the neighborhood increases, natives are more likely to move. Bråmås (2006) also investigates whether the white flight hypothesis can account for the increase in immigrant concentration witnessed in Sweden in the 1990s and finds that “Swedish avoidance” patterns, or reduced in-mobility of natives into immigrant neighborhoods, have contributed to rising segregation. Evidence of possible white flight patterns have also been documented in studies investigating residential mobility aspirations. Van Ham and Feijten (2008) examine how neighborhood characteristics - both socioeconomic and ethnoracial - impact people’s desire to leave their neighborhood.

1.3.3 The Intergenerational Dynamics of Spatial Inequalities

The emergence of the neighborhood effects literature has triggered interest among sociologists to investigate the durability of spatial outcomes, not just over time, but also across generations. Applying methods similar to those used to explore intergenerational social mobility, new findings have been brought to light regarding the reproduction of spatial inequalities between parents and their children.

One of the first attempts to explore the transmission of neighborhood disadvantage comes from Vartanian et al. (2007). Drawing on sibling-paired longitudinal data from the U.S., and using multiple indicators of neighborhood quality, the authors find that not only are blacks disproportionately exposed to neighborhood disadvantage as children, but that neighborhood disadvantage in childhood is a significant positive predictor of neighborhood disadvantage as an adult. A key development in this research comes from the work of Sharkey (2013, 2008, 2015), again drawing on longitudinal data from the U.S. Sharkey’s findings provide an insightful measure of the durability of neighborhood disadvantage. He estimates neighborhood income elasticity, or the correlation between child and adult neighborhood poverty, and shows that more than half (64%) of neighborhood disadvantage/advantage is inherited from the previous generation. Sharkey further illustrates that the correlation between neighborhood characteristics in childhood and adulthood cannot be attributed to family socioeconomic background only.

Sharkey also focuses on whether reproduction of neighborhood poverty is stronger

among African American or white families. He finds strong correlations between child and adult environments, but shows that the reproduction of disadvantage varies substantially by race. 70% of black children who grow up in the 25% poorest neighborhoods remain there as adults. Among whites, not only is the reproduction of affluence more common, but the risk of remaining in the most impoverished neighborhoods is much lower: only 40% of whites remain in the poorest 25% of neighborhoods. Another important piece of evidence from this study is that child neighborhood disadvantage among African Americans helps explain a large share of inequalities between racial groups in neighborhood poverty during adulthood: Sharkey estimates that about 60% of current inequality in neighborhood poverty can be accounted for by inequality that is transmitted from the previous generation.

In his most recent study on the intergenerational transmission of residential patterns, Sharkey (2015) traces geographic mobility across several generations of African American families, and shows that strong geographic immobility is a characteristic of African Americans that is strongly transmitted over time.

In Europe, only one study to my knowledge examines the intergenerational transmission of disadvantage. Van Ham et al. (2014) use individual-level longitudinal data on the Swedish population and sequencing techniques to trace residential histories from childhood to adulthood in poor neighborhoods. One of the added values of their analysis is that they are able to assess the durability of the effect of childhood neighborhoods over the life course, drawing on multiple dates of observation during adulthood. They show that the correlation between neighborhood poverty during childhood and adulthood continues to be strong even up to 18 years after leaving the parental home. Furthermore, they find that the length of exposure to poor neighborhoods is highest for ethnic minorities.

* * *

These three approaches to the study of immigrants' spatial incorporation lay the foundation for the empirical contributions of this dissertation. In the next chapter, I present

the data and methods used to analyze immigrants' neighborhood and housing outcomes, residential mobility patterns and the intergenerational reproduction of spatial inequalities in France.

Chapter 2

Measuring Immigrants' Spatial Incorporation in France: Methodological Approaches

In this chapter, I present my methodological approach to the study of immigrants' spatial incorporation in France. I first provide an overview of the two data sets used, the cross-sectional survey *Trajectoires et origines* (*TeO*, INED/INSEE 2008) and the French panel *Echantillon démographique permanent* (*EDP*, INSEE 2008), and provide a discussion of the specificities, contributions and limits of each for studying immigrants' spatial incorporation. I continue by presenting, in each data set, the primary spatial measures as well as the procedure used to construct immigrant generation and origin categories. I conclude by presenting a summary of the major families of methods applied in the empirical chapters.

2.1 The Contributions of the Data

2.1.1 *Trajectoires et origines*: A Rare French Survey on Immigrant Incorporation

Trajectoires et origines (TeO) is a cross-sectional survey that was conducted jointly by INED and INSEE¹ in 2008 on approximately 21,000 individuals residing in metropolitan France. TeO was designed with the specific purpose of investigating immigrants and their offspring in France, providing rare information about the migrant histories, social outcomes, cultural practices and life conditions of these understudied populations. The survey is one of the rare French data sources in which both first generation and second generation immigrants can be identified by detailed categories of national origin. TeO's sampling over-represents immigrants and their offspring in order to include minorities who are typically underrepresented or unidentifiable in demographic surveys in France (Beauchemin et al., 2010).

As the survey is specifically tailored to the study of immigrant trajectories, TeO represents a particularly rich source for studying immigrants' spatial incorporation. Spatial outcomes can be analyzed in TeO using numerous contextual variables describing the immigrant composition and socioeconomic profiles of respondents' neighborhoods (*IRIS*) and municipalities (*communes*) of residence. Housing tenure, as well as a number of variables measuring housing type, housing conditions, experiences of discrimination on the housing market, and perceived levels of residential segregation, are further included. These residential outcomes can be linked to factors that are of key theoretical importance to the spatial assimilation and place stratification frameworks, but which are rarely available in large scale surveys, such as the national origin of immigrants, the national origin of the parents of immigrant children, and immigrant age at arrival. It is also possible to identify children of mixed couples with one immigrant and one French majority parent. While ethnic/racial categories are not included, as is standard in French national statistics, information about the country of birth and nationality at birth of individu-

¹INED is the French National Institute for Demographic Studies. INSEE is the French National Institute of Statistics and Economic Studies.

als and those of their parents make it possible to construct immigrant origin categories for both first and second generation immigrants, which I take as a proxy for ethnoracial group. Finally, in addition to education, occupational category and employment status, TeO reports individuals' household income per capita, which I use to assess patterns in residential outcomes by socioeconomic status. The availability of a measure of household income represents a major added-value of TeO, given the absence of this information in most large-scale French surveys.

TeO's sample is composed of individuals pulled from the French census. The non-response rate due to refusals or unavailable respondents is around 22%.

2.1.2 *Echantillon démographique permanent*: A Unique Panel in France

The *Echantillon démographique permanent* (EDP) is an ongoing panel that has been conducted in France since 1968 by INSEE. Panel or longitudinal data is data that is collected on the same individuals at different points in time. EDP currently contains data on over 1,000,000 individuals and includes a total of ten dates of observation (1968, 1975, 1982, 1990, 1999, 2004-2014). EDP's sampling is based on day of birth to ensure a representative sample of the French population at any given date. From 1968 to 1999, individuals entered the panel if they were born on the first four days of October of every year. After 2004, the sample was broadened to integrate individuals into the sample who were born on 16 days of the year.

Information on EDP individuals is compiled over time from two main sources: the French census and civil registries on vital events (birth, marriage, divorce, death). New individuals who were born on the above-cited days enter the sample when their birth is recorded in the civil registries, or when they are first observed in the French census. Information concerning EDP individuals is then updated with each new census or as information concerning vital events in the lives of EDP individuals are recorded in civil registries.

The periodicity of the French census has undergone an important change in recent

years, with implications for EDP's collection method. From 1968 until 1999, the French census was conducted on the entire population at an interval of every 7 to 9 years (1968, 1975, 1982, 1990 and 1999). EDP was likewise enriched with new information from the census at this regularity. As of 2004, however, the French census is conducted every year on 20% of the entire population. A cycle of five years is thus required for the census to be completed. Likewise, while EDP data is now updated annually with each new census, 5 years must be complied to obtain a complete additional wave. In addition to the five previous waves (1968, 1975, 1982, 1990 and 1999), I thus compile years 2004, 2005, 2006, 2007, and 2008 to form the sixth wave of the panel. As I describe below, due to variability in the availability and quality of housing and neighborhood variables prior to 1990, I restrict the EDP data set to the three most years of observation: 1990, 1999 and 2008.

The longitudinal nature of EDP presents a major empirical advantage for studying immigrants' spatial incorporation. By drawing on multiple dates of observation collected on the same individuals, patterns in neighborhoods and housing can be analyzed from a dynamic perspective, opening up various avenues of analysis.

First, EDP can be used as a pooled cross-section to assess the evolution of spatial inequalities over time. A pooled cross-section is a type of time series data that is collected on different individuals over time. As EDP follows individuals over time, individuals enter and leave the sample with each new date of observation. Each wave of EDP can thus be analyzed cross-sectionally to analyze outcomes on a nationally representative sample at a give point in time, or in comparison with successive waves. Table 2.1 shows EDP as a pooled cross-section.

Table 2.1 – *EDP As a Pooled Cross-Section*

Year	Freq.	%
1990	226,637	31
1999	245,351	33
2008	266,112	36
Total	738,100	100

Source: EDP 1990-2008 (INSEE). Frequencies show individual/time observations. Sample restricted to individuals aged over 18 living in metropolitan France in cities (communes) of 10,000 inhabitants or more.

Second, the panel dimension of EDP can be exploited more fully by tracking the outcomes of individuals who appear in the panel more than once during the period of analysis. This type of analysis makes it possible to conduct a residential mobility study, identifying the patterns and determinants of transitioning between different types of spaces and housing tenures. Table 2.2 shows EDP as a panel.

Table 2.2 – *Structure of the EDP Panel*

Freq.	%	Year
148,823	33	2008
90,852	20	1990, 1999
73,143	16	1990, 1999, 2008
53,163	12	1990
46,689	10	1999
34,667	8	1999, 2008
9,479	2	1990, 2008
456,816	100	

Source: EDP 1990-2008 (INSEE). Sample restricted to individuals aged over 18 living in metropolitan France in cities (communes) of 10,000 inhabitants or more.

Finally, the longitudinal dimension of EDP can be used to conduct an intergenerational analysis in neighborhoods and housing outcomes. Since EDP follows individuals from birth, observing them as children and then as adults, it is possible to observe individuals' residential trajectories over the life course. This way, it is possible to assess the extent to which individuals experience similar outcomes in neighborhoods and housing as those they experienced during childhood.

Each analytical section drawing on EDP uses the data in these various ways: Section 3.1 of Chapter 3 treats EDP as a pooled cross section to assess evolutions in spatial inequalities over time. Chapter 4 offers a residential mobility analysis using EDP as a panel. Finally, Chapter 5 proposes an intergenerational analysis of neighborhood and housing outcomes.

EDP contains a number of classic sociodemographic variables on individuals and their families. I further merge EDP with contextual data from the French census to obtain a wide range of variables on respondents' neighborhoods (*IRIS*) and municipalities (*communes*) at each date of observation. However, EDP is not as rich as TeO in terms of variables related to migration. Immigrant origin can be identified by combining informa-

tion on respondents' country of birth and nationality at birth. Yet unlike TeO, there is no variable in EDP formally identifying second generation immigrants. I construct a proxy for this category when information on the national origin of EDP individuals' parents is available. This categorization procedure is described in detail in Section 2.3 below.

2.2 Measuring Neighborhood Outcomes

The main administrative territorial divisions in France are, in order of decreasing geographic size, the *région*, *département*, *commune* (municipality) and *IRIS*. As of 2008, Metropolitan France counted a total of 36,569 *communes*. The French *communes* are extremely heterogeneous in terms of population size, ranging from villages of under 50 inhabitants to large cities of over a million inhabitants. Urban areas (*aires urbaines*) are used to refer to large metropolitan areas containing several municipalities. All French municipalities of more than 10,000 inhabitants, and the majority of those with more than 5,000 inhabitants, are broken down into *IRIS*. *IRIS*, a French acronym for “aggregated units for statistical information”, are geographical units based on infra-communal territorial divisions that are comparable to U.S. census tracts. *IRIS* are built so that most of them contain between 1,800 and 5,000 inhabitants. The *IRIS* was implemented by INSEE starting with the 1999 census and is now the most commonly used infra-communal spatial unit. It is used here to analyze outcomes at the level of the neighborhood.

Both TeO and EDP contain a wide range of contextual variables describing the socioeconomic and immigrant composition of respondents' *IRIS*' and *communes* of residence. The data sets also contain the ID code of the *commune*, *département* and *région*. I use the *IRIS* characteristics as the primary dependent variables and include information coded at the level of the *commune* or *département* as controls in the statistical models.

***IRIS* Variables in TeO**

The variables describing individuals' *IRIS* and *communes* are automatically provided in TeO by the data's producers. These variables have been pulled from the 2006 French census and merged on the basis of the respondents' *commune* and *IRIS* ID codes. I use

two of these indicators as dependent variables to measure neighborhood outcomes: the share of immigrants and the share of low-income households out of the overall population of respondents' *IRIS*. For data privacy reasons, however, these variables have been recoded by TeO's producers. Rather than measuring the exact proportions of immigrants and low-income households within each unit, this information is coded in deciles indicating where each respondent's *IRIS* of residence falls within the distribution of these variables across all *IRIS* in France. Furthermore, the *IRIS* ID codes have been removed from the data set so that the specific location of respondents cannot be identified.

This coding leads to a lack of precision in TeO's contextual variables as I am not able to identify the exact share of immigrants and low-income households in respondents' *IRIS*. I am however able to situate the relative position of each respondent's neighborhood within the distribution of these characteristics. I can thus identify, for instance, whether an individual lives in the 10% of neighborhoods with the highest immigrant shares or the 10% of neighborhoods with lowest household incomes.

Figure 2.1 – *Concentration of Immigrants in IRIS of the Urban Area of Paris*

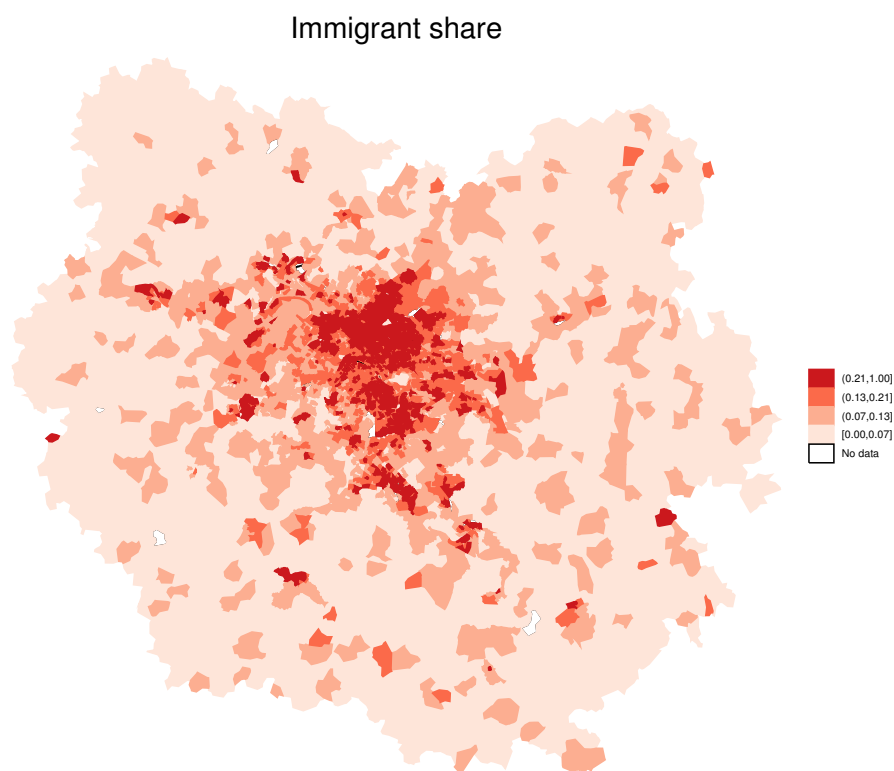


Table 3.3 shows the distribution of these variables. 43% of the sample lives in the top 10% of IRIS with the highest immigrant share, i.e. over 14% immigrant. Since TeO's sampling over-represents immigrant populations, the upper deciles of the neighborhood characteristics' distribution are disproportionately large. Due to the decile coding and the skewed distribution of these variables, I dichotomize them so as to focus on whether an individual lives in the 10% of neighborhoods with the highest immigrant shares or the 10% of neighborhoods lowest household incomes. This choice is also theoretically relevant as it allows me to focus on patterns in neighborhoods with the largest immigrant populations and the most disadvantaged households.

Table 2.3 – *IRIS Characteristics in TeO Measured in Deciles*

IRIS Immigrant Share	Freq.	Weighted %
>0.8%	39	1
0.8%-1.4%	110	2
1.4%-2.0%	165	2
2.0%-2.7%	290	4
2.7%-3.5%	506	6
3.5%-4.6%	726	7
4.6%-6.2%	1,121	11
6.2%-8.7%	1,776	15
8.7%-14.1%	3,147	21
>14.1%	6,352	27
Missing	404	4
Total	14,636	100
IRIS Share of Low Income Households (Euros)	Frequency	Percent
>22,272	2,510	21
19,878-22,272	1,817	14
18,579-19,878	1,170	10
17,626-18,579	1,055	8
16,818-17,626	1,042	8
16,074-16,818	994	7
15,350-16,074	784	6
14,505-15,350	719	4
13,139-14,505	987	6
<13,139	3,558	14
Total	14,636	100

Source: TeO 2008 (INSEE). Sample restricted to individuals aged 18-50 living in metropolitan France in cities (communes) of 10,000 inhabitants or more.

I use the terms “immigrant neighborhood” or “neighborhoods concentrating immigrants” when individuals live in the 10% of neighborhoods with the highest immigrant shares. When referring to the 10% of neighborhoods with the largest shares of low-income households, I use the term “deprived” or “disadvantaged” neighborhoods.

***IRIS* Variables in EDP**

EDP has the advantage of providing greater precision in its contextual-level variables compared to TeO. The IDs of individuals *commune* and *IRIS* are directly provided in the data, making it possible to merge each wave of EDP with the corresponding French census date to obtain information on each location of residence. I can thus directly calculate from the census the precise share of immigrants, the share of immigrants by national origin, the unemployment rate, etc. in respondents' areas.

As mentioned early, the EDP panel spans 1968 to the present. The spatial scale of the *IRIS*, however, was only implemented in 1999. Prior to the *IRIS*, the primarily infra-communal spatial unit used was the *ilôt*. I use the scale of the *IRIS* in 1999 and 2008. In 1990, variables are measured at the level of the *ilôt*. Prior to 1990, the *ilôt* ID codes are not well-documented in EDP, making it difficult to pair the individual data with the census. I therefore restrict all analyses using EDP data to years 1990, 1999 and 2008.

Three continuous dependent variables measured at the *IRIS* are alternately used to describe neighborhood outcomes: the share of immigrants, the unemployment rate, and the share of immigrants of the same immigrant origin as the respondent. In some descriptive analyses, these variables are cut into percentiles to explore the share of immigrants and natives living in the 5%, 10% and 25% of neighborhoods with the highest shares of immigrants, unemployed, and immigrants of the same origin. When referring to the share of immigrants of the same immigrant origin, I use the term "co-ethnic share" or "co-ethnic neighborhood".

2.3 Categorization of Immigrant Generations and Origins

In light of the lack of ethnic/racial categories in French national statistics, information on country of birth and nationality at birth of individuals and their parents is commonly used as proxies for ethnoracial background. Categories of immigrant generations and origins can be identified in both TeO and EDP, albeit using different categorization procedures.

I develop the specificities of each categorization process in detail below.

Categories in TeO

In TeO, the identification of immigrant generations and origins is straightforward, given the availability of variables describing, for each individual, the country of birth and nationality at birth of individuals and their parents. *First generation immigrants* are defined using the official definition of an immigrant in France: members of the foreign-born population who were not French citizens at birth. In this definition, the important criteria are country of birth and nationality at birth. Current nationality is not constitutive of the definition of an immigrant: as such, immigrants may be foreigners or naturalized French citizens. *Second generation immigrants* are defined as individuals with at least one parent who is an immigrant. The key definitional elements in the category of second generation immigrants are thus nativity and mixed background, namely having been born in France of at least one immigrant parent. The *French majority population* refers to individuals who, according to the official definition of an immigrant, are neither themselves immigrants, nor are either of their parents immigrants. The category thus excludes first *and* second generation immigrants to refer to French-born citizens with no observable migratory background, namely whose parents are both French-born citizens.

In addition to these distinctions, I use information in TeO on immigrants' age of arrival in France to distinguish first generation immigrants on the basis of length of stay. First generation immigrants who arrived in France after the age of 16 are referred to as *G1* immigrants and those who arrived prior to the age of 16 are defined as *G1.5*. These categories are theoretically justified by the fact that they capture distinctions between immigrants who spent their childhood in France, and were thus education in the French school system, from those who arrived during late adolescence and adulthood.

Second generation immigrants are also distinguished on the basis of mixed background. Second generation immigrants with two immigrant parents are referred to as *G2*, while those with one immigrant parent and one French majority parent are defined as *G2.5*.

All in all, I identify a total of 4 generational categories (G1, G1.5, G2 and G2.5),

which at once capture the effects of nativity, length of stay and mixed background. Each generation is compared with the French majority to assess assimilation patterns in neighborhoods and housing. While most analyses rely on these categorical distinctions, some descriptive statistics are run on pooled generational categories.

First and second generation immigrants are further identified by their own country of birth, in the case of G1 and G1.5, or in the case of G2 and G2.5, that of their immigrant parent(s). In order to obtain categories with a sufficient number of observations, national origins are aggregated according to geographic proximity. A total of 9 immigrant origin categories are defined: Italy/Spain, Portugal, other Europe (all other European countries excluding Italy, Spain, and Portugal), Algeria, Morocco/Tunisia, Asia (combining Cambodia, Laos and Vietnam), Sub-Saharan Africa (all other African countries excluding Algeria, Morocco, and Tunisia), Turkey, and Other (immigrants of all other origins). When second generation immigrants have two immigrant parents of different origins, the father's origin is used.

Categories in EDP

Unlike TeO, but in line with the large majority of national surveys in France, EDP does not systematically provide information on the national origin of individuals' parents. Second generation immigrant status is thus technically rendered statistically "invisible" within EDP. Yet, due to the longitudinal dimension of the panel, which tracks individuals from birth, it is possible to construct this category for EDP individuals' who participated in the panel as children. For respondents who were observed during childhood, and for those respondents only, variables are provided on the nationality at birth and country of birth of their parents or household heads. In EDP, *second generation immigrants* can thus be defined as individuals who were born in France and who are observed at least once as a child in a household in which at least one parent is an immigrant.

In order to identify EDP individuals who are "children" in a household, it is necessary to refer to a variable in the data set describing the EDP individuals' position within the household. Four positions are possible: father, mother, child or other. However,

this variable is only available starting in 1975, making it impossible to identify second generation immigrants prior to this date. I use all dates in which this variable is available to identify this category. For instance, if an individual is observed as a child in an immigrant household in 1982, and then as a father or mother in a household in 1990, the individual enters the category of second generation immigrant and is considered as such for all dates of observation. Belonging to this category is thus contingent on having been observed in EDP as a child, with the result that individuals with immigrant parent(s) who have entered the panel as adults cannot be distinguished from the French majority population. I discuss the construction of these categories further in Appendix B.

As in TeO, *first generation immigrants* are defined on the basis of the EDP individual's country of birth and nationality at birth: members of the foreign-born population who are not French citizens at birth. I further draw on the variable measuring the position within the household to distinguish between immigrants based on age at migration to France. *G1* refer to first generation immigrants who are never observed in EDP as children in a household. This category is distinguished from *G1.5*, first generation immigrants who have been observed in the panel as children. In the absence of a variable measuring the age at migration in EDP, using the household position variable provides a valuable proxy for measuring length of stay, as *G1.5* immigrants presumably came to France during childhood.

Finally, two generations of the French majority population are defined to enhance comparability with the immigrant categories just described. Members of the *second generation French majority* (*G2*) are French-born citizens who are observed as a child in a household in which neither parents are immigrants. Individuals included in the category *first generation French majority* (*G1*) are defined as French-born citizens who are never observed as children in a household. In this way, I can compare immigrant and majority populations belonging to similar cohorts.

Eleven immigrant origin categories are created on the basis of the national origin of EDP individuals or that of their parent(s). Country of birth is used to identify the origin of first generation immigrants. Second generation immigrants are assigned to an immigrant origin group on the basis of the nationality at birth of the immigrant parent.

If both parents are immigrants with a different national origin, the father's nationality is used. The resulting categories are as follows: Spain, Portugal, Italy, other Europe (all other European countries), Algeria, Morocco, Tunisia, Asia (combining Cambodia, Vietnam and Laos), Turkey, Sub-Saharan Africa, and Other (all other national origins). Individuals for whom an origin could not be assigned due to missing data are excluded from the analysis. In some analyses, more aggregate categories are used (i.e. Europeans versus non-Europeans), which I explain in detail in the sections concerned.

For greater concision and to avoid repetitions, I sometimes use the term “immigrant” to refer to TeO or EDP individuals with a migrant background. “Immigrants” in this sense are distinguished from the “French majority”, or individuals with no observable migrant background. These terms are meant to indicate those populations as a whole, first and second generations combined.

* * *

TeO and EDP are unique and complimentary sources for studying the residential outcomes of immigrants and their offspring. TeO's wealth of variables related to migration that are rarely included in large scale surveys provide an original opportunity to assess the spatial assimilation and place stratification hypotheses, while EDP's panel structure and detailed contextual variables allow for a dynamic view of spatial attainment. This dissertation is the first time both data sets have been used in combination to explore the housing and neighborhood attainments of immigrant origin populations in France.

2.4 Methodological Approaches

The empirical analyses are rooted in various families of regression models. Most analyses rely on basic estimation strategies to model neighborhood and housing outcomes, such as OLS regressions for continuous dependent variables (i.e. the *IRIS* immigrant share), logistic regressions for binary outcomes (i.e. living in the most disadvantaged neighborhoods) and multinomial logistic regression for multi-level categorical dependent variables

(i.e. housing tenure).

In Chapter 3, I pay particular attention to the ways that neighborhood and housing outcomes are interconnected. To model these outcomes together, I use a family of simultaneous equations models enabling two correlated dependent variables to be predicted conjointly. Specifically, bivariate probit models are used to predict two binary outcomes in the same model, such as living in public housing and living in a high concentration immigrant neighborhood. The joint estimation of the dependent variables results in more precise estimations as these models allow the error terms to be correlated (Cameron and Trivedi, 2005). The basic equation is as follows:

$$y_1^* = \beta_1 x_1' + e_1, \quad y_1 = I(y_1^* > 0) \quad (1)$$

$$y_2^* = \beta_2 x_2' + e_2, \quad y_2 = I(y_2^* > 0) \quad (2)$$

Furthermore, predicting these outcomes in the same model makes it possible to explore the joint probabilities of experiencing two outcomes at the same time. I therefore use these models to explore exposure to cumulative disadvantage (living in areas with high concentrations of immigrants and low income households) as well as typologies of neighborhood and housing outcomes.

In Chapter 4, dynamic panel models are used. In this case, I apply binary or multinomial logistic regression models with lagged independent variables, measured in t (x_t), to predict outcomes in $t+1$. These models generally predict a transition between two dates of observation, such as experiencing residential mobility over time. Integrating covariates measured at the first date of observation makes it possible to estimate the odds of an event based on factors that were observed prior to its occurrence. The chronological ordering of dependent and independent variables with panel data helps address some of the bias linked to the simultaneity of predictors and outcomes in classic regression models using cross-sectional data.

Furthermore, for greater robustness, some models in Chapter 3 and Chapter 4 include municipality fixed effects, random effects and individual fixed effects models. Municipality fixed effects consist in introducing individuals' *commune* of residence into the model as a control. In this way, the effects of unobserved characteristics (such as housing and labor

market conditions, housing prices, demographics, etc.) of the broader residential areas are taken into account in the model.²

Individual fixed effects models are a major added-value of panel data. A classic problem in regression models results from endogeneity linked to omitted variables, or factors not included in the model which, when correlated with the independent and dependent variables, produce biased estimations of the coefficients. In fixed effects models, the unobserved and unobservable characteristics of individuals are inherently controlled for, assuming that these characteristics remain stable over time. This is possible due to the longitudinal nature of the data, in which observations are collected on the same individuals over time. Fixed effects models draw on the variation in information collected for the same individual over time, or intra-individual variance, to predict changes in the dependent variable between two dates based on changes in the independent variables between two dates³. If nothing else changes - even factors that are not observed in the model - the difference in y for a same individual over time can be attributed to the change in x (Allison, 2009). The general equation for a fixed effects models is as follows:

$$y_{it} = \mu_t + \beta x_{it} + \gamma z_i + \alpha_i + \varepsilon_{it}$$

Given the panel nature of the data, the terms in the model refer to *individual*time* observations, or variables for one individual at one point in time. In order to be estimated, observations are needed on individuals at more than one point in time. As the model only estimates changes over time, all terms relating to time-invariant factors are eliminated. This includes time-invariant observables included in the model (γz_i) as well as part of the error term, or the time-invariant unobservables (α_i). Hence, these time stable factors relative to individuals are factored out of the model, no longer biasing the estimation of

²When municipality fixed effects are used, the models are restricted to individuals living in municipalities in which at least another individual observation is available as these models require multiple observations within the same municipality. In logistic regression models, the sample size is further reduced to municipalities in which variation in the dependent variable is observed. This is because variation between individuals within the same municipality is needed.

³Because these models draw on intra-individual variance, variation in the independent and dependent variables are required over time for the same individual. Thus, individuals who always experience the same outcome are omitted from the estimation, resulting in a smaller sample size than classic logistic regression models.

the independent variables. As a result however, variables that do not change over time but are observed (like gender, immigrant status) cannot be estimated in these models.⁴

In the analysis of housing and neighborhood outcomes, these models allow for a more precise estimation of the impact of the predictors of residential attainment. For instance, I pay particular interest to class mechanisms, measured in the models by occupation or income. However, it is difficult to distinguish occupation and income from other factors that might be correlated with them and which also influence spatial outcomes, such as wealth or socioeconomic background. If we consider that these factors are relatively stable for individuals over time, their effects will be accounted for in fixed effects models, thereby reducing the bias in the estimation of the coefficients related to occupation and income.

I provide further details on the specific models in each chapter.

⁴In the fixed effects models, I do not use lagged independent variables as this requires more than two observations over time.

Chapter 3

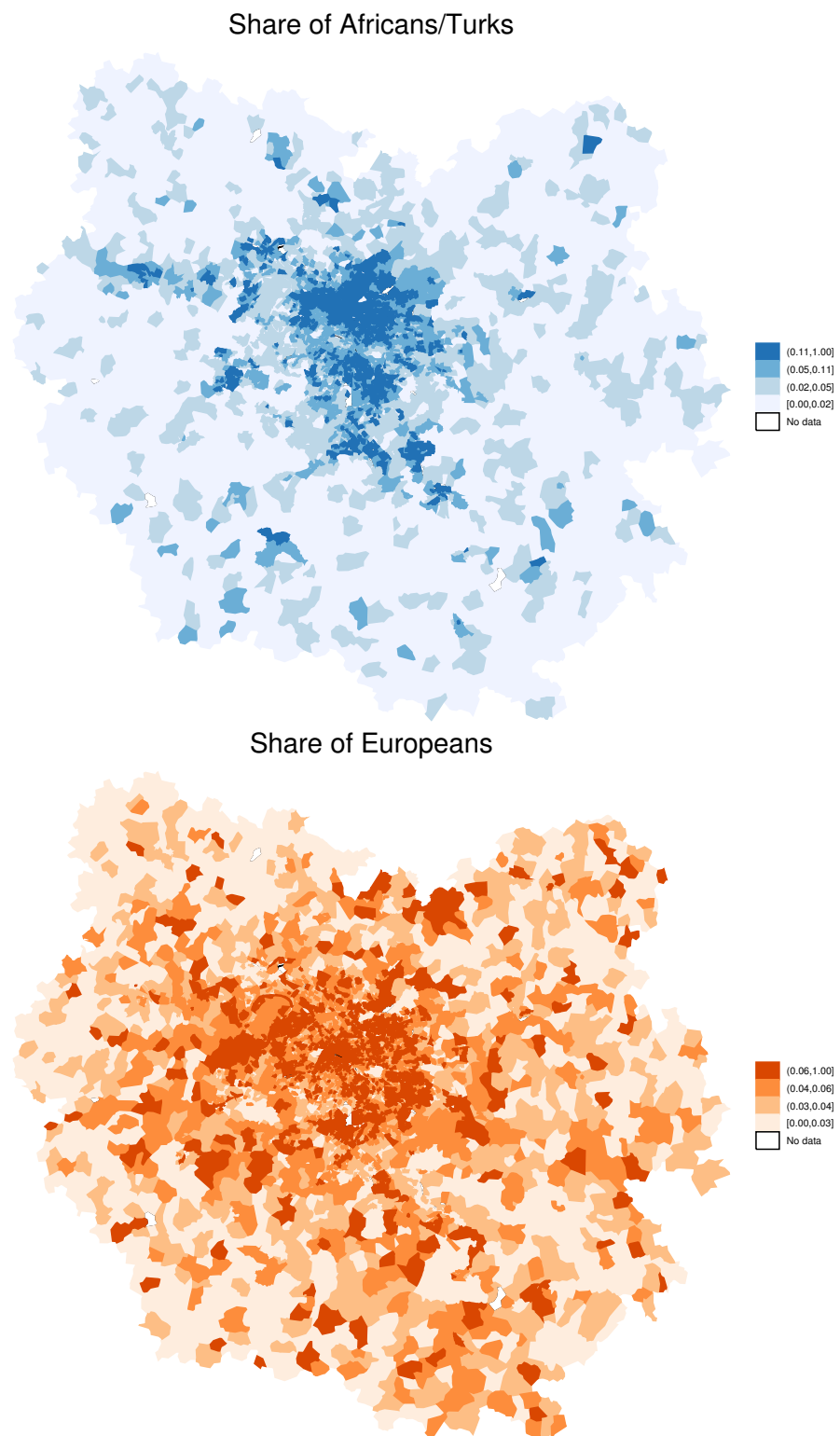
An Overview of Immigrants' Spatial Incorporation in France

Introduction

In France, immigration, spatially concentrated disadvantage, and the public housing sector are tightly embedded in popular representations of the *banlieues*. The convolution of these factors can be traced to the specific history of France's peripheral urban areas. As France shifted towards post-colonialism, these suburbs increasingly accommodated immigrants and their families, many of which came to France under the impulse of pro-migration programs (Spire, 2005). First concentrated in slums, during the 1970s and 1980s, at the initiative of urban policies, immigrants and their families entered the older, lower-quality public housing estates in large numbers (Pinçon, 1981; Bernardot, 1999). By the 1990s, neighborhoods with substantial public housing became increasingly stigmatized for cumulating both socioeconomic disadvantage and a high share of minorities. Crippled by intense de-industrialization and high socioeconomic disadvantage, these areas have become the site of most of the social unrest of the past decades, particularly the urban riots of 2005, and have received growing attention in the political sphere and the media.

While quantitative studies on these questions have only emerged recently, the existing evidence suggests a non-European/European divide in spatial outcomes. The body of pivotal quantitative studies published in the late 2000s have revealed that non-European immigrants have the highest levels of segregation from French natives (Préteceille, 2009; Safi, 2009; Verdugo, 2011; Pan Ké Shon, 2011; Pan Ké Shon and Verdugo, 2015), and some of this research points to rising levels of segregation for some groups (Préteceille, 2009; Safi, 2009). Similarly, research on the housing tenure outcomes of immigrant origin groups indicates that non-Europeans, especially from Africa and Turkey, are also at the greatest risk of being concentrated in public housing (Simon, 1995; Verdugo, 2011; Fougère et al., 2013). Finally, though rare, quantitative studies exploring neighborhood disadvantage show that Africans exhibit the greatest exposure to deprived areas (Pan Ké Shon, 2010).

To contextualize these questions, Figure 3.1 provides a glimpse of the concentration of immigrants in neighborhoods (*IRIS*) in the urban area of Paris. Stronger concentrations of African and Turkish immigrants are found in the center of the urban area, mostly in the northern and southern peripheries of the center of Paris. On the other hand, Europeans

Figure 3.1 – *Concentration of Immigrants By Origin in IRIS of the Urban Area of Paris*

Source: French Census (INSEE) 2008.

appear to be more evenly distributed across space, with high shares towards the center, but also pockets of concentration areas throughout the wider urban area.¹

The aim of this chapter is to provide a comprehensive and interrelated view of various dimensions of spatial inequalities - segregation, housing and neighborhood disadvantage. Drawing on several indicators of the immigrant composition and socioeconomic makeup of local areas, I use recent data from the *Echantillon démographique permanent* (EDP) and *Trajectoires et origines* (TeO) surveys to assess the patterns and determinants of neighborhood (*IRIS*) and housing tenure outcomes of immigrants and their offspring in France. Following theoretical insights from models of immigrants' spatial incorporation, the analysis proposed in this chapter hopes to make three broad contributions.

First, using EDP, I assess temporal dynamics in disparities in neighborhood outcomes between immigrants and the French majority over time (Section 3.1). Second, using TeO data, I provide a systematic assessment of spatial assimilation patterns in neighborhoods and housing tenure linked to migration factors, immigrant origin and socioeconomic status (Section 3.2). The final contribution of this chapter is to analyze, again with TeO data, these various dimensions of immigrants' spatial outcomes in relation to one another (Section 3.3).

These analyses are grounded in hypotheses from spatial assimilation and place stratification theories. The first set of hypotheses concern spatial assimilation patterns and inequalities linked to immigrant origin. According to the spatial assimilation theory, the risk of living in neighborhoods concentrating immigrants and disadvantage should decrease over time as immigrants become integrated into French society. Migration factors (such as immigrant generation, and age at migration) and socioeconomic status are the driving mechanisms of neighborhood and housing disparities between immigrants and the French majority. Specifically, I expect to find lower concentration in immigrant and disadvantaged neighborhoods, as well as greater access to homeownership and lower concentration in public housing, as a function of these factors.

On the other hand, following the place stratification perspective, immigrant origin may be decisive to residential outcomes, resulting in different patterns of neighborhood and

¹More maps are provided in Appendix A for the urban areas of Marseille and Lyon.

housing attainment across groups. From this standpoint, spatial assimilation patterns may not be observed for all immigrant origin groups. If non-European immigrants face greater disadvantage on the housing market, they may continue to live in neighborhoods with higher shares of immigrants and greater levels of disadvantage than the French majority over time. Net of other factors, non-Europeans will exhibit higher concentration within immigrant and disadvantaged neighborhoods, lower access to homeownership and be over-represented within public housing. Moreover, in light of the weak and strong versions of stratification (Logan and Alba, 1993), the salience of socioeconomic factors in the spatial assimilation process may vary across immigrant origin groups as well.

While I present these hypotheses in a distinct manner, I do not exclude the possibility that signs of spatial assimilation and place stratification may coexist. Spatial assimilation into homeownership may be occurring for immigrants, even if the latter continue to live in neighborhoods concentrating immigrants or disadvantage. Moreover, some groups may continue to live in neighborhoods with high shares of immigrants, but which are relatively advantaged spaces. Investigating the different ways in which various aspects of residential outcomes intertwine constitutes a major aim of this analysis, for which I advance a second set of hypotheses. If spatial assimilation patterns occur simultaneously on all residential dimensions, access to neighborhoods with low shares of immigrants should overlap with living in areas with lower disadvantage. Similarly, living in public housing is expected to coincide with living in the highest concentration immigrant neighborhoods. Moreover, neighborhood and housing outcomes should overlap in similar ways for all immigrant origin groups.

3.1 Increasing or Decreasing Neighborhood Inequalities?

In this section, I aim to contribute new findings to the debate on the temporal evolution of segregation. The analysis begins by describing trends over time in the share of immigrants and the French majority living in neighborhoods with the highest concentrations

of immigrants and the unemployed. Drawing on the temporal dimension of EDP, I then apply a cohort analysis that traces neighborhood outcomes for one age group over three years of observation (1990, 1999 and 2008). I further assess whether increases in spatial concentration vary across immigrant length of stay and origin. Finally, I use a modeling strategy to test whether increases or decreases in the average share of immigrants and the unemployed are observed for the French majority and all immigrant origins alike, or whether different temporal trends emerge across groups.

3.1.1 The Data

I use EDP data from the 3 most recent dates of observation: 1990, 1999 and 2008.² The analysis is further restricted to individuals aged 18 or older living in metropolitan France in municipalities (*communes*) of at least 10,000 inhabitants for whom *IRIS* characteristics are available and for whom an immigrant origin could be identified.

The Samples

Table 3.1 shows the sample by year of observation, treating EDP as a pooled cross section. As EDP is a panel in which individuals may be observed more than once, the total sample size, 738,100, refers to the number of individual/time observations.³

Table 3.1 – *Full Sample by Year of Observation*

Year	Freq.	%
1990	226,637	31
1999	245,351	33
2008	266,112	36
Total	738,100	100

*Source: EDP 1990-2008 (INSEE). The frequencies show $i*t$ observations.*

I first use the full sample of EDP displayed in Table 3.1 to descriptively explore changes over time in the neighborhood outcomes of immigrants and the French majority (Section

²This choice is due to the quality and availability of *IRIS* and housing characteristics for those years as specified in Chapter 2.

³In longitudinal data, individual/time ($i*t$) observations refer to the total number of observations for individuals observed at multiple points in time. If an individual is observed twice over time, this corresponds to two $i*t$ observations.

3.1.2). However, using EDP as a pooled cross section makes it difficult to distinguish true temporal trends in neighborhoods from changes due to sample recomposition over time. Indeed, the characteristics of the sample in 1990 may be substantially different from those in 1999 or 2008. While these compositional differences can be partially controlled in regression models, the issue of sample recomposition poses a particular problem for the analysis of immigrant populations due to immigrant replenishment, or the entry and exit of different migrant waves in the sample over time. These migrant waves may differ on a number of characteristics that would influence neighborhood outcomes, such as the socioeconomic context of arrival, countries of origin, length of stay, and so forth. Temporal trends in neighborhoods could thus be a reflection of the fact that different migrant waves have different characteristics which sort them into different neighborhoods. For this reason, the use of different waves of cross-sectional data over time to assess spatial assimilation patterns can be problematic (Abramitzky et al., 2012).

To provide a more precise analysis of temporal changes by accounting for sample recomposition, I use a second sample that is restricted to one age cohort observed at all three dates of observation (Section 3.1.3). Individuals who are between the ages of 18 and 45 at the first date of observation (1990) and who reappear in the panel in 1999 and 2008 are included in the sample. This restriction produces a total sample size of 45,856 individuals (137,568 $i*t$ observations).

Using the categories described in Chapter 2, I distinguish between two generations of immigrants and the French majority. Table 3.2 breaks down the cohort sample by immigrant generation.

Table 3.2 – *Cohort Sample By Generations of Immigrants and the Majority*

	First Generation	Second Generation	Total
French Majority	49,302	69,114	118,416
	42%	58%	100%
Immigrants	10,023	9,129	19,152
	52%	48%	100%
Total	59,325	78,243	137,568
	43%	57%	100%

Source: EDP 1990-2008 (INSEE). First generation includes G1 and G1.5 categories. The frequencies show $i*t$ observations.

Three categories of immigrant origins are used. “Europeans” include first generation immigrants from all European countries as well as second generation immigrants whose father or mother is an immigrant of those origins. “Non-Europeans” pool together first and second generation immigrants from North Africa (Algeria, Morocco, Tunisia), Sub-Saharan Africa (all other African countries), Southeast Asia (Laos, Cambodia and Vietnam) and Turkey. “Others” include immigrants and their offspring from all other countries.⁴ Table 3.3 displays the cohort sample broken down by immigrant origin. The French majority represents 86% of the sample. Immigrants and their offspring make up 14% of the sample, with a greater presence of Europeans (8%) than non-Europeans (5%).

Table 3.3 – *Cohort Sample By Immigrant Origin*

	Freq.	%
French Majority	118,416	86
Europeans	10,971	8
Non-Europeans	7,152	5
Others	1,029	1
Total	137,568	100

*Source: EDP 1990-2008 (INSEE). The frequencies show i*t observations.*

Variables

Neighborhood outcomes are measured using the share of immigrants, the unemployed and co-ethnics in the *IRIS*. These continuous measures serve as the dependent variables in the models used. In some descriptive analyses, I cut these variables into percentiles to show the share living in the top 5%, top 10% and top 25% of neighborhoods with the highest shares of immigrants/the unemployed/co-ethnics.

In addition to immigrant origin and generation, I also construct a proxy to capture immigrant period of arrival by using the presence of the individual in the panel over time. Drawing on all years of observation, the variable identifies whether the individual was first observed in 1968, 1975, 1982, or 1990 as an indication of their residential history in France. Six categories of period of arrival are constructed: 1) arrived in 1968 or earlier, 2) arrived between 1968 and 1975, 3) arrived between 1975 and 1982, 4) arrived between

⁴Results for this category are not consistently presented or analyzed.

1982 and 1990, 5) arrived between 1990 and 1999 and 5) arrived after 1999. In the cohort sample, only the first four categories apply as individuals are observed from 1990 onwards.

Other variables included in the analysis include education, occupation, marital status, number of children, age, gender, housing tenure, household position, year of observation (1990, 1999 or 2008), the EDP collection year in the last period⁵, and city size. The models also control for the department or municipality of residence.

For more information on the coding of these variables and their distributions, Table 6.2 in Appendix C presents descriptive statistics for all variables on both samples (the full sample and the cohort sample) separately for immigrants and the French majority.

3.1.2 Descriptive Trends in the Evolution of Neighborhood Inequalities

Figure 3.2 displays changes over time in the share of first and second generation immigrants and the French majority living in the top 5%, top 10% and top 25% of the neighborhood immigrant share. The first finding of note is that neighborhood inequalities between immigrants and the French majority are evident in the figure. No matter the date of observation, first and second generation immigrants live in top concentration neighborhoods at consistently higher rates than the majority. In line with spatial assimilation's prediction about the role of immigrant generation, second generation immigrants do appear to live in these high concentration immigrant neighborhoods at lower rates than the first generation. Still, the gap persists between second generation immigrants and the majority, such that the former remain in neighborhoods with higher immigrant concentrations than the latter.

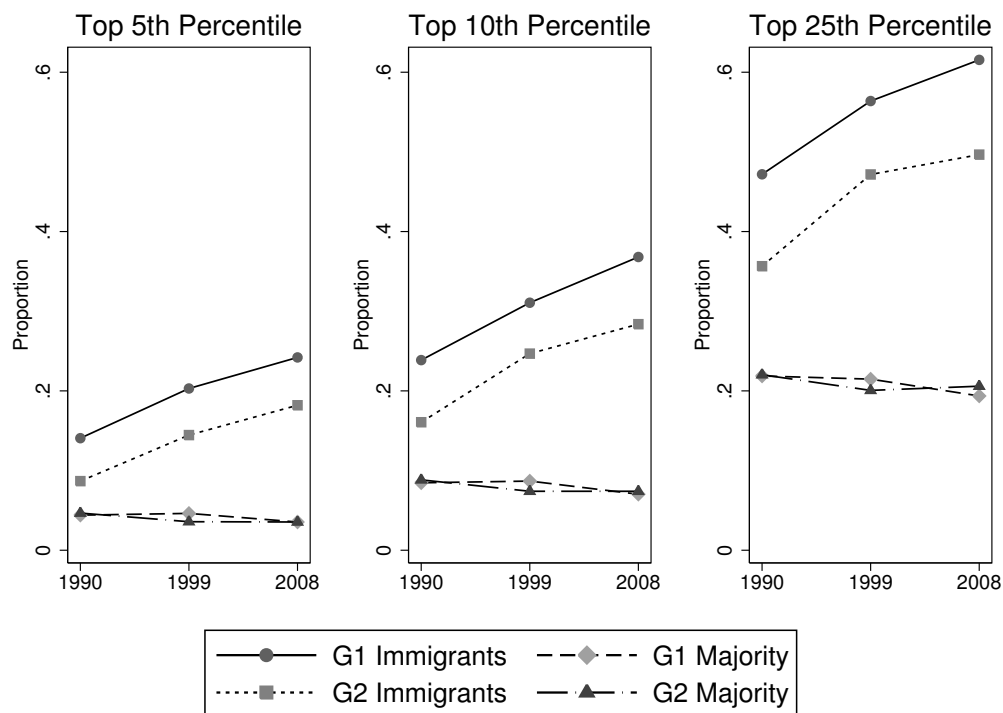
Second, a clear increase is observed over time in the proportion of first and second generation immigrants living in the top percentiles of the neighborhood share. Increases are particularly pronounced in the top 10% and top 25% of the *IRIS* immigrant share, with a difference of nearly 20 percentage points between 1990 and 2008. This type of evolution, however, is not seen for the French majority: the share living in these neighborhoods

⁵As described in Chapter 2, EDP's sampling procedure collects information between 2004 and 2008 to obtain a full wave in 2008. I control for the collection year in the models.

remains constant over time, and even tends towards a slight decline. This unequal pattern between immigrants and the majority over time conveys a growing disparity in the risk of living in the most highly concentrated immigrant neighborhoods over the period. Take, for instance, the share living in the top 25th percentile of the neighborhood immigrant share: in 1990, the share of first generation immigrants is about 25 percentage points higher than the majority, while in 2008 the difference between the two groups rises to about 40 percentage points. While the gap between second generation immigrants and the majority is smaller, the increasing concentration among the former and the flat evolution among the latter reveals temporal dynamics that tend towards increasing inequalities.

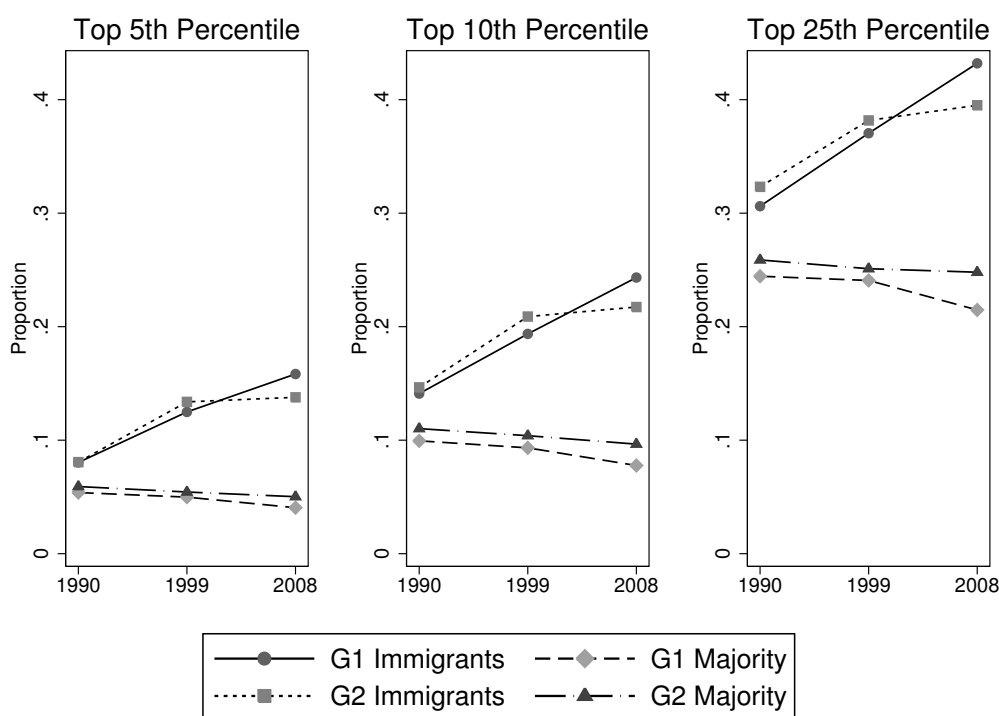
Figure 3.3 proposes a similar analysis to the above, this time exploring changes in the share of immigrants and the majority living in neighborhoods with the highest unemployment rates. Here again, immigrant origin disparities are evident: higher shares of first and second generation immigrants live in the top 5%, top 10% and top 25% most disadvantaged neighborhoods compared to the majority. What's more, increasing shares

Figure 3.2 – *Evolution of the Share of Immigrants and the Majority Living in the Top Percentiles of the Neighborhood Immigrant Share*



of first and second generation immigrants reside in these neighborhoods over time, while the share of the majority remains stagnant. A difference of only a few points separates immigrant origin groups and the majority living in the 5% of neighborhoods with the highest unemployment rates in 1990, whereas in 2008, the gap rises to about 10 percentage points.

Figure 3.3 – Evolution of the Share of Immigrants and the Majority Living in the Top Percentiles of the Neighborhood Unemployment Rate



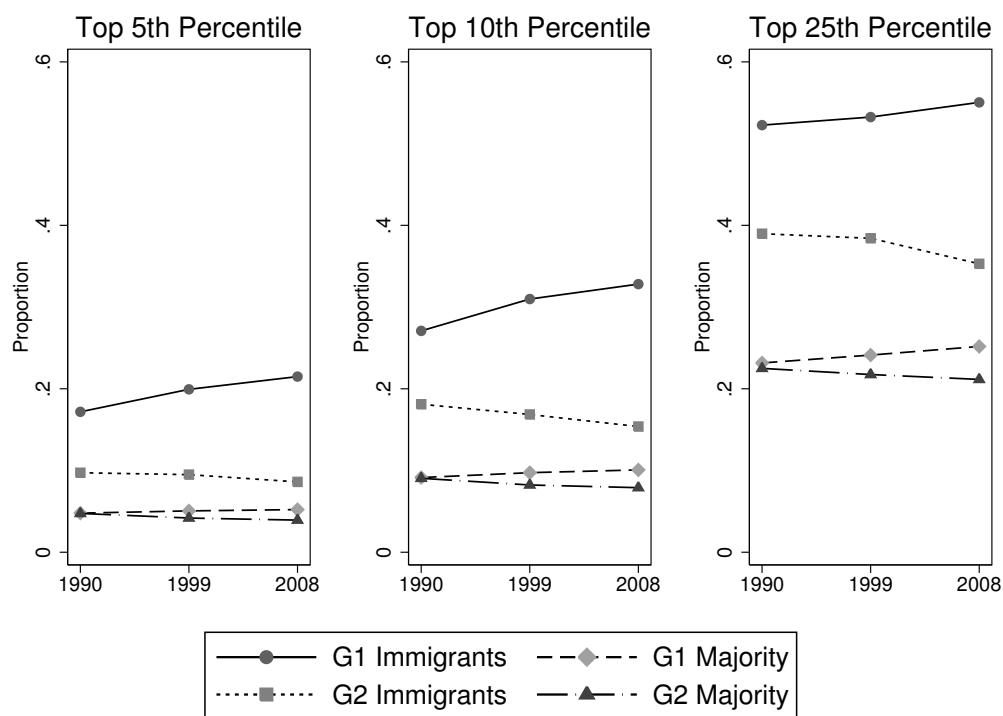
Source: EDP 1990-2008 (INSEE). Analysis is run on the full sample (N=738,100).

The growing disparities observed in *IRIS* outcomes between immigrants and the majority suggest that immigrants are increasingly concentrated in disadvantaged immigrant neighborhoods. However, this trend could merely be a reflection of the changing composition of the immigrant population over the period. In 1990, for instance, European origin immigrants with longer residential histories in France may be overrepresented in the sample, while the 2008 sample may contain immigrants from poorer countries who only recently migrated.

Furthermore, the context of arrival for immigrants observed in 1990 and 2008 may be substantially different, with more difficult labor and housing market conditions for immigrants who arrived most recently. The increased concentration of immigrants within

immigrant neighborhoods may thus be attributed to differences in immigrant cohorts, masking effects linked to the sending countries, contexts of arrival, length of stay and so forth. This issue would not only impact the trends observed for first generation immigrants, but for second generation immigrants as well. Second generation immigrants observed in 1990 may be children of immigrants with longer residential histories in France and more privileged demographic and socioeconomic characteristics than those observed in 1999 or 2008, translating into lower concentration in disadvantaged immigrant areas for the former compared to the latter.

Figure 3.4 – *Evolution of the Share of Immigrants and the Majority Living in the Top Percentiles of the Neighborhood Immigrant Share for the 18-45 Age Cohort*



Source: EDP 1990-2008 (INSEE). Analysis is run on the cohort sample ($N=137,568$).

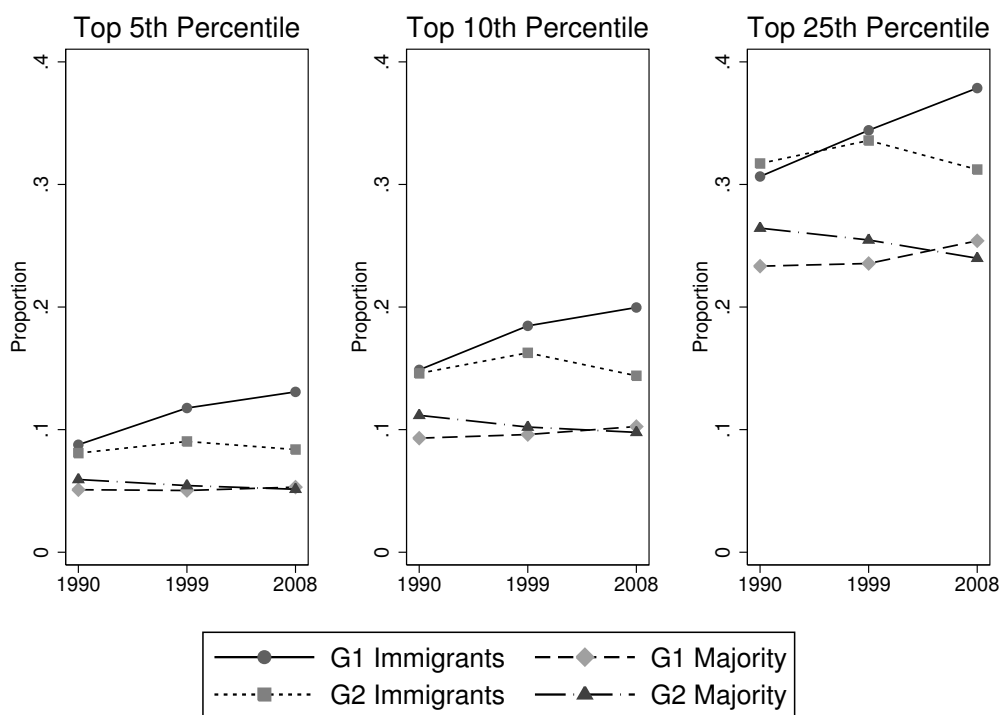
To determine whether the observed rise in neighborhood disparities is linked to the changing composition of the immigrant sample, I conduct a similar descriptive analysis to the above, this time on a restricted sample of individuals aged 18-45 in 1990 and observed again in 1999 and 2008. This restriction allows for an analysis of temporal trends while partially factoring out effects linked to the recomposition of the sample over time.

As shown in Figures 3.4 and 3.5, once again a distinction emerges between immigrant origin groups and the majority, with consistently lower shares of the latter living in the

most concentrated disadvantaged immigrant neighborhoods. Yet, as concerns concentration dynamics over time, a slightly different pattern is observed here. As seen previously, the share of first generation immigrants living in the top 5%, 10% and 25% percentiles of the neighborhood immigrant share and unemployment rate is indeed on the rise, while for the majority, the rates remain quite constant. For second generation immigrants, however, the increase is not confirmed here. The share of second generation immigrants living in the most concentrated immigrant areas tends to change little over time, and in some cases even falls slightly.

Hence, the cohort analysis provides more evidence that neighborhood inequalities are growing between first generation immigrants and the majority. These patterns suggest, contrary to the spatial assimilation hypothesis, that the former may be moving into neighborhoods with higher shares of immigrants and the unemployed over time. While the gap between second generation immigrants and the majority also appeared to be accentuated over time, this trend is not seen in the cohort analysis, implying that the observed in-

Figure 3.5 – Evolution of the Share of Immigrants and the Majority Living in the Top Percentiles of the Neighborhood Unemployment Rate for the 18-45 Age Cohort



Source: EDP 1990-2008 (INSEE). Analysis is run on the cohort sample (N=137,568).

crease in inequalities may be more strongly related to the changing composition of the second generation category than a true intensification of disparities with the majority. The remaining analyses draw on the cohort sample only.

3.1.3 A Cohort Analysis of the Evolution of Neighborhood Inequalities

Trends by Immigrant Length of Stay and Origin

A central hypothesis within the spatial assimilation theory is that immigrants with longer residential histories in the host country should live in similar neighborhoods to the majority than immigrants who just recently migrated. Most studies assess this factor by distinguishing immigrants on the basis of year of arrival or age at migration. Often, however, this effect is difficult to assess due to the confounding effects of length of stay (i.e. years spent in the country) and period effects (i.e. the context in which immigrants arrived in France). Using a cohort analysis, it is possible to more thoroughly distinguish patterns linked to length of stay and those linked to period.

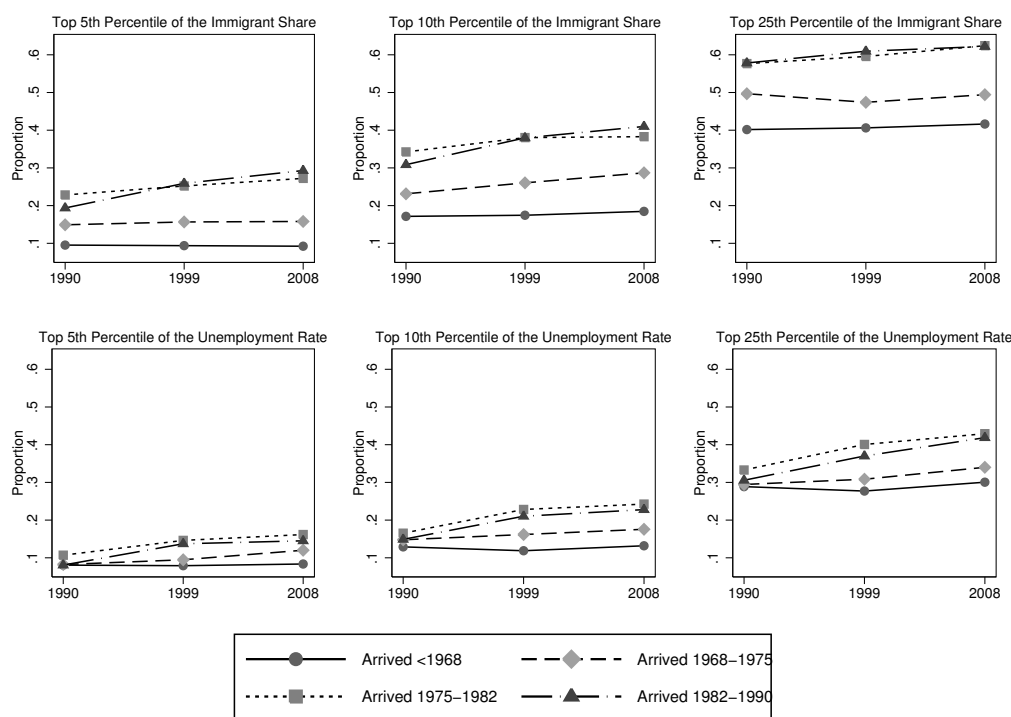
Figure 3.6 tracks the share of first generation immigrants living in the top concentration *IRIS*, as measured by the immigrant share and unemployment rate, by year of arrival in France. At first view, length of stay does appear to matter, with the lowest neighborhood concentrations found for the earliest waves of immigrants. The categories of immigrants who arrived most recently in France, namely between 1975 and 1982 and between 1982 and 1990, live in the top percentiles of the neighborhood immigrant share and unemployment rate at greater rates than those who arrived in France earlier than 1975. A smaller but noticeable gap also distinguishes immigrants who arrived between 1968 and 1975 from the earliest wave. While patterns are similar on both *IRIS* indicators, disparities linked to year of arrival are less pronounced in neighborhoods concentrating unemployment. Moreover, on this indicator, immigrants arriving in the period 1975-1982 appear to be even more disadvantaged than those arriving between 1982-1990.

However, the figures are also revealing in that they help distinguish between effects linked to length of stay and period of arrival. In 2008, the category of immigrants who

arrived in 1982-1990 have been in France for between 18 to 26 years. This duration is roughly equivalent to the length of stay of earlier waves, 1968 and 1968-1975, in 1990, as well as to that of the 1975-1982 category in 1999. At equal length of stay, the two most recent waves are still substantially more likely to live in the top concentration areas. From this standpoint, length of stay does not seem to be as salient for spatial incorporation as period of arrival, with clearly higher levels of immigrant concentration and disadvantage for those who migrated in the later periods.

Length of stay can also be assessed by observing the evolution over time for each category. Following spatial assimilation, we should observe declining shares of all immigrants living in the top concentration *IRIS* as they accumulate years of residency in France. However, this does not appear to be the case. For the wave of migrants who arrived prior to 1968, the proportions remain fairly constant on both indicators over time. For all other categories, contrary to expectations, there is an observed increase over time in the share living in neighborhoods with the highest shares of immigrants and the unemployed. The

Figure 3.6 – *Evolution of the Share of Immigrants Living in the Top Percentiles By Length of Stay*

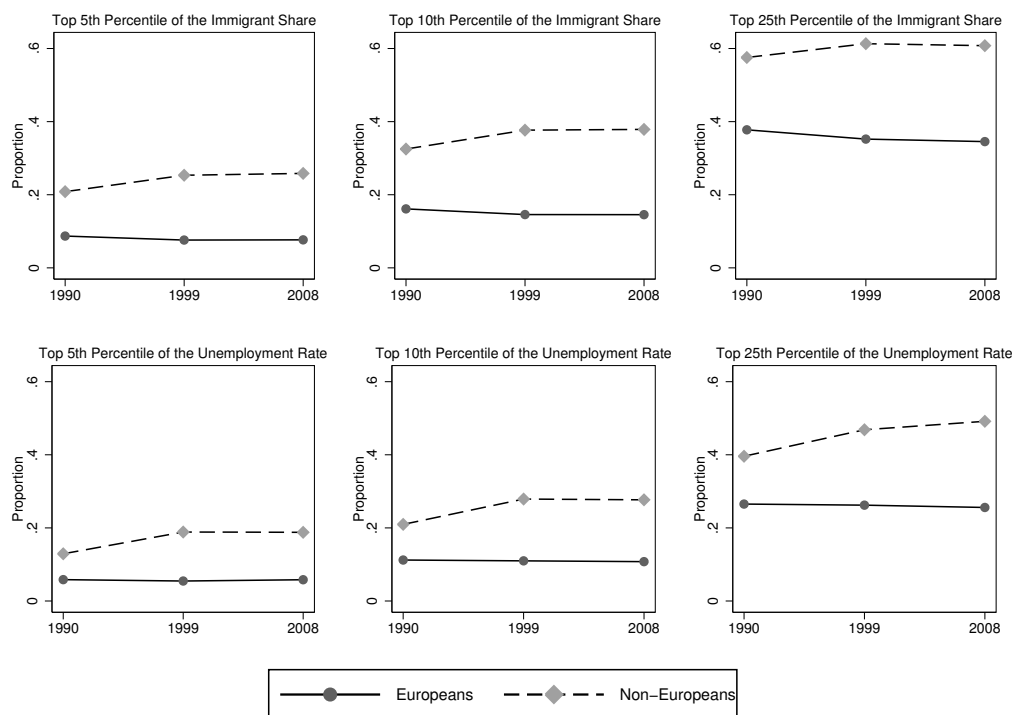


Source: EDP 1990-2008 (INSEE). Analysis is run on the cohort sample (N=137,568).

rise is sharpest for those with the shortest residential histories in France (1975-1982 and 1982-1990).

The last descriptive analysis proposed here seeks to assess whether the observed increases in spatial concentration found for first generation immigrants is shared equally across all immigrant origin groups. Figure 3.7 exhibits temporal trends in the share living in the top 5%, top 10% and top 25% concentration *IRIS*, once again for the two indicators, but this time distinguishing between non-European first and second generation immigrants and European first and second generation immigrants. The findings show that, regardless of the *IRIS* indicator, disparities between immigrants linked to origin are striking. At every date of observation, non-Europeans are substantially more concentrated in the top percentiles of the neighborhood immigrant share and unemployment rate. What's more, these shares are on the rise for first and second generation immigrants of non-European origin, while the share of European immigrants and their offspring living in similar areas remains stable, and even declines slightly. To take an example, the share of non-Europeans living in the top 10% of neighborhoods with the highest shares

Figure 3.7 – *Evolution of the Share of Immigrants Living in the Top Percentiles By Origin*



Source: EDP 1990-2008 (INSEE). Analysis is run on the cohort sample ($N=137,568$).

of immigrants rises from about 30 to 40% over the period, while for Europeans it stays constant at about 15%; a similar evolution is observed in the share living in the top 10% of neighborhoods with the highest rates of unemployment. The increase in neighborhood disparities between immigrants and the majority thus appears to be disproportionately impacting non-Europeans.

Modeling the Evolution of Neighborhood Disparities

The trends documented above highlight increasing disparities in neighborhood outcomes between the majority and first generation immigrants, particularly of non-European origin. These patterns may be the reflection of growing disparities between these groups on individual-level characteristics. An alternative interpretation is that these increases do not capture growing *neighborhood* disparities, but rather rising populations of immigrants and the unemployed in the cities in which immigrants primarily live over the period.

To try to address each of these possible explanations, I apply a series of OLS regression models using three *IRIS* characteristics as dependent variables. Model 1 predicts the average *IRIS* immigrant share, Model 2 predicts the average *IRIS* unemployment rate and Model 3 predicts the average *IRIS* share of co-ethnics. The independent variable of interest is year of observation (1990, 1999 and 2008), which I interact with immigrant origin to assess whether the rise in the average share of these neighborhood characteristics over time impacts all groups equally. I compare these interaction terms across three different model specifications. The basic specification (a) includes a number of individual-level controls, including gender, age, age squared, generation (G1, G1.5 and G2), length of stay, education, occupational status, marital status, number of children, housing tenure, position within the household, municipality size, and department of residence. The second specification (b) controls for municipality (*commune*) fixed effects, capturing any unobserved characteristics of individuals' broader residential areas. The final specification (c) introduces individual fixed effects to control for unobserved or unobservable characteristics of individuals. Full model results are presented in Table 6.3 and 6.4 in Appendix C.

Table 3.4 tracks the interaction term between year of observation and immigrant origin

across each model specification. Let's first explore the predicted mean immigrant share in the *IRIS* (Columns 1-3). Net of individual level controls, significant increases in the average immigrant share are found for the French majority, and non-Europeans. Among European immigrants, the coefficient is negative. Though not significant, this suggests that these groups live in areas with lower average neighborhood immigrant shares over time. Column 2 reports the interaction terms once municipality fixed effects are controlled for. Once again, significant increases are observed in the average share of immigrants in the local areas of the French majority and non-Europeans. Hence, the observed increases found for these groups cannot be attributed to municipality characteristics. Moreover, a significant increase is now observed for Europeans in 2008. Finally, Column 3 confirms the findings controlling for individual fixed effects. Increases over time in the average share of immigrants in the neighborhoods of the majority population and of non-Europeans are still significant in these models. Yet, no matter the specification, the coefficients found for non-Europeans tend to be stronger, revealing the most pronounced rise for this group.

Are increases over time in the average unemployment rate of the neighborhood found for all groups? Net of individual factors (Column 4), all groups show significant increases with each year. Once again, taking into municipality characteristics (Column 5) or individual fixed effects (Column 6) into account does not alter this basic finding. As observed for the neighborhood immigrant share indicator, the strongest increases over time in the neighborhood unemployment rate are observed for non-Europeans.

Finally, Columns 7-9 show the interaction term from the model predicting the average share of co-ethnics in the neighborhood. In this case, diverging patterns are found across origins. Compared to 1990, non-Europeans live in neighborhoods with higher shares of co-ethnics in 2008, while Europeans live in areas with lower shares of co-ethnics in both 1999 and 2008. The effects of municipality characteristics or individual unobserved or unobservables can be ruled out, as the patterns remain constant in the specifications in Columns 8 and 9.

These findings thus provide evidence in favor of increased immigrant concentration and disadvantage over time, particularly in the neighborhoods in which non-European immigrants live. The greater increases over time observed for non-Europeans result in a

Table 3.4 – Interaction Term Between Immigrant Origin and Year from Models 1, 2 and 3 Predicting the Neighborhood Immigrant Share, Unemployment Rate and Share of Co-ethnics

	Immigrant Share			Unemployment Rate			Co-ethnic Share		
	M1a	M1b	M1c	M2a	M2b	M2c	M3a	M3b	M3c
<i>Ref: 1990</i>									
Majority#1999	0.003*** (0.000)	0.005*** (0.000)	0.004*** (0.001)	0.031*** (0.001)	0.033*** (0.000)	0.041*** (0.001)			
Majority#2008	0.007*** (0.001)	0.012*** (0.001)	0.009*** (0.002)	0.011*** (0.001)	0.016*** (0.001)	0.029*** (0.002)			
Europe#1999	-0.001 (0.001)	0.002 (0.001)	-0.004*** (0.001)	0.031*** (0.001)	0.033*** (0.001)	0.000 (0.001)	-0.003** (0.001)	-0.004*** (0.001)	-0.004* (0.002)
Europe#2008	0.002 (0.001)	0.009*** (0.001)	-0.005*** (0.001)	0.011*** (0.002)	0.016*** (0.001)	-0.000 (0.001)	-0.004*** (0.001)	-0.005*** (0.001)	-0.006† (0.003)
Non-Europe#1999	0.002 (0.002)	0.005*** (0.001)	0.000 (0.001)	0.049*** (0.002)	0.051*** (0.002)	0.019*** (0.002)	0.001 (0.001)	0.000 (0.001)	0.004*** (0.001)
Non-Europe#2008	0.012*** (0.002)	0.018*** (0.001)	0.005*** (0.001)	0.026*** (0.002)	0.030*** (0.002)	0.014*** (0.002)	0.004** (0.001)	0.004** (0.001)	0.008*** (0.001)
<i>Controls</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Municipality fixed effects</i>	No	Yes	No	No	Yes	No	No	Yes	No
<i>Individual fixed effects</i>	No	No	Yes	No	No	Yes	No	No	Yes
<i>N (i*t)</i>	135,841	135,174	135,841	135,841	135,174	135,841	17,810	17,731	17,810

Source: EDP 2008 (INSEE).
 *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$. Standard errors in parentheses.

rise over time in neighborhood disparities between this group, on the one hand, and Europeans and the majority on the other. Results from the models also give a first glimpse of some correlates of living in *IRIS* with increased shares of immigrants and the unemployed, most of which provide support for spatial assimilation mechanisms. Higher education and higher occupational status are significantly and negatively correlated with higher shares of immigrants, the unemployed and co-ethnics in the neighborhood. Belonging to the second generation is associated with a significant decrease in the neighborhood share of immigrants, but has no significant relationship to the other neighborhood characteristics. The origin of individuals' spouses is also significantly related to neighborhood characteristics: those married to French majority members have lower shares of immigrants and the unemployed in their neighborhoods, while those married to immigrants have higher shares of immigrants, co-ethnics and the unemployed in their local areas. Unsurprisingly, living in larger municipalities also tends to be positively linked to living in neighborhoods with higher shares of immigrants and the unemployed.

In the sections that follow, I delve further into an investigation of the factors accounting for neighborhood and housing disparities between immigrants and the French majority, this time drawing on data from TeO.

3.2 The Role of Immigrant Generation, Socioeconomic Status and Immigrant Origin

The aim of this section is to provide, using TeO data, a systematic assessment of spatial assimilation factors in neighborhood and housing outcomes. I explore the role of immigrant generation, socioeconomic status and immigrant origin in shaping residence in immigrant neighborhoods and access to housing, with a specific focus on how these factors contribute to neighborhood and housing disparities between immigrants and the French majority population.

3.2.1 The Data

The Samples

The data used in this section come from TeO. I restrict the sample on the basis of age and municipality (*commune*) size. Due to TeO's sampling design, the subsample of second generation immigrants is limited to individuals aged 18-50. I thus restrict the entire sample to respondents included in this age range in order to improve the comparison between first and second generation immigrants (Beauchemin et al., 2010).⁶ I further include in the sample only respondents living in municipalities of at least 10,000 inhabitants for whom *IRIS* characteristics are available. The total sample size is 14,232.

When housing outcomes are analyzed (Sections 3.2.3 and 3.3.2), I further restrict the sample to individuals who are no longer living with their parents. As data in TeO are collected at the individual rather than the household level, respondents may or may not be household heads. This is to ensure that individuals' own housing tenure is measured rather than that of their parents. This restriction results in a sample size of 10,716.

Table 3.5 reports the sample by immigrant generation.⁷ The French majority makes up 71% of the sample. 14% of sample are first generation immigrants, most of which arrived in France after the age of 16 (G1). Second generation immigrants represent 15%

⁶Finally, I apply the sampling weights provided in TeO to account for the over-sampling of immigrant populations.

⁷Further detail on categories of immigrant generations and origins in TeO is provided in Chapter 2.

Table 3.5 – *Sample By Immigrant Generation*

	Freq.	Weighted %
First Generation		
G1	3,489	9
G1.5	1,930	5
Second Generation		
G2	4,104	8
G2.5	2,697	7
French Majority	2,012	71
Total	14,232	100

Source: TeO 2008 (INED/INSEE).

of the sample, with a slightly higher share of children of two immigrant parents (G2).

Table 3.6 breaks down the sample further by immigrant origin.⁸

Table 3.6 – *Sample by Immigrant Origin*

	First Generation	Second Generation
Italy/Spain	161	1,242
	12%	88%
Portugal	391	687
	41%	59%
Other EU	326	497
	48%	52%
Asia	475	522
	48%	52%
Algeria	617	1,190
	38%	62%
Morocco/Tunisia	788	989
	52%	48%
Sub-Saharan Africa	1,141	780
	72%	28%
Turkey	653	398
	75%	25%
Other	867	496
	71%	29%
Total	5,419	6,801

Source: TeO 2008 (INED/INSEE).

I use the deciles of the *IRIS* share of immigrants and low income households as the main dependent variables, as well as housing tenure. The decile variables are dichotomized in the models to predict the probability of individuals living in the top 10% of neighborhoods with the highest shares of immigrants or low income households. Housing tenure is coded in three categories: 1) Homeowner, 2) Renter and 3) Public housing resident. Table 6.5

⁸The second generation category of G2.5 does not apply to Turks due to the low sample size for this group.

in Appendix C displays summary statistics on all variables separately for immigrants and the majority.

3.2.2 Patterns in Immigrant Neighborhoods

Table 3.7 shows the share of first and second generation immigrants and the French majority living in *IRIS* with varying shares of immigrants. The French majority tends to be spread quite evenly across neighborhoods: 20% live in neighborhoods with the lowest shares of immigrants (3.5% or less), and another 20% are located in neighborhoods with the highest shares (14% or more). About 40% live in moderate concentration neighborhoods. The patterns for immigrants are much different. First generation immigrants are overrepresented in the most highly concentrated immigrant areas. 57% live in local areas that are at least 14% immigrant, while more than three quarters reside in areas with a 9% immigrant concentration or more. Only slight differences are observed between immigrants who arrived early in life (G1.5) from those who arrived later (G1), suggesting little variation in neighborhood outcomes based on age of arrival.

Do second generation immigrants have neighborhood outcomes similar to first generation immigrants or similar to the French majority? Nearly half (43%) live in neighborhoods with the highest shares of immigrants. Thus, the second generation is indeed less concentrated in immigrant neighborhoods compared to the first generation. Still, second generation immigrants live in high share immigrant neighborhoods at a rate that is 23% greater than the French majority. Likewise, second generation immigrants are rarely present in neighborhoods that are under 3.5% immigrant: only 5% live in such areas, similar to first generation immigrants.

Acculturation mechanisms linked to intermarriage are also considered pivotal in the spatial assimilation process, and may help account for disparities between second generation immigrants and the majority. From this table, we can also explore the hypothesis that second generation immigrants from mixed marriages have a lower chance of living in immigrant neighborhoods by comparing the outcomes of individuals with two immigrant parents (G2) with those of individuals with one immigrant and one French majority par-

Table 3.7 – *Neighborhood Immigrant Share by Immigrant Generation*

	<3.5%	3.5-9 %	9-14%	>14%
First Generation	3	17	22	57
G1	3	15	23	59
G1.5	4	20	21	54
Second Generation	5	27	25	43
G2	3	22	24	51
G2.5	8	32	26	33
French Majority	20	39	21	20
Total	15	34	22	29

Source: TeO 2008 (INED/INSEE). Table shows percentages.

ent (G2.5). Indeed, disaggregating the second generation immigrant category according to mixed background reveals a sharp distinction between the two groups. G2.5 immigrants are more evenly distributed across neighborhoods than second generation immigrants with two immigrant parents (G2). 51% of G2 live in the most highly concentrated immigrant areas, not much different to the share observed previously for G1 immigrants. G2.5 immigrants, on the other hand, more closely resemble the French majority's neighborhood outcomes, with only 33% residing in local areas with the highest shares of immigrants. G2.5 also have a greater presence in moderate concentration areas and neighborhoods where immigrants are few.

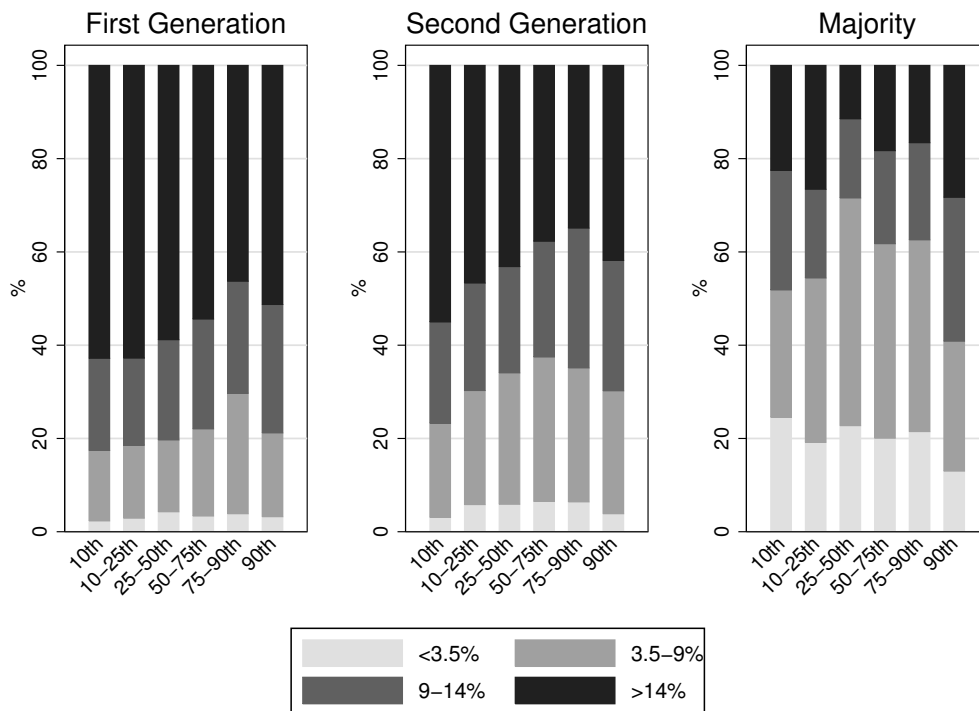
In addition to factors related to migration such as immigrant generation, length of stay and mixed background, socioeconomic status is another mechanism of primary importance within the spatial assimilation perspective. To what extent are the differences observed in neighborhood outcomes between immigrant groups and the French majority linked to disparities in socioeconomic status? Figure 3.8 breaks down the neighborhood immigrant share by income categories separately for first generation immigrants, second generation immigrants and the French majority.

Unsurprisingly, among immigrants and their offspring, the lowest income categories are disproportionately concentrated within neighborhoods with the highest shares of immigrants. The association between increasing income and greater access to areas with lower shares of immigrants is also found for the French majority. However, differences between income categories are not as pronounced as those found for immigrant groups.

Hence, it would seem that higher income is of particular importance to living outside of high concentration neighborhoods for immigrants and their offspring, but does not matter as much for the French majority.

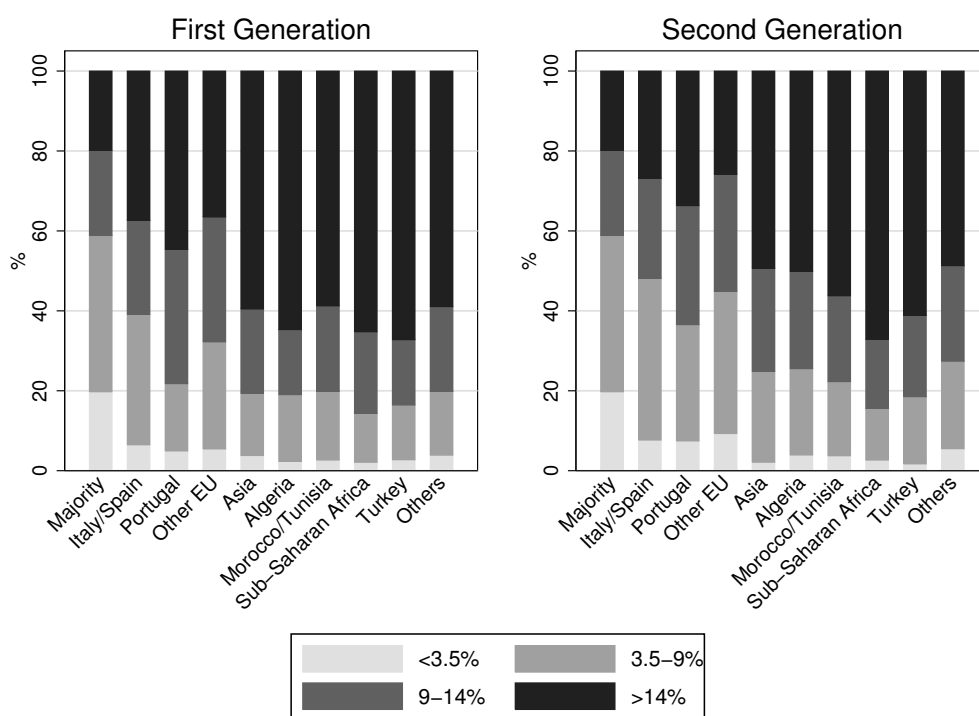
Yet, despite this variation linked to income, stark differences are still found between immigrants, their offspring and the French majority. First and second generation immigrants are consistently more concentrated than the French majority in the upper deciles of the immigrant share at every level of income. Even among the highest earners, about 40% or more of immigrants and their offspring continue to reside in the highest concentration spaces compared to just 25% of the French majority. The gap between immigrants and natives is even stronger at the other end of the income distribution, resulting in the most noticeable disparities for the poorest categories of earners. The most disadvantaged first and second generation immigrants overwhelmingly reside in neighborhoods that are 14% immigrant or more, while comparable majority members rarely live in such neighborhoods. These unequal patterns across groups result in a gap of nearly 40 percentage points between low-income majority members and immigrants.

Figure 3.8 – *Neighborhood Immigrant Share By Income*



The next analysis focuses on the extent to which disparities linked to immigrant origin can account for differences in the neighborhood outcomes of first and second generation immigrants and the French majority. Figure 3.9 displays the neighborhood immigrant share by immigrant origin for first and second generation immigrants.

Figure 3.9 – *Neighborhood Immigrant Share by Immigrant Origin*



Source: TeO 2008 (INED/INSEE)

Regardless of immigrant generation, the figure reveals intense gaps in neighborhood outcomes linked to origin. What's more, these disparities are structured by a clear European/non-European divide. About 60% of first generation immigrants from Asia, North Africa, Sub-Saharan Africa, and Turkey live in the most concentrated immigrant neighborhoods, about 20 percentage points higher than the rate observed for immigrants of European origin. This pattern of stratification is by and large reproduced among the second generation. On the one hand, European second generation immigrants have outcomes that are even more similar to those of the French majority. On the other hand, the gap with natives persists for non-Europeans. For these second generation Africans, Asians and Turks, the chances of living in neighborhoods with the highest shares of immigrants is as high as those seen for the first generation.

To conclude, I test these descriptive patterns of neighborhood outcomes linked to migration factors, socioeconomic status and origin net of controls. I use a general logistic regression model (Model 1) predicting whether respondents reside within the 10% of *IRIS* with the highest shares of immigrants. To grasp generational dynamics, four model specifications are run (a, b, c and d) separately on the four categories of immigrant generations (G1, G1.5, G2, G2.5), including the French majority as the reference category.⁹ The independent variable of interest is immigrant origin. The models also control for gender, age, household income, education, marital status and number of children, housing tenure and municipality size. Two dummies are also included to capture whether respondents are currently unemployed or living with their parents. Table 3.8 posts the full model results, expressed in odds ratios.

Table 3.8 – *Logistic Regression Model 1 Predicting Residence in a High Concentration Immigrant Neighborhood*

	M1a	M1b	M1c	M1d
	G1	G1.5	G2	G2.5
<i>Ref: French majority</i>				
Italy/Spain	3.294*** (0.896)	1.722* (0.449)	1.464** (0.192)	1.290* (0.137)
Portugal	2.802*** (0.530)	2.879*** (0.458)	2.060*** (0.244)	1.184 (0.218)
Other EU	2.370*** (0.353)	1.446 (0.497)	2.199** (0.648)	1.157 (0.153)
Asia	4.755*** (0.822)	3.907*** (0.556)	3.506*** (0.475)	1.528* (0.274)
Algeria	4.807*** (0.649)	3.806*** (0.589)	2.808*** (0.274)	1.842*** (0.241)
Morocco/Tunisia	3.771*** (0.456)	3.800*** (0.542)	3.555*** (0.368)	2.112*** (0.319)
Sub-Saharan Africa	4.847*** (0.507)	4.442*** (0.691)	5.510*** (0.677)	1.883*** (0.311)
Turkey	6.058*** (0.864)	7.620*** (1.197)	4.024*** (0.526)	
Other	4.621*** (0.501)	3.871*** (0.628)	4.221*** (0.668)	1.891*** (0.275)
<i>Gender/Ref: Men</i>				
Women	1.005 (0.067)	1.009 (0.080)	1.179** (0.073)	1.047 (0.077)
<i>Age/Ref: 18-25</i>				
26-35	1.238† (0.158)	1.172 (0.157)	1.128 (0.101)	1.195 (0.137)
36-45	1.167	1.090	1.160	0.986

⁹While this modeling strategy has the drawback of using four different specifications, it facilitates the comparison between immigrant origins and the French majority across generations. An alternative method would be to introduce dummies for each origin/generation category, which presents the disadvantage of producing a large number of categories (11 origins x 4 generations).

	(0.154)	(0.158)	(0.131)	(0.132)
46+	1.201	1.202	1.005	1.097
	(0.171)	(0.200)	(0.151)	(0.170)
<i>Income percentile/Ref: <10th</i>				
10th-25th	1.101	1.009	1.010	0.810
	(0.133)	(0.163)	(0.122)	(0.129)
25th-50th	0.848	0.783	0.951	0.652**
	(0.103)	(0.125)	(0.114)	(0.105)
50th-75th	0.850	0.887	0.923	0.653**
	(0.111)	(0.147)	(0.114)	(0.103)
75th-90th	0.819	0.897	0.984	0.701*
	(0.124)	(0.165)	(0.140)	(0.121)
>90th	1.392*	1.478†	1.508**	1.178
	(0.224)	(0.300)	(0.239)	(0.214)
Unreported	0.842	0.846	1.070	0.803
	(0.127)	(0.161)	(0.137)	(0.143)
<i>Education/Ref: No education</i>				
Primary school	0.845	0.733*	0.821	0.616**
	(0.091)	(0.110)	(0.103)	(0.097)
Professional certificate	0.601***	0.695**	0.690***	0.614***
	(0.073)	(0.084)	(0.072)	(0.083)
Vocational bac	0.631**	0.676*	0.739**	0.547***
	(0.091)	(0.106)	(0.086)	(0.087)
General bac	0.669***	0.681*	0.706**	0.664**
	(0.078)	(0.115)	(0.089)	(0.103)
2 years university	0.540***	0.558***	0.743*	0.620**
	(0.069)	(0.088)	(0.092)	(0.097)
>2 years university	0.530***	0.689*	0.766*	0.709*
	(0.055)	(0.100)	(0.091)	(0.102)
Unemployment	1.018	0.914	0.952	0.848
	(0.083)	(0.096)	(0.075)	(0.087)
Living with parents	1.194	1.134	1.456***	1.046
	(0.193)	(0.162)	(0.152)	(0.131)
<i>Family status/Ref: Single no children</i>				
Single/one child	0.832	0.653*	0.780†	0.655*
	(0.124)	(0.117)	(0.117)	(0.112)
Married/no children	0.880	0.742*	0.725**	0.688**
	(0.106)	(0.112)	(0.087)	(0.088)
Married/one child	0.719**	0.788	0.856	0.738*
	(0.084)	(0.115)	(0.102)	(0.100)
Married/two children	0.867	0.880	0.828	0.710*
	(0.099)	(0.123)	(0.098)	(0.097)
Married/three or more children	0.992	0.808	0.839	0.748†
	(0.120)	(0.123)	(0.119)	(0.124)
<i>Housing tenure/Ref: Private renter</i>				
Homeowner	0.673***	0.906	0.912	0.715***
	(0.057)	(0.096)	(0.075)	(0.068)
Public housing	1.923***	3.009***	2.589***	2.305***
	(0.158)	(0.322)	(0.212)	(0.229)
<i>City size/Ref: 10,000-19,999</i>				
20,000-49,999	3.005***	3.155***	2.199***	2.419**
	(0.817)	(0.892)	(0.488)	(0.690)
50,000-99,999	1.637†	1.218	1.064	1.381
	(0.445)	(0.350)	(0.237)	(0.400)
100,000-199,999	1.237	0.952	0.695	1.085
	(0.343)	(0.283)	(0.165)	(0.324)
>200,000	4.708***	3.587***	2.837***	3.514***
	(1.178)	(0.934)	(0.576)	(0.908)
Constant	0.109***	0.109***	0.106***	0.192***
	(0.033)	(0.036)	(0.027)	(0.062)

Observations	5,501	3,942	6,116	4,709
Source: TeO 2008 (INED/INSEE). Table reports odds-ratios. Standard errors in parentheses.				
*** p<0.001, ** p<0.01, * p<0.05, † p<0.10				

Significant effects of immigrant origin are prominent in all models, testifying to origin disparities regardless of immigrant generation and net of other factors. Among the first generation (G1), all groups are more likely than natives to live in the highest share immigrant neighborhoods. Yet, the odds ratios tend to be the highest for non-European immigrants. Compared to the majority, G1 immigrants from Asia, Algeria and Sub-Saharan African are nearly 5 times more likely, and Turks 6 times more likely, to live in the highest concentration immigrant neighborhoods. For European immigrants, the odds ratio is around 3. Disparities are also strong and significant among immigrants who arrived in France during childhood (G1.5) as well as second generation immigrants with two immigrant parents (G2), and similarly attest to a non-European/European form of stratification.

Interestingly, it is only among second generation immigrants with one French native parents that inequalities with the majority appear to weaken. No significant differences are found between the latter and G2.5 from Portugal and other European countries. Among Italians and Spanish, the odds ratio is still significant but quite low, showing a 30% greater chance than natives of living in high share immigrant neighborhoods. Nonetheless, G2.5 non-Europeans still have about double the chances of the majority of residing in such areas. Statistical significance is weak for Asians, but remains strong for North Africans and Sub-Saharan Africans.

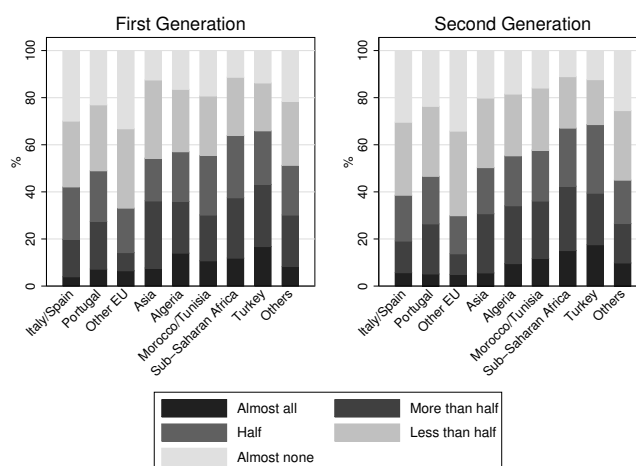
Beyond the importance of immigrant origin, socioeconomic factors are also significantly correlated with living in high share immigrant neighborhoods. Higher education is linked to reduced chances of living in the most high concentration neighborhoods by between 30 to 50%. In contrast, however, income is not consistently significant, and goes in the opposite direction than expected. The most affluent categories, i.e. household income in the 90th percentile or higher, have significantly higher chances of living in such neighborhoods compared to the poorest categories. The only exception is found among the G2.5 generation, where middle-class categories have significantly lower chances of living

in immigrant neighborhoods.

Finally, strong effects of housing tenure and city size are found. Public housing occupants have about 2 to 3 times greater chances of living in segregated neighborhoods than renters in the private market. Homeownership, on the other hand, is significantly associated with a decrease in these odds for G1 and G2.5 immigrants. Living in large municipalities is also strongly correlated with residing in immigrant neighborhoods.

Subjective Perceptions of Neighborhood Immigrant Composition

In addition to objective measures describing the *IRIS* of residence, TeO includes a question that captures how individuals perceive the immigrant composition of their local areas. Respondents are asked “Would you say that the inhabitants of your neighborhood are...” and are given five choices: almost all are of immigrant origin, more than half are of immigrant origin, half are of immigrant origin, less than half are of immigrant origin, and almost none or none are of immigrant origin. Non-Europeans overwhelmingly respond that at least half of the inhabitants of their neighborhoods are immigrants, while only a small minority declare living in areas with no immigrants. Less than half of Europeans, on the other hand, report that their neighborhoods are predominately half immigrant. Almost no variation is found in the perception of first and second generation immigrants: second generation non-Europeans still predominately declare living in neighborhoods concentrating immigrant populations.

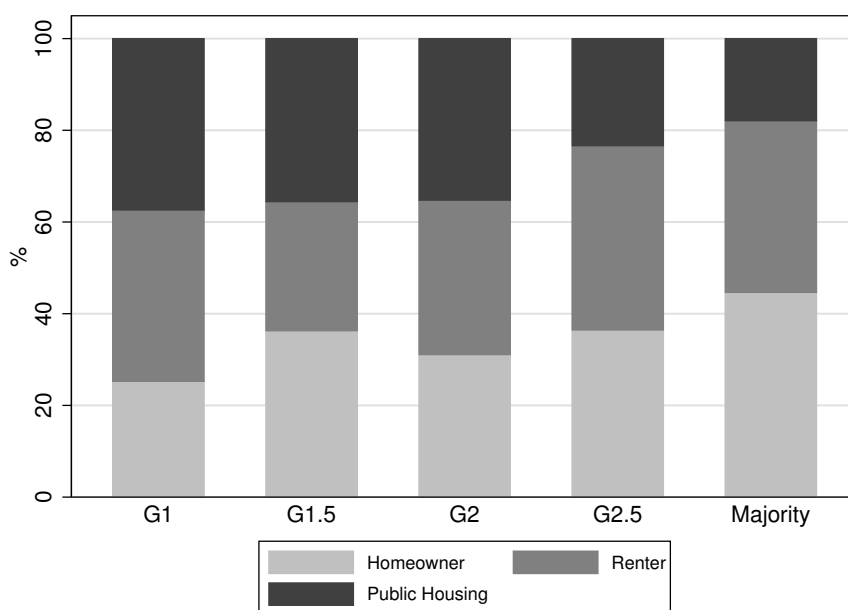


Source: TeO 2008 (INED/INSEE).

3.2.3 Patterns in Housing Tenure

Figure 3.10 provides an initial overview of housing tenure disparities between French majority members, first generation immigrants and their offspring. At 45%, the French majority have the highest homeownership rates. First generation immigrants have much lower chances of being homeowners. Only 25% of G1 immigrants own their homes. This time, a noticeable difference is observed between G1 and G1.5 immigrants, with the latter exhibiting a homeownership rate of 36%. Immigrants and the majority also differ in terms of access to public housing: nearly 40% immigrants live in the sector, compared to only 18% of the majority. When it comes to public housing residency, immigrant age of arrival does not appear to play much of a role, as differences between G1 and G1.5 immigrants are slight.

Figure 3.10 – *Housing Tenure by Immigrant Generation*



Source: TeO, 2008 (INED/INSEE)

The analysis of neighborhood disparities revealed the importance of distinguishing between second generation immigrants with two immigrant parents (G2) compared to those with one French parent (G2.5). Does mixed background impact access to housing as well? Indeed, having a French parent does seem to represent an advantage on the housing market. Second generation immigrants with one French native parent have higher homeownership rates and lower chances of living in public housing than second generation

Table 3.9 – *Housing Tenure by Age and Immigrant Generation*

	First Generation	Second Generation	Majority
<i>Homeownership</i>			
18-25	8	8	8
26-35	20	28	39
36-45	33	45	54
46-60	44	52	60
Total	29	34	45
<i>Public housing</i>			
18-25	28	26	16
26-35	38	32	17
36-45	39	30	20
46-50	33	25	17
Total	37	30	18

TeO 2008 (INED/INSEE). Table shows percentages.

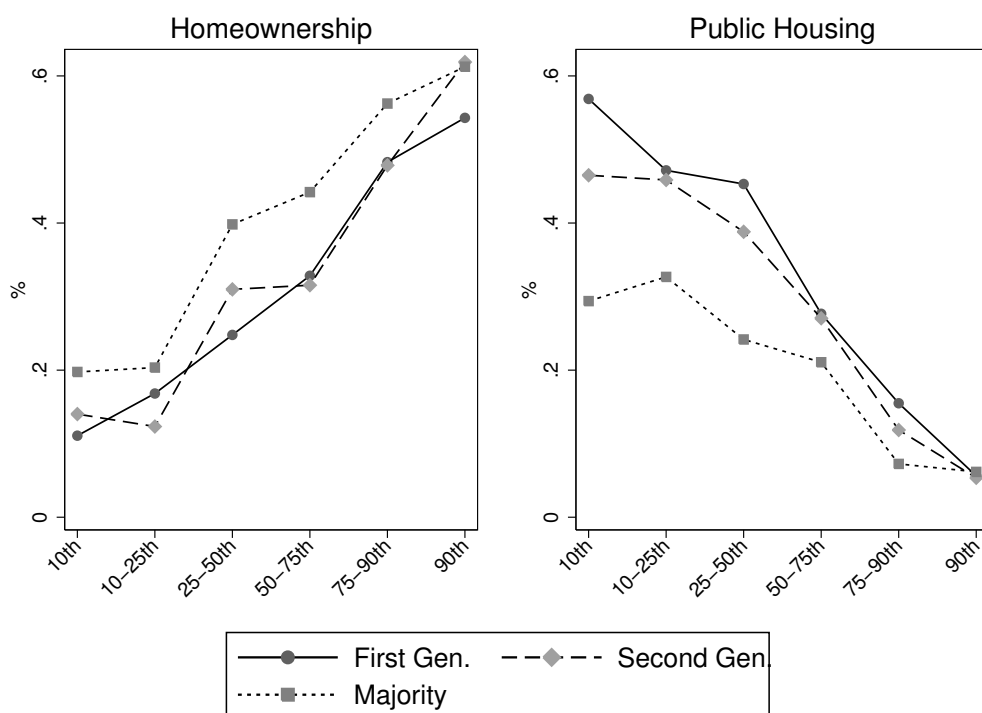
immigrants with two immigrant parents. 36% of G2.5 immigrants are homeowners and only 23% live in public housing, compared to 31% and 35%, respectively, of G2. All in all, when it comes to housing outcomes, G2 immigrants tend to more closely resemble first generation immigrants while G2.5 immigrants are similar to the majority.

Life cycle factors, and particularly age, are primary determinants of housing and could help account for some of the differences observed across groups. Table 3.9 breaks down immigrants' and the majority's homeownership and public housing rates by age groups. The lower shares of homeowners among the immigrant population are not due to age differences; in fact, disparities between immigrants and the majority actually widen as age increases, as the two groups access homeownership at different speeds. No gap between immigrants and the majority is observed among the youngest category, as only 8% of immigrants and the majority aged 18 to 25 own their homes. Yet, homeownership rises quickly for the majority between the ages of 26 and 35 to reach 39%, while only 20% immigrants of the same age own their homes. The gap continues to grow between immigrants and the majority aged between 36 and 45. This is not the case, however, for second generation immigrants and the majority. While the former consistently have lower rates of homeownership at all ages, the disparities remains fairly stable at each category of age.

Interestingly the trend linked to age is the opposite in terms of living in public housing.

In this case, the majority has rather constant rates of public housing occupancy regardless of age. Among first generation immigrants, on the other hand, the share living in public housing rises with age. A similar but weaker trend is seen among the second generation. Hence, housing disparities between immigrants and the majority is here again reinforced with age.

Figure 3.11 – *Housing Tenure by Income*

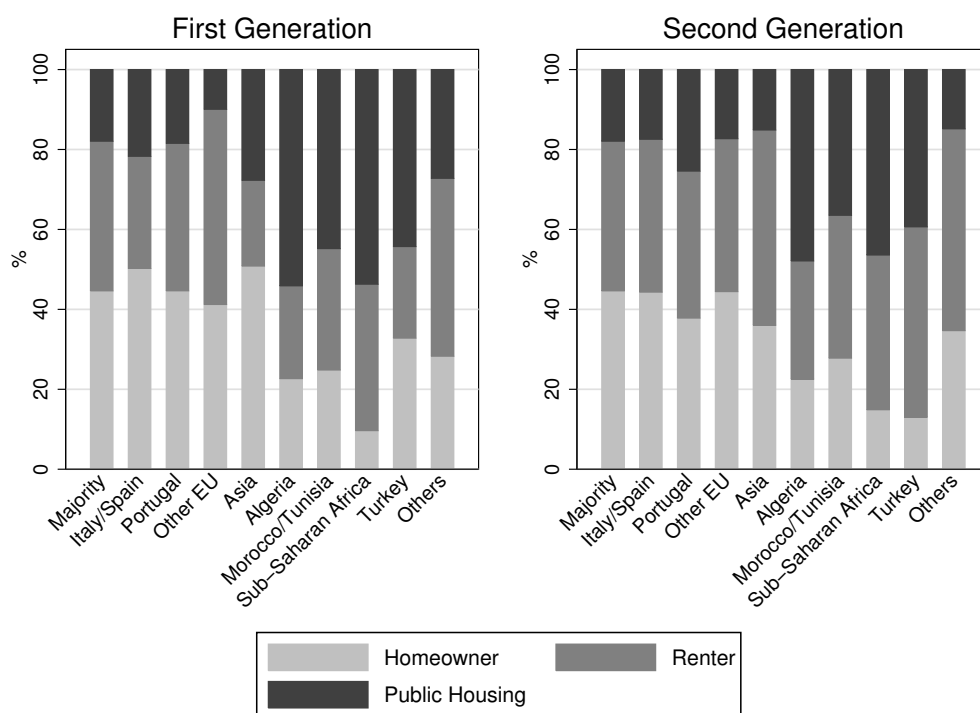


Source: TeO, 2008 (INED/INSEE)

To what extent are inequalities in housing tenure explained by the lower socioeconomic status of immigrants? Figure 3.11 shows rates of homeownership and public housing by immigrant generation and income categories. As expected, income is an important factor contributing to housing tenure inequalities. Both homeownership and public housing rates vary substantially according to levels of earnings. The lowest earners of all groups have the lowest homeownership rates (lower than 20%) and the rates rise steadily to reach the highest share of homeowners among the highest earners. Still, at no category of income do immigrants and natives exhibit equal rates of homeownership. A difference of about ten percentage points separates the homeownership rates of low income natives (20%) and immigrants (10%) as well as high earning natives (60%) and immigrants (50%). Further-

more, the disparity between the two groups widens among the middle classes. Among natives, homeownership jumps between the 10th-25th and 25th-50th income categories, while for immigrants, homeownership increases at a slower speed. Second generation immigrants still show lower homeownership rates than the majority, except among the highest earners.

Figure 3.12 – *Housing Tenure by Immigrant Origin*



Source: TeO, 2008 (INED/INSEE)

Public housing also varies substantially by income, and strongly shapes disparities between first and second generation immigrants and the majority. Unsurprisingly, low income households have a greater presence in the sector than higher earners. Yet, low-income French are not as strongly concentrated in the public housing sector than low-income immigrants and their offspring. About 30% of natives in the bottom income bracket live in public housing, compared to about 60% of first generation immigrants and nearly 50% of second generation immigrants. Immigrants and their offspring remain in public housing at greater rates than the majority as income increases, until the upper income category is reached. Only among these upper earners are public housing disparities attenuated.

Finally, Figure 3.12 illustrates disparities in housing tenure linked to origin for first and second generation immigrants. A sharp distinction between natives, Europeans, and Asians, on the one hand, and North Africans and Sub-Saharan Africans, and Turks is visible. Indeed, Europeans and Asians, whether among the first or second generation, do not differ noticeably from the majority in homeownership. Likewise, public housing rates are comparably low for these groups, with around 20% living in the sector. North Africans, sub-Saharan Africans and Turks, however, show a much stronger disadvantage on the housing market, in both generations. These groups have the lowest homeownership rates and highest public housing occupancy. This pattern is only slightly different for first generation Turks, who have high homeownership rates, but also a high risk of living in public housing.

To test immigrant origin patterns net of other factors, I run a general multinomial logistic regression model (Model 2) predicting housing tenure, with separate specifications (a, b, c and d) for the four categories of immigrant generations (G1, G1.5, G2 and G2.5) and the French majority.¹⁰ The dependent variable is housing tenure in three categories: 1) homeowner, 2) private renter and 3) public housing resident. In addition to origin, the models also control for gender, age, education, household income, marital status and number of children. Two dummies are also included to capture whether respondents are currently unemployed or a homeowner in another country. Three contextual-level variables are included: municipality size, the share of public housing and the share of homeowners in the municipality. Full model results are displayed in Table 3.10.

The importance of factors related to the life cycle, socioeconomic status and local context on housing tenure are evident across models. Significant positive effects are found for age, being married and having children on both accessing homeownership and living in public housing. As expected, higher education and income are also positively correlated with homeownership and negatively correlated with public housing residency. Finally, contextual factors show that the log-odds of homeownership and public housing residency are positively associated with the share of these respective types of housing in the munic-

¹⁰As in the previous section, this modeling strategy was chosen since it enables origin groups from each generational category to be compared to the French majority.

ipality.

Let's first focus on patterns in homeownership linked to origin. Among the first generation (G1), significant differences in homeownership are only found for four groups. Sub-Saharan Africans show the greatest homeownership disadvantage, with about a 70% lower chance of owning their homes. Portuguese are also penalized on the housing market, with about a 40% lower chance than the majority. On the other hand, net of other factors, Asians are actually more likely to own their homes. For all other groups, the difference with the majority fails to reach statistical significance, indicating that housing disadvantage can be largely explained by individual and contextual factors.

Table 3.10 – *Multinomial Logistic Regression Model 2 Predicting Housing Tenure*

	Owner	M2a Public housing	Owner	M2b Public housing	Owner	M2c Public housing	Owner	M2d Public housing
<i>Ref: French majority</i>								
Italy/Spain	1.341 (0.426)	0.857 (0.391)	0.999 (0.322)	1.158 (0.420)	1.036 (0.156)	0.746 (0.138)	0.933 (0.115)	0.934 (0.141)
Portugal	0.496** (0.111)	0.231*** (0.066)	1.258 (0.278)	0.818 (0.204)	1.018 (0.161)	1.015 (0.183)	0.895 (0.233)	1.211 (0.324)
Other EU	0.708* (0.120)	0.549* (0.128)	0.858 (0.347)	0.243+ (0.193)	1.305 (0.510)	1.518 (0.698)	1.026 (0.158)	0.851 (0.164)
Asia	2.479*** (0.588)	1.249 (0.323)	3.151*** (0.704)	2.532*** (0.619)	0.705 (0.196)	1.216 (0.341)	1.162 (0.299)	0.440+ (0.191)
Algeria	0.743 (0.141)	2.643*** (0.434)	1.482 (0.377)	2.383*** (0.577)	0.936 (0.141)	2.177*** (0.306)	1.004 (0.212)	1.861** (0.360)
Morocco/Tunisia	0.733+ (0.118)	1.564** (0.232)	1.308 (0.288)	2.031*** (0.421)	0.868 (0.155)	2.156*** (0.349)	0.762 (0.170)	1.218 (0.287)
Sub-Saharan Africa	0.316*** (0.048)	2.066*** (0.251)	0.439** (0.126)	2.355*** (0.483)	0.566* (0.159)	3.912*** (0.774)	0.761 (0.218)	2.770*** (0.723)
Turkey	1.296 (0.243)	1.663** (0.293)	2.432*** (0.568)	1.635* (0.380)	1.124 (0.277)	1.749** (0.376)		
Others	0.503*** (0.068)	0.915 (0.126)	1.217 (0.309)	1.276 (0.338)	0.810 (0.221)	0.866 (0.269)	0.708 (0.164)	0.889 (0.249)
<i>Gender/Ref: Men</i>								
Women	1.367*** (0.115)	1.088 (0.090)	1.173 (0.125)	1.009 (0.116)	1.168+ (0.109)	1.112 (0.109)	1.088 (0.103)	1.107 (0.124)
<i>Age/Ref: 18-25</i>								
26-35	2.488*** (0.513)	1.604** (0.248)	2.247*** (0.504)	2.278*** (0.438)	2.797*** (0.488)	2.092*** (0.289)	2.377*** (0.443)	1.432* (0.244)
36-45	4.877*** (1.018)	2.277*** (0.360)	5.694*** (1.314)	3.060*** (0.624)	5.271*** (0.990)	2.367*** (0.381)	5.652*** (1.114)	2.047*** (0.380)
46+	8.478*** (1.845)	2.534*** (0.441)	10.166*** (2.544)	3.572*** (0.842)	8.811*** (1.879)	2.771*** (0.571)	8.708*** (1.847)	2.022*** (0.432)
<i>Income percentile/Ref: <10th</i>								
10th-25th	1.115 (0.214)	0.821 (0.112)	1.233 (0.339)	0.939 (0.203)	1.127 (0.299)	0.917 (0.174)	0.789 (0.234)	1.136 (0.246)
25th-50th	1.571* (0.292)	0.842 (0.118)	1.989** (0.523)	1.108 (0.239)	1.786* (0.445)	0.957 (0.179)	1.751* (0.481)	1.105 (0.245)
50th-75th	2.540*** (0.490)	0.669** (0.102)	2.475*** (0.664)	0.970 (0.220)	2.022** (0.508)	0.705+ (0.137)	1.849* (0.504)	0.926 (0.209)

75th-90th	3.350*** (0.694)	0.422*** (0.083)	3.241*** (0.914)	0.575* (0.154)	2.703*** (0.711)	0.416*** (0.095)	2.217** (0.626)	0.441** (0.117)
>90th	4.865*** (1.071)	0.279*** (0.071)	3.459*** (1.047)	0.276*** (0.104)	3.511*** (0.988)	0.271*** (0.084)	3.761*** (1.110)	0.378** (0.125)
Unreported	2.012** (0.444)	0.619* (0.117)	2.934** (0.967)	0.829 (0.260)	2.614** (0.790)	0.747 (0.195)	3.258*** (1.066)	0.692 (0.234)
<i>Education/Ref: No education</i>								
Primary school	1.309+ (0.198)	1.021 (0.132)	1.189 (0.272)	0.801 (0.169)	1.195 (0.258)	1.008 (0.194)	0.982 (0.233)	0.619* (0.133)
Professional certificate	1.377* (0.220)	0.887 (0.127)	1.590** (0.282)	0.730+ (0.119)	1.322+ (0.221)	0.903 (0.133)	1.279 (0.251)	0.580** (0.102)
Vocational bac	1.416+ (0.264)	0.644* (0.113)	1.822** (0.404)	0.531** (0.114)	1.842** (0.353)	0.663* (0.116)	1.557* (0.343)	0.405*** (0.085)
General bac	1.662** (0.269)	0.812 (0.115)	1.668* (0.423)	0.522** (0.130)	1.320 (0.286)	0.495*** (0.100)	1.636* (0.387)	0.342*** (0.079)
2 years university	1.640** (0.267)	0.604** (0.093)	1.880** (0.396)	0.437*** (0.094)	1.968*** (0.365)	0.522*** (0.094)	1.872** (0.393)	0.245*** (0.054)
>2 years university	1.463** (0.202)	0.434*** (0.055)	2.031*** (0.406)	0.196*** (0.044)	1.575* (0.284)	0.311*** (0.057)	1.645* (0.332)	0.131*** (0.029)
Unemployed	0.842 (0.094)	0.930 (0.091)	0.841 (0.132)	1.254 (0.185)	0.822 (0.115)	1.156 (0.140)	0.699* (0.106)	0.953 (0.138)
Homeowner outside of France	0.953 (0.112)	1.090 (0.120)	1.395 (0.353)	1.319 (0.331)	1.207 (0.294)	1.190 (0.286)	1.674 (0.579)	3.111** (1.130)
<i>Family status/Ref: Single no children</i>								
Single/ children	1.606* (0.330)	2.056*** (0.333)	1.690* (0.391)	2.280*** (0.482)	1.283 (0.263)	1.899*** (0.340)	1.498* (0.306)	2.756*** (0.543)
Married/no children	2.132*** (0.313)	1.256 (0.178)	1.702** (0.291)	0.998 (0.186)	1.269 (0.185)	1.093 (0.160)	1.419* (0.196)	1.198 (0.201)
Married/one child	3.278*** (0.475)	1.942*** (0.262)	3.043*** (0.515)	1.523* (0.274)	2.833*** (0.412)	1.831*** (0.272)	3.027*** (0.439)	2.135*** (0.371)
Married/two children	6.453*** (0.931)	2.363*** (0.317)	6.908*** (1.194)	2.173*** (0.400)	5.344*** (0.778)	1.686*** (0.259)	6.395*** (0.984)	2.739*** (0.501)
Married/three or more children	8.628*** (1.385)	2.985*** (0.426)	6.917*** (1.386)	2.211*** (0.453)	7.094*** (1.352)	2.440*** (0.472)	6.415*** (1.303)	4.014*** (0.897)
Municipality share of public housing	1.121* (0.064)	2.272*** (0.259)	1.120+ (0.076)	2.213*** (0.311)	1.211*** (0.065)	2.273*** (0.258)	1.134* (0.058)	1.817*** (0.198)
Municipality share of homeowners	1.262*** (0.030)	1.067* (0.030)	1.260*** (0.035)	1.010 (0.036)	1.248*** (0.030)	1.060+ (0.032)	1.212*** (0.029)	0.991 (0.032)
<i>City size/Ref: 10,000-19,999</i>								
20,000-49,999	0.702 (0.192)	0.939 (0.308)	0.874 (0.256)	1.113 (0.406)	0.810 (0.218)	0.797 (0.240)	0.513* (0.136)	0.656 (0.221)
50,000-99,999	0.826 (0.225)	1.001 (0.326)	1.026 (0.300)	1.186 (0.430)	0.961 (0.254)	0.857 (0.255)	0.669 (0.176)	0.896 (0.298)
100,000-199,999	0.626+ (0.174)	0.914 (0.298)	0.772 (0.231)	1.150 (0.420)	0.649 (0.173)	0.551* (0.167)	0.636+ (0.169)	0.856 (0.289)
>200,000	0.505** (0.123)	0.671 (0.203)	0.820 (0.212)	1.245 (0.413)	0.837 (0.196)	0.761 (0.206)	0.689 (0.159)	1.254 (0.378)
Constant	0.015*** (0.009)	0.000*** (0.000)	0.009*** (0.006)	0.000*** (0.000)	0.007*** (0.004)	0.000*** (0.000)	0.018*** (0.011)	0.003*** (0.003)
Observations	5,051	5,051	3,151	3,151	3,884	3,884	3,511	3,511

Source: TeO 2008 (INED/INSEE). Base outcome is renter. Table reports relative risk ratios. Standard errors in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Among the first generation of immigrants who arrived during childhood (G1.5), differences with the majority in the probability of homeownership only remain for Asians, Sub-Saharan Africans and Turks. Again, the housing penalty persists for Sub-Saharan Africans, with a 70% lower chance of having this tenure than natives. Asian and Turkish

G1.5, however, show a significant net advantage over natives. with about two to three times greater chances of owning their homes.

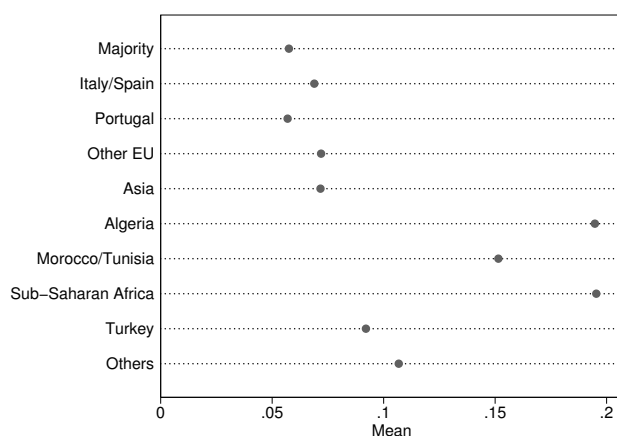
What can these findings tell us about generational assimilation into homeownership? In terms of accessing homeownership, a net disadvantage is only found for Sub-Saharan African G2, which remains quite strong. Among the G2.5 no net groups disparities are found.

Examining the public housing outcome, however, shows more persistent net disparities across groups for all generations. Among the first generation, Algerians, Moroccans and Tunisians, Sub-Saharan Africans and Turks have 2 to 3 times the chances of the majority of living in public housing. Portuguese and other EU, on the other hand, actually have lower chances. Moreover, disparities with natives in public housing are not attenuated by length of stay. All G1.5 immigrants of non-European origin are more likely to live in public housing. What's more, the findings testify to the persistence of disparities in access to public housing between the majority and second generation immigrants of African origin. Algerian, Moroccan and Tunisian, and Sub-Saharan African G2 still have about 2 to 3 times greater chances of living in the public housing sector. This time, unlike homeownership, inequalities extend to the G2.5 generation, with Asian, Algerian and Sub-Saharan African second generations with one French native parent more likely to live in the sector.

Hence, for the most part, the homeownership gap linked to ethnoracial group can be explained by individual or contextual factors. Once controlled, the gap with natives disappears, or in some cases, turns positive, as shown by the higher odds of Asians and Turkish first generations. Only for sub-Saharan African first and second generations (G1, G1.5 and G2) does the housing market penalty persist all things being equal. Yet, the greater risk of non-European immigrants living in public housing is not attenuated by individual or contextual determinants, and continues into the second generation. Here, the evidence suggests that origin is a salient factor shaping access to the public housing market.

Subjective Perceptions of Housing Market Discrimination

TeO respondents are asked a number of questions about recent applications for housing. To those who have moved or looked to move in the five years preceding the survey, respondents are asked whether they have experienced discrimination on the housing market: “During the last five years, have you ever been refused to rent or buy housing for no valid reason?” Respondents who answer in the affirmative are then asked their opinion about why they were refused for housing. 20% of Algerians and Sub-Saharan Africans and 15% of Moroccans and Tunisians report having experienced discrimination, while this is true for only 6 to 7% of Europeans and the mainstream. Non-Europeans also declare multiple reasons for discrimination: over 20% declare more than one reason. The most frequently cited reasons for Sub-Saharan Africans are skin color (67%), origins or nationality (46%), and their accent or way of speaking (13%). The reasons are very similar for North Africans: Algerians and Moroccans report origins or nationality (54% and 59% respectively), skin color (10% and 18% respectively) and religion (9% and 12% respectively) most frequently.



Source: TeO 2008 (INSEE). Out of the total sample of 14,232, 6,173 (38%) are not asked the question as they did not move or look to move in the five years preceding the survey. 889 respondents out of the remaining 8,059, or 8%, report having experienced discrimination.

3.3 Articulating the Dimensions of Residential Outcomes

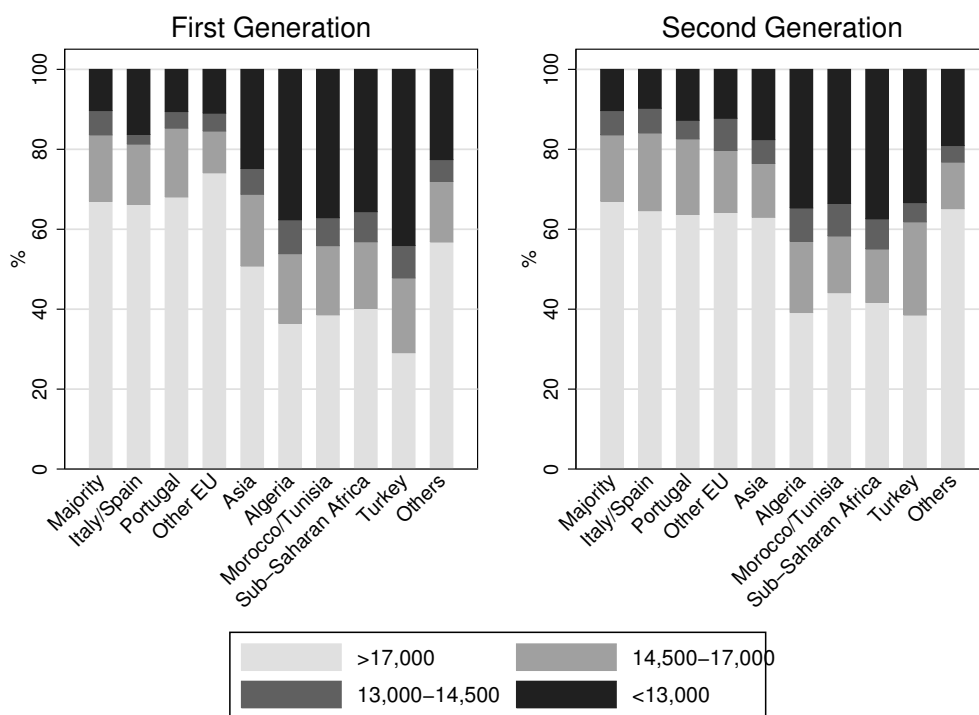
Still using data from TeO, in this section I assess neighborhood and housing outcomes together. I first explore the degree to which living in areas with high shares of immigrants overlaps with living in areas with high rates of socioeconomic disadvantage, before turning to the link between public housing and immigrant neighborhoods. A major aspect of

this analysis is to determine whether neighborhood and housing outcomes exhibit similar correlations across immigrant origin groups.

3.3.1 Cumulative Spatial Disadvantage

Disparities linked to origin are not only decisive in living in immigrant areas or in shaping housing tenure. Immigrant origin also structures exposure to socioeconomically disadvantaged neighborhoods. Figure 3.13 displays the share of first and second generation immigrants living in neighborhoods according to the average household income in the area. A very similar pattern to that observed for patterns in immigrant neighborhoods is visible here. First and second generation Europeans are nearly indistinguishable from the majority. Less than 10% live in the poorest areas, while more than two-thirds live in the most affluent neighborhoods. European immigrants' attainments contrast sharply with the neighborhoods in which North Africans, sub-Saharan Africans and Turks live. Nearly 40% of these immigrants and their offspring live in the poorest neighborhoods, where the average annual household income is lower than 13,000 Euros.

Figure 3.13 – *Neighborhood Income By Ethnoracial Group and Generation*



Interestingly, as in housing outcomes, an exception to the European/non-European divide is found here. Unlike other non-Europeans, Asians do not appear to be strongly exposed to neighborhood disadvantage. Less than 20% of the first generation and second generation reside in the poorest neighborhoods, and like Europeans and the majority, predominately live in the most affluent spaces. Reading these results in light of the previous findings showing residence in immigrant areas suggests that disadvantaged neighborhood outcomes do not always overlap with living in high concentration immigrant neighborhoods. Europeans, for instance, have higher rates of exposure to immigrant share areas than the majority, but are not more likely to reside in poor neighborhoods. Similarly, Asians tend to reside in the most concentrated immigrant neighborhoods, but are relatively sheltered from spatial disadvantage. On the other hand, North Africans, Sub-Saharan Africans and Turks appear to live in areas cumulating both high shares of immigrants and low income neighborhoods.

To more thoroughly explore this hypothesis that cumulative spatial disadvantage varies across groups, Table 3.11 shows the proportion of each group living in poor neighborhoods and high share immigrant neighborhoods simultaneously. The analysis is again broken down by immigrant generation. Clearly, living in immigrant neighborhoods does not have the same implications in terms of socioeconomic spatial disadvantage for all groups. A relatively low share of French and first generation European immigrants cumulate both segregation and neighborhood disadvantage: 20%, 30% and 36% of Portuguese, the majority and Italian/Spanish first generation immigrants living in high share immigrant areas also live in low income neighborhoods. However, this is the case for over 50% of North African, Sub-Saharan African and Turkish first generation immigrants. It is noteworthy that here again Asians more closely resemble Europeans and the majority than other non-Europeans: only 40% of Asian first generation immigrants live in areas with both high shares of immigrants and low-income households.

Are similar trends found among the second generation? The results shed light on an even wider disparity between the offspring of European and Asian immigrants, on the one hand, and North Africans, Sub-Saharan Africans and Turks, on the other. Indeed, only between 24 and 29% of European second generations are exposed to spatial disadvantage

and high share immigrant areas, whereas this is still the case for over 50% of North Africans and sub-Saharan Africans and 49% of Turks. Hence, while cumulative disadvantage drops between first and second generation Europeans and Asians, it persists between generations of Africans and Turks.

Table 3.11 – *Percent Living in a Low Income and High Immigrant Neighborhood*

	30	
French Majority	First Generation	Second Generation
Italy/Spain	36	24
Portugal	20	29
Other EU	22	25
Asia	40	32
Algeria	50	55
Morocco/Tunisia	56	51
Sub-Saharan Africa	50	53
Turkey	59	49
Other	36	35
Total	45	43

Source: TeO 2008 (INED/INSEE)

I test these patterns net of other factors using a bivariate probit model (Model 3) which simultaneously predicts two dependent variables: living in the 10% of neighborhoods with the highest immigrant shares ($y1$) and living in the 10% of neighborhoods with the lowest income households ($y2$).

I run two specifications of the model, separately for first generations (G1, G1.5) and the majority (specification a) as well as second generations (G2, G2.5) and the majority (specification b). Full model results are posted in Table 3.12.¹¹

Table 3.12 – *Bivariate Probit Model 3 Predicting Residence in a Low Income and High Immigrant Neighborhood*

	M3a		M3b	
	y1	y2	y1	y2
	High immigrant	Low income	High immigrant	Low income
<i>Ref: French majority</i>				
Italy/Spain	0.540***	0.110	0.188***	-0.025
	(0.112)	(0.142)	(0.053)	(0.064)
Portugal	0.635***	-0.074	0.332***	-0.020
	(0.076)	(0.097)	(0.062)	(0.076)

¹¹The covariates included in these models are the same as Model 1 and include: immigrant origin, gender, age, education, income, marital status and number of children, a dummy for current unemployment, a dummy indicating cohabitation with parents, housing tenure and city size.

Other EU	0.470*** (0.082)	0.186+ (0.105)	0.158* (0.071)	0.149+ (0.083)
Asia	0.874*** (0.070)	0.187* (0.082)	0.571*** (0.068)	0.104 (0.082)
Algeria	0.889*** (0.064)	0.506*** (0.069)	0.537*** (0.052)	0.452*** (0.057)
Morocco/Tunisia	0.814*** (0.059)	0.549*** (0.064)	0.671*** (0.055)	0.427*** (0.061)
Sub-Saharan Africa	0.963*** (0.055)	0.430*** (0.059)	0.832*** (0.062)	0.327*** (0.067)
Turkey	1.141*** (0.066)	0.695*** (0.069)	0.822*** (0.077)	0.513*** (0.083)
Other	0.921*** (0.057)	0.348*** (0.065)	0.583*** (0.068)	0.197* (0.082)
<i>Gender/Ref: Men</i>				
Women	0.002 (0.033)	-0.129*** (0.037)	0.083** (0.030)	0.023 (0.034)
<i>Age/Ref: 18-25</i>				
26-35	0.111+ (0.062)	0.062 (0.066)	0.082+ (0.045)	0.088+ (0.049)
36-45	0.066 (0.064)	-0.002 (0.069)	0.027 (0.055)	0.024 (0.062)
46+	0.102 (0.071)	0.022 (0.076)	0.004 (0.069)	-0.021 (0.080)
<i>Income percentile/Ref: <10th</i>				
10th-25th	0.035 (0.061)	-0.140* (0.061)	-0.057 (0.061)	-0.146* (0.063)
25th-50th	-0.097 (0.061)	-0.276*** (0.062)	-0.093 (0.061)	-0.269*** (0.063)
50th-75th	-0.063 (0.066)	-0.514*** (0.069)	-0.136* (0.062)	-0.477*** (0.066)
75th-90th	-0.086 (0.076)	-0.587*** (0.085)	-0.101 (0.070)	-0.561*** (0.079)
>90th	0.176* (0.083)	-0.748*** (0.104)	0.129+ (0.076)	-0.563*** (0.091)
Unreported	-0.085 (0.076)	-0.517*** (0.080)	-0.007 (0.066)	-0.567*** (0.070)
<i>Education/Ref: No education</i>				
Primary school	-0.098+ (0.055)	-0.246*** (0.057)	-0.150* (0.062)	-0.153* (0.065)
Professional certificate	-0.240*** (0.053)	-0.320*** (0.056)	-0.180*** (0.053)	-0.163** (0.056)
Vocational bac	-0.225** (0.069)	-0.293*** (0.075)	-0.175** (0.059)	-0.169** (0.063)
General bac	-0.188** (0.062)	-0.199** (0.064)	-0.169** (0.062)	-0.258*** (0.067)
2 years university	-0.339*** (0.064)	-0.338*** (0.070)	-0.145* (0.062)	-0.168* (0.068)
>2 years university	-0.329*** (0.054)	-0.406*** (0.060)	-0.142* (0.059)	-0.324*** (0.067)
Unemployed	-0.004 (0.041)	-0.016 (0.044)	-0.057 (0.040)	-0.003 (0.043)
Living with parents	0.098 (0.070)	0.107 (0.075)	0.182*** (0.051)	0.256*** (0.057)
<i>Family status/Ref: Single no children</i>				
Single/one child	-0.141+ (0.075)	-0.103 (0.080)	-0.191** (0.072)	-0.075 (0.078)
Married/no children	-0.093 (0.062)	-0.061 (0.071)	-0.207*** (0.057)	-0.062 (0.067)
Married/one child	-0.165** (0.059)	-0.103 (0.067)	-0.110+ (0.058)	-0.025 (0.067)

Married/two children	-0.055 (0.058)	-0.106 (0.065)	-0.149* (0.058)	-0.198** (0.069)
Married/three or more children	-0.021 (0.061)	-0.046 (0.066)	-0.130+ (0.070)	0.002 (0.079)
<i>Housing tenure/Ref: Private renter</i>				
Homeowner	-0.170*** (0.043)	-0.005 (0.051)	-0.106** (0.040)	-0.002 (0.048)
Renter	0.459*** (0.042)	0.799*** (0.045)	0.539*** (0.040)	0.813*** (0.045)
<i>City size/Ref: 10,000-19,999</i>				
20,000-49,999	0.652*** (0.124)	0.203 (0.138)	0.502*** (0.109)	-0.089 (0.116)
50,000-99,999	0.184 (0.124)	0.387** (0.136)	0.125 (0.109)	0.192+ (0.113)
100,000-199,999	0.026 (0.127)	0.275* (0.139)	-0.114 (0.114)	-0.013 (0.118)
>200,000	0.830*** (0.113)	0.319* (0.126)	0.665*** (0.099)	0.110 (0.103)
Constant	-1.324*** (0.143)	-0.956*** (0.155)	-1.255*** (0.127)	-0.994*** (0.134)
Rho	0.782*** (0.028)		0.729*** (0.025)	
Observations	7,431	7,431	8,813	8,813

Source: TeO 2008 (INED/INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

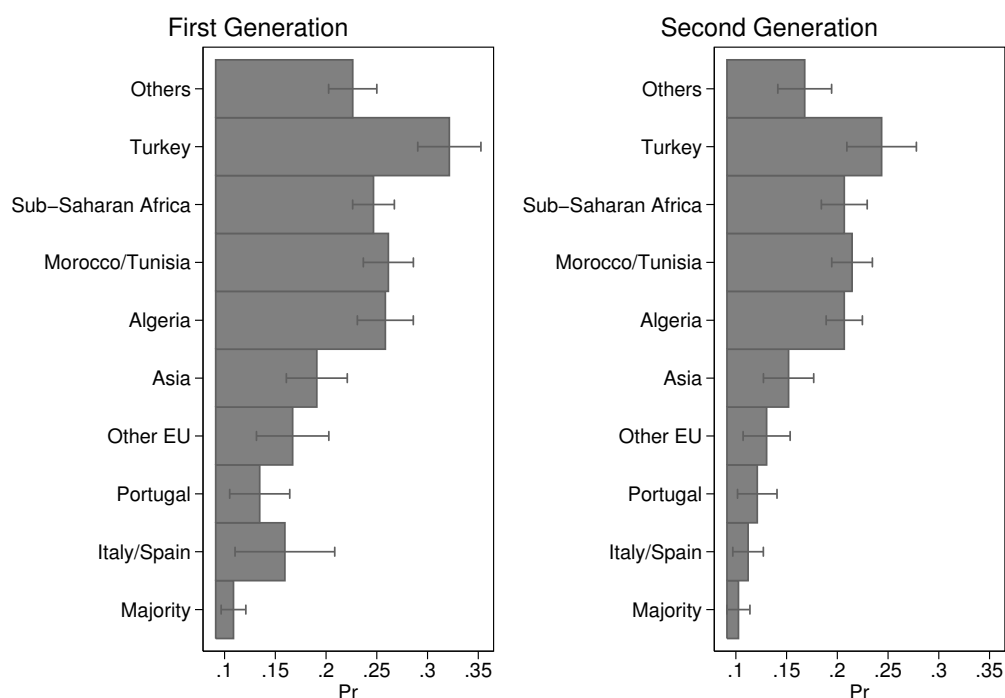
As we saw earlier, non-European first and second generation immigrants have the highest odds of living in the most segregated areas compared to the majority and net off other factors. New findings emerge from the low-income equation. All origin groups in the first generation have higher odds than the majority of living in the most disadvantaged neighborhoods, with the highest coefficients observed for non-Europeans. However, among the second generation, inequalities in neighborhood disadvantage between the majority and Europeans lose statistical significance. Still, North Africans, Sub-Saharan Africans and Turks, like the first generation, have significantly greater chances of living in the poorest areas.

These models enable us to go further in identifying how living in immigrant neighborhoods and disadvantaged spaces intertwine by calculating the joint probabilities of both outcomes, namely of living in the poorest *and* highest immigrant share neighborhoods. Figure 3.14 displays these joint probabilities for both first and second generation immigrants. For the majority, the probability of cumulative spatial disadvantage is 10%. First generation Immigrants of European and Asian origin show slightly higher chances of living in immigrant and disadvantage areas, with between a 15% and 20% chance of living in such areas. Yet, for North Africans, Sub-Saharan Africans and Turks, the probabilities are

significantly stronger: 25% of Algerians and over 30% of Turks reside in poor immigrant neighborhoods.

This pattern is repeated among the second generation, albeit with lower overall probabilities which place them in a closer position to the French majority. North African, Sub-Saharan African and Turkish immigrants have about double the chance of living in poor immigrant neighborhoods than the majority. The gap between second generation Asians, Europeans and the majority is even smaller than that observed in the first generation, with joint probabilities that do not appear to be significantly different.

Figure 3.14 – *Joint Probability of Living in a Low Income Immigrant Neighborhood*



Source: TeO 2008 (INED/INSEE)

Variations on Spatial Assimilation?

I extend this analysis to explore spatial assimilation patterns across immigrant origin groups in cumulative disadvantage. Specifically, I analyze whether similar effects of immigrant generation and income are found for all groups alike, or whether the force of these factors varies across groups. To what extent do these factors trigger similar trends in living in poor immigrant neighborhoods across immigrant origin groups?

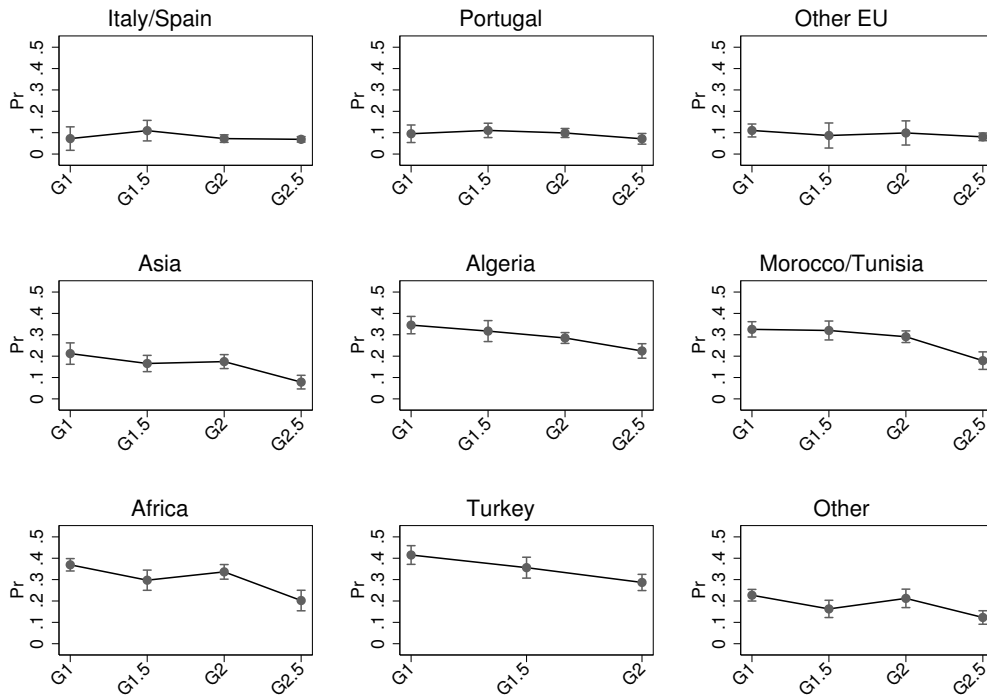
To test whether generation and income effects are similar across groups, I run a variation on the bivariate probit regression model, this time on the immigrant sample only. Model 4 thus predicts two dependent variables: living in the most segregated neighborhoods ($y1$) and living in the most disadvantaged neighborhoods ($y2$). As the aim here is to explore the effects of generation and income across immigrant origins, the model includes two interaction terms, 1) between immigrant origin and immigrant generation (G1, G1.5, G2 and G2.5) and 2) between immigrant origin and household income. French majority members are excluded from this analysis as the immigrant generation variable does not apply to this group. Full model results are included in Table 6.6 in Appendix C.

Figure 3.15 displays the joint probability of living in neighborhoods concentrating both immigrants and poor households from the interaction between immigrant origin and generation. Differential patterns linked to immigrant generation can be observed across groups. Among Italians/Spanish, Portuguese and other Europeans, the probability of cumulative disadvantage is low and fairly constant across categories of immigrant generations. Indeed, immigrant generation does not produce much variation in neighborhood attainment for these origins, suggesting that immigrant generation matters little to spatial assimilation.

In contrast, if we consider non-Europeans, the probability curves tend to decline between G1 and G2.5 immigrants, indicating that immigrant generation perhaps plays a more substantial role for these groups. Still, a closer inspection of non-Europeans immigrants' outcomes reveals that mixed origin is again of particular importance. Indeed, while little variation is found across the G1, G1.5 and G2 categories of North Africans and Sub-Saharan Africans, second generations with one French native parent (G2.5) have significantly lower odds of living in poor and high immigrant neighborhoods compared to other generations of the same origin.

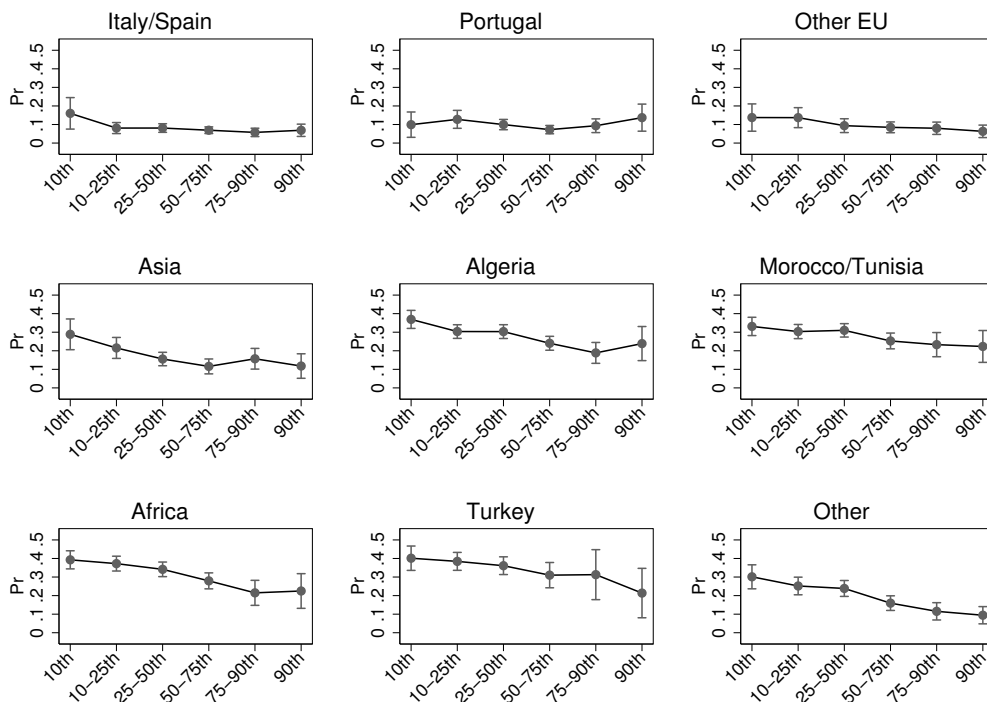
Similarly, Figure 3.16 illustrates patterns in cumulative disadvantage according to the second interaction, namely that between immigrant origin and income. Income effects are relatively weak for Europeans. Here again, assimilation patterns linked to income are not the same across groups. Among Europeans, the probability curves are again fairly

Figure 3.15 – *Joint Probabilities of Living in a Low Income Immigrant Neighborhood By Generation and Origin*



Source: TeO 2008 (INED/INSEE)

Figure 3.16 – *Joint Probabilities of Living in a Low Income Immigrant Neighborhood By Income and Origin*



Source: TeO 2008 (INED/INSEE)

straight. Only among Spaniards and Italians is there a notable decline between the lowest income category (<10th percentile) and the second lowest income category (between the 10th and 25th percentile).

Among non-Europeans, however, income effects appear to be much more decisive in shaping residence in poor immigrant neighborhoods. Asians show a steady decline in the joint probability of these outcomes as income increases; while the lowest category has a 30% chance of living in poor immigrant neighborhoods, this is true for only 10% of high earners. Substantial decreases linked to higher income are also found for North Africans, Sub-Saharan Africans and Turks. Still, for these latter groups, the drop seems to be the most substantial for the upper 50% of earners, resulting in persistently high probabilities of combined disadvantage for North Africans, sub-Saharan Africans and Turks among the middle classes.

3.3.2 Public Housing and Immigrant Neighborhoods

Table 3.13 displays the proportion of each group living in high concentration immigrant neighborhoods by housing tenure. Living in public housing disproportionately occurs in immigrant areas: 44% of public housing residents live in high concentration neighborhoods areas against 27% of renters and 19% of homeowners. Yet, exposure to immigrant neighborhoods varies considerably across groups within housing tenures. If we consider public housing residents, 32% of the majority and between 38% and 40% Europeans, respectively, live in high share immigrant areas, compared to 73% of Africans. Concentration in immigrant neighborhoods is comparably high for North African, Turkish and Asian public housing tenants, i.e. between 61 and 70%.

On the other hand, the gap in neighborhood outcomes is much less pronounced between renters and owners. Consider Algerians: renters and owners live in high share immigrant areas at nearly equal rates, yet public housing residents have nearly a 20% greater chance of living in high share immigrant areas than other tenures. Findings are similar for Moroccan/Tunisian, Sub-Saharan African, Asian, and Turkish public housing residents compared to renters or owners of the same origin. A notable exception is that Asians

are substantially more likely to live in immigrant neighborhoods as homeowners than as renters. Among Europeans and the majority, however, differences in neighborhood outcomes across housing tenures are far more moderate.

Table 3.13 – *Percentage Living in High Concentration Immigrant Neighborhoods by Housing Tenure*

	Owner	Renter	Public Housing
French majority	14	20	32
Italy/Spain	18	33	38
Portugal	37	37	40
Other EU	24	35	38
Asia	55	37	61
Algeria	47	46	63
Morocco/Tunisia	41	47	68
Sub-Saharan Africa	53	53	73
Turkey	55	61	70
Other	49	51	68
Total	19	27	44

Source: TeO 2008 (INED/INSEE).

Using a similar estimation strategy to the one used to study cumulative disadvantage, I apply a bivariate probit model (Model 5) that simultaneously estimates housing and neighborhood outcomes. Full model results are included in Table 3.14. The model predicts two binary dependent variables: living in public housing ($y1$), coded 1 for public housing and 0 for owners and renters, and living in a segregated neighborhood ($y2$), coded 1 for residency in the top decile of the neighborhood immigrant share and 0 otherwise. Separate models are run on the immigrant sample (Model 5a) and French natives (Model 5b) in order to control for immigrant generation. I use these models to construct a typology of housing and neighborhood outcomes by calculating four sets of joint probabilities: a) owning/renting in a non-immigrant neighborhood ($y1=0$ and $y2=0$), b) owning/renting in an immigrant neighborhood ($y1=0$ and $y2=1$), c) living in public housing in a non-immigrant neighborhood ($y1=1$ and $y2=0$) and d) living in public housing in an immigrant neighborhood ($y1=1$ and $y2=1$). Figure 3.17 depicts these different residential outcomes by immigrant origin group.

Table 3.14 – *Bivariate Probit Model 5 Predicting Residence in Public Housing and an Immigrant Neighborhood*

	y1	y2	y1	y2
	Public housing	High immigrant	Public housing	High immigrant
<i>Ref: Italy/Spain</i> Portugal	-0.123 (0.075)	-0.036 (0.076)		
Other EU	-0.093 (0.083)	-0.069 (0.078)		
Asia	-0.017 (0.083)	0.153+ (0.082)		
Algeria	0.593*** (0.065)	0.359*** (0.067)		
Morocco/Tunisia	0.448*** (0.068)	0.267*** (0.069)		
Sub-Saharan Africa	0.752*** (0.070)	0.429*** (0.073)		
Turkey	0.184* (0.078)	0.478*** (0.082)		
Other	0.132+ (0.075)	0.174* (0.074)		
<i>Ref: G1</i> G1.5	-0.013 (0.047)	-0.065 (0.050)		
G2	0.080+ (0.046)	-0.200*** (0.047)		
G2.5	0.002 (0.052)	-0.341*** (0.052)		
<i>Gender/Ref: Men</i>				
Women	0.009 (0.032)	-0.005 (0.034)	-0.015 (0.094)	-0.057 (0.102)
<i>Age/Ref: 18-25</i>				
26-35	0.266*** (0.057)	0.055 (0.059)	0.261 (0.164)	0.568** (0.188)
36-45	0.206*** (0.061)	0.002 (0.064)	0.167 (0.168)	0.407* (0.196)
46+	0.098 (0.069)	-0.025 (0.072)	0.054 (0.181)	0.390+ (0.212)
<i>Income percentile/Ref: <10th</i>				
10th-25th	-0.141* (0.058)	-0.111+ (0.064)	0.045 (0.194)	0.294 (0.235)
25th-50th	-0.202*** (0.058)	-0.235*** (0.063)	-0.053 (0.188)	-0.293 (0.238)
50th-75th	-0.447*** (0.063)	-0.299*** (0.068)	-0.244 (0.192)	-0.240 (0.233)
75th-90th	-0.806*** (0.077)	-0.411*** (0.078)	-0.854*** (0.219)	-0.336 (0.247)
>90th	-1.218*** (0.099)	-0.475*** (0.086)	-0.940*** (0.266)	-0.514+ (0.271)
Unreported	-0.439*** (0.079)	-0.386*** (0.085)	-0.940** (0.290)	-0.170 (0.283)
<i>Education/Ref: No education</i>				
Primary school	-0.106* (0.053)	-0.083 (0.059)	-0.096 (0.189)	-0.547* (0.236)
Professional certificate	-0.188*** (0.049)	-0.247*** (0.054)	-0.285+ (0.149)	-0.819*** (0.188)
Vocational bac	-0.420*** (0.063)	-0.255*** (0.068)	-0.575** (0.179)	-0.975*** (0.222)
General bac	-0.432*** (0.060)	-0.283*** (0.065)	-0.598** (0.194)	-1.098*** (0.252)
2 years university	-0.465***	-0.256***	-0.995***	-1.209***

	(0.059)	(0.062)	(0.182)	(0.213)
>2 years university	-0.687***	-0.490***	-1.357***	-1.070***
	(0.053)	(0.056)	(0.184)	(0.198)
Unemployed	0.075+	0.035	0.088	-0.168
	(0.040)	(0.043)	(0.126)	(0.148)
Homeowner in another country	0.026	0.008	0.854**	0.447
	(0.049)	(0.051)	(0.295)	(0.325)
<i>Family status/Ref: Single no children</i>				
Single/one child	0.407***	-0.052	0.485**	-0.096
	(0.066)	(0.071)	(0.175)	(0.212)
Married/no children	0.102+	-0.072	-0.051	-0.195
	(0.057)	(0.057)	(0.153)	(0.161)
Married/one child	0.227***	-0.035	0.067	-0.087
	(0.054)	(0.055)	(0.152)	(0.167)
Married/two children	0.079	-0.007	-0.161	-0.289+
	(0.053)	(0.054)	(0.149)	(0.157)
Married/three or more children	0.151**	0.050	0.006	-0.118
	(0.056)	(0.059)	(0.176)	(0.194)
Municipality share of public housing	0.321***	-0.162***	0.152+	-0.063
	(0.045)	(0.029)	(0.084)	(0.084)
Municipality share of homeowners	-0.069***	-0.313***	-0.076**	-0.275***
	(0.011)	(0.013)	(0.027)	(0.041)
<i>City size/Ref: 10,000-19,999</i>				
20,000-49,999	-0.057	0.437**	0.318	0.760+
	(0.129)	(0.133)	(0.313)	(0.437)
50,000-99,999	0.007	0.112	0.489	0.462
	(0.122)	(0.128)	(0.302)	(0.430)
100,000-199,999	-0.034	0.028	0.098	0.038
	(0.142)	(0.151)	(0.337)	(0.567)
>200,000	-0.166	0.410***	0.518+	0.759+
	(0.116)	(0.123)	(0.286)	(0.419)
Department control	Yes		Yes	
Constant	-3.000***	2.482***	-0.936	1.281
	(0.420)	(0.302)	(0.806)	(0.868)
Rho	0.296***		0.432***	
	(0.023)		(0.083)	
Observations	9,089	9,089	1,627	1,627

Source: TeO 2008 (INED/INSEE). Standard errors in parentheses

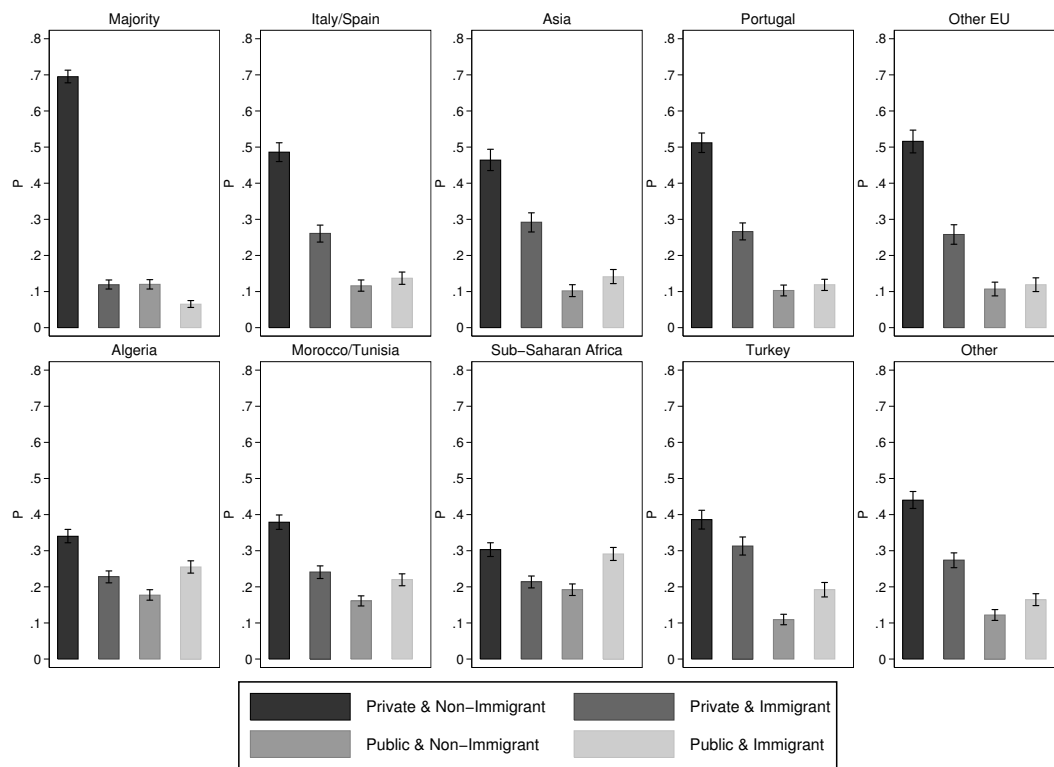
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

The first finding of note is that, except for Sub-Saharan Africans, the most frequent residential scenario consists in renting or owning in the private housing sector in neighborhoods that are not high concentration ones. Yet, the probability of this outcome varies substantially across groups. The majority has a 70% net probability of renting or owning in a non-immigrant neighborhood, which is higher than any other group. This is the case for a majority of Europeans and Asians (about 50%), but only about a third of Algerians, Moroccans/Tunisians, and Turks. Sub-Saharan Africans have the lowest probability of all groups of living in the private housing sector in non-immigrant neighborhoods (30%).

Likewise, strong group disparities are also found in the probability of living in public housing in immigrant neighborhoods. North Africans, Sub-Saharan Africans and Turks

have the highest net probability (20% or higher) of this outcome, which is at least ten percentage points higher than that of Europeans and Asians, and 15 points higher than that of the majority.

Figure 3.17 – *Typology of Housing and Neighborhoods: Joint Probabilities of Four Housing and Neighborhood Outcomes*



Source: TeO 2008 (INED/INSEE)

The results also shed light on the fact that living in public housing is not equally correlated with living in immigrant neighborhoods across groups. All non-Europeans are more likely to live in public housing in a immigrant neighborhood than in a non-segregated neighborhood, suggesting that these groups occupy a specific segment of the public housing market. French majority members, on the other hand, are more likely to live in the public housing sector outside immigrant neighborhoods than within them. For Europeans, the probabilities are about the same, suggesting equal access to public housing in immigrant and non-immigrant neighborhoods. Finally, all groups except North Africans and Sub-Saharan Africans have a greater odds of living in immigrant areas as renters and owners than as public housing residents.

3.4 Discussion and Conclusion

Using new French data, this chapter aimed to investigate patterns in immigrants' spatial incorporation in neighborhoods and housing and to identify the factors accounting for disparities between immigrants and the majority population. I used analyses which sought to explore how various dimensions of residential outcomes are intertwined, using several measures of neighborhood outcomes and housing tenure. These analyses also provided the first systematic empirical assessment of spatial assimilation factors in the French context, using detailed variables capturing immigrant length of stay, generation, mixed background, as well as socioeconomic status. Particular attention was also paid to the significance of immigrant origin in accounting for disparities in residential outcomes net of other factors, and how assimilation patterns varied across groups.

What conclusions can be drawn in light of these results? In what follows, I propose a discussion around three major findings that emerge from these analyses. The first concerns the predominance of immigrant origin in neighborhood and housing attainments. The second relates to the predictive power of classic assimilation variables, which varies according to immigrant origin groups and the type of residential outcome considered. The final point refers to the extent to which neighborhood characteristics are correlated and how these intertwine with housing outcomes.

The Prominence of Immigrant Origin Inequalities

The majority of the analyses presented here shed light on residential inequalities in both housing and neighborhoods which place non-European immigrants and their offspring, and North Africans, Sub-Saharan Africans and Turks in particular, in the most disadvantaged positions. First of all, Section 3.1 provides evidence of temporal dynamics that are reinforcing neighborhood inequalities between immigrant origin groups. Robust models controlling for municipality characteristics and individual heterogeneity show that non-European immigrants, net of immigrant generation and other factors, are living in neighborhoods with increasing shares of immigrants, the unemployed and co-ethnics over time. While increased segregation and spatial disadvantage are also found for French

majority members, the rise is more substantial for non-Europeans, producing a more pronounced disparity between these groups over time. European origin immigrants and their offspring, however, show lower shares of immigrants and co-ethnics in their local areas over time. Findings from Sections 3.2 and 3.3 using TeO data also solidified the prominence of immigrant origin disparities in neighborhood outcomes: North Africans, Sub-Saharan Africans and Turks are more likely to live in high share immigrant neighborhoods and have greater chances of residing in neighborhoods concentrating both immigrant populations and low-income households. The analysis of housing disparities showed a persistent net homeownership disadvantage for Sub-Saharan Africans. North Africans and Sub-Saharan Africans and also have a higher probability of living in public housing after controlling other factors, and also have the highest chances compared to other groups of doing so in segregated neighborhoods. Importantly, despite the role of assimilation factors that I discuss below, these disparities persist into the second generation and net of controls.

It is noteworthy that these immigrant origin disparities do not strictly reflect a European/non-European divide. Most findings reveal few distinctions between European origin immigrants and their offspring and French majority members. When disparities are observed in neighborhood or housing outcomes, these are absorbed by the effects of individual determinants. In some cases, a European advantage over the majority was even observed. This similarity between Europeans and French, in contrast to the disadvantaged positions of Africans and Turks, would point to such a European/non-European distinction. However, the residential situations of Asians do not consistently align with those of the most disadvantaged non-European groups. Net homeownership rates are high and spatial disadvantage is low among this group.

The case of Turks also merits further discussion. While observed to have disadvantage outcomes in most analyses, the housing outcomes of Turkish immigrants and their offspring revealed here are noteworthy and differ somewhat from the preliminary findings of Simon (1995). Higher homeownership rates distinguish this group from African minorities; still, an equally substantial share continues to live in public housing. However, contrary to North Africans and Sub-Saharan Africans, Turkish homeownership rates appear to be strongly determined by socioeconomic status; after controlling for these fac-

tors, Turkish minorities are even more likely to own their homes than the mainstream. Prior research has shown that the integration patterns of Turkish immigrants are marked by a low degree of acculturation (i.e., low rates of intermarriage, naturalization, French language use) contrasted with a relatively high degree of socioeconomic integration (Safi 2008, Simon 2003). Research suggests that ethnic ties via family networks and residential concentration may enable Turkish immigrants to draw from a pool of resources, possibly contributing to better labor market integration and greater homeownership rates. At the same time, Turks, particularly the second generation, are not immune to inequality and discrimination, experiencing high unemployment rates comparable to those of North African and sub-Saharan African minorities (Simon, 2003; Meurs et al., 2006), which may help account for the continued presence of these groups within the public housing sector. Labor market disadvantage notably impacts wealth accumulation, which in turn impacts mobility out of public housing.

All in all, the predominance of immigrant origin as a predictor net of other factors suggests that structural mechanisms, linked to origin, may be shaping spatial inequalities in France.

The Varying Predictive Power of Spatial Assimilation Variables

The story of immigrant origin inequalities in residential outcomes sketched above is also, however, intertwined with spatial assimilation patterns. The findings in this chapter do provide evidence in favor of spatial assimilation mechanisms, with however, a few caveats. First, while findings suggest that effects linked to immigrant generation, length of stay, and socioeconomic mechanisms exist, these factors do not consistently attenuate disparities with natives on all outcomes. Finally, spatial assimilation mechanisms appear to be potent in accessing homeownership, whereas stratification linked to immigrant origin is still persistent in public housing concentration, segregation and disadvantage. Moreover, socioeconomic factors, i.e. household income, appears to drive access to housing and desegregation out of disadvantaged neighborhoods more than desegregation out of immigrant neighborhoods. Finally, the role of these assimilation variables varies across immigrant origins.

In line with spatial assimilation's predictions, some findings show that the share of immigrants living in segregated and disadvantaged neighborhoods diminishes as a function of length of stay. Section 3.1 showed that, while the share of immigrants living in neighborhoods concentrating immigrants and the unemployed rose between 1990 and 2006, this increase concerns immigrants who arrived in France more recently than those with longer length of stay, though this pattern might be more related to period of arrival than residential history. The analyses using in TeO data collaborate this, evidenced by the somewhat improved outcomes related to as immigrant age of arrival (G1.5). Furthermore, signs indicate that the neighborhood outcomes of second generation immigrants are converging to those observed for the majority, especially among children of immigrants with one French native parent.

Nonetheless, length of stay and generational variables do not completely attenuate the gap in neighborhood outcomes between the majority and non-European immigrants. Among the G2.5 generation, disparities in living in high share immigrant neighborhoods are mostly insignificant between French and Europeans, while they hold for North-Africans, Sub-Saharan Africans and Asians. Analyses comparing the outcomes across detailed generational categories (G1, G1.5, G2 and G2.5) show that cumulative spatial disadvantage is largely passed on between G1 and G2 North African and Sub-Saharan African, while European and Asian first generations have less segregated, more affluent residential situations that they pass on to the second generation.

The role of immigrant length of stay, generation and mixed background are perhaps more palpable, however, in access to homeownership than any other outcome. As shown in Section, homeownership differences across immigrant origin groups and the majority are also strongly explained by other individual and contextual factors, even for groups such as Turks who start off with a strong homeownership disadvantage with respect to natives. Nonetheless, the impact of these factors vary quite substantially by immigrant origin: while their effect is quite salient among Asians, Europeans and Turks across generations, the homeownership gap persists among Sub-Saharan African second generation immigrants (G2) net of controls. Assimilation factors are less potent when it comes to accounting for disparities between immigrant and French majority members in public

housing occupancy. North Africans and Sub-Saharan Africans have the highest probability of living in public housing net of controls, and inequalities persist into the second generation and despite mixed background. Again, the individual/contextual characteristics of Turks, Asians and Europeans appear to be more powerful in accounting for public housing inequalities with the mainstream than they are for North Africans and Sub-Saharan Africans.

What can be said about assimilation mechanisms related to socioeconomic factors such as income? The significance of income is evident in some, but not all models, and again reveal variations according to immigrant origin group and the residential outcome investigated. Increasing income, surprisingly, is not a significant predictor in models predicting residency in high share immigrant neighborhoods. It is, however, more decisive for reducing the chances of living in low-income neighborhoods. Does this imply that socioeconomic status matters for immigrants' spatial disadvantage but is not as relevant for explaining segregation in immigrant neighborhoods? Moreover, while the effect of income does reduce cumulative spatial disadvantage, income-driven spatial assimilation seems to be especially important for non-Europeans. Distinctions between immigrant origin groups are even fully blurred when the top income categories are reached. But here again the speed of desegregation varies across groups: for Asians, belonging to the lower middle classes is associated with much lower segregation/disadvantage, while North Africans and Sub-Saharan Africans only have lower probabilities among the very highest earners. These differential patterns results in persistent inequalities between groups among the middle and middle-upper classes.

All of the analyses, whether focusing on neighborhoods or housing, reveal a consistently positive "G2.5 effect" which is large in magnitude and merits further attention. The lower segregation of second generation immigrants with mixed ascendancy is particularly pronounced for non-Europeans. This G2.5 effect is in line with other results documented for a wide range of outcomes using TeO data (Beauchemin et al., 2010).

Is this "G2.5 effect" revealing assimilation trends? One may indeed argue that the lower levels of segregation found for second generations with mixed background is a consequence of greater acculturation within mainstream French society, therefore confirming

the spatial assimilation hypothesis. But this result can also be understood from a structural perspective: having one French parent may weaken discrimination and exclusion mechanisms, especially for the most disadvantaged groups, opening up the way for de-segregation. If race does indeed have a significant effect on neighborhood outcomes, as suggested by our findings, mixed background may in this sense be understood as involving racial mechanisms, and thus be interpreted as an effect of mixed race.

It may also be argued that this G2.5 effect illustrates the pivotal role of intermarriage in the assimilation process (Gordon 1964). Through its within-household de-segregative effect, intermarriage would thus lead to the macro observation of neighborhood desegregation (Ellis et al., 2006). However, assimilation linked to mixed-marriage may also be, at least partly, confounded by selection effects that conform to underlying socioeconomic and ethnoracial processes. Mixed-couples are indeed shown to be positively socioeconomically selected (Constant et al., 2009). Research from France also highlights group-specific processes by which socioeconomic assimilation is not always coupled with high rates of intermarriage (Safi, 2008). All in all, to be fully interpreted in line with the assimilation hypothesis, this G2.5 effect should be accounted for in an empirical framework that better tackles the causality issue, which is beyond the scope of this research. Using longitudinal data that allows couple formation and residential outcomes to be explored in tandem may be a promising future avenue to explore in this direction.

Hence, the results point at once to spatial assimilation dynamics as well as to residential stratification linked to immigrant origin.

Contrasting Associations Between Dimensions of Residential Outcomes

In addition to evaluating spatial assimilation patterns across immigrant origin groups, a major aim of this chapter was to seize residential outcomes in their multidimensionality by identifying whether different types neighborhood characteristics and housing tenure overlap in similar ways for immigrants and natives. In other words, the analyses sought to determine whether segregation has the same “meaning” for all groups in terms of spatial disadvantage, and whether certain housing arrangements correspond to similar neighborhood outcomes.

First, the findings from Section 3.3 point to varying levels of spatial disadvantage among residents of high share immigrant areas. This evidence tends to undermine an assumption of spatial assimilation theory, according to which greater proximity to the mainstream translates into “better” residential positions. To the contrary, our findings highlight a discrepancy between segregation and neighborhood disadvantage reflected in the situation of the majority, Europeans, and Asians, who when living in areas with the highest shares of immigrants, are exposed to lower spatial disadvantage than North Africans, sub-Saharan Africans and Turks. The immigrant neighborhoods in which Europeans live thus appear to protect their inhabitants against underprivileged neighborhood characteristics. Clearly, the meaning of living in the most highly concentrated immigrant areas is not static across groups, and this prompts a more complex reading of spatial inequalities than the framework proposed by the spatial assimilation model.

Different associations between housing and neighborhoods are also found across groups. The results provide support that public housing tenure and segregated neighborhood attainment coincide more frequently for some groups than for others. North Africans, Sub-Saharan Africans and Turks have a higher probability than other groups of living in public housing in segregated neighborhoods. When Turks, Asians, Europeans and the French live in segregated neighborhoods, they have a higher probability of owning/renting on the private market than living in public housing. These findings appear to corroborate the hypothesis that neighborhood and housing “advantage” are not always intertwined, but that different configurations exist across groups.

To what extent are residential preferences an underlying mechanism of the disparities observed? The lack of survey data on residential preferences in France makes it difficult to ascertain the role of group-specific aspirations in producing spatial outcomes. Some qualitative research draws attention to the attractiveness of the public housing sector due to the affordable housing opportunities it provides, especially in urban areas where housing prices are high, and may represent an alternative to homeownership on tight real estate markets (Bonnal, Boumahdi, and Favard 2013). For some immigrant groups, African minorities in particular, accessing public housing may be a strategy resulting in upward residential mobility, improved living conditions and enhanced social status (Dietrich-Ragon, 2013).

Yet, these groups may also resort to public housing after experiencing exclusion on the private real-estate market or difficulties on the job market. Immigrants living in public housing in segregated neighborhoods may experience stigma and have aspirations to leave that they are unable to achieve.

In conclusion, the above analyses regarding neighborhood disparities between immigrants and the majority provides initial evidence that in France, spatial inequalities are shaped by intertwining mechanisms linked to migratory factors, class and immigrant origin. While classic measures of assimilation such as immigrant length of stay, generation and socioeconomic status do matter in shaping neighborhood and housing attainment, disadvantage in most residential outcomes impacting North Africans and Sub-Saharan Africans are still observed once these and other factors are taken into account. Moreover, the transmission of residential disadvantage between G1 and G2 immigrants of African origin, and to a lesser extent Turks, suggests that spatial inequalities in France are rooted in disparities linked to origin. All in all, spatial assimilation trends appear to coexist with place stratification patterns in French urban dynamics.

Chapter 4

The Dynamics of Spatial Incorporation: Residential Mobility and Housing Transitions

Introduction

The spatial incorporation of immigrants is, from a theoretical point of view, typically conceived of as a dynamic and temporal process. The tenets of spatial assimilation, as well as the assumptions behind theories of white flight, ethnic clustering and neighborhood change, all encompass the notion that mobility in neighborhoods and housing over time underpins and shapes the make-up of urban areas, working to reinforce or weaken segregation. Nevertheless, quantitative research on segregation and immigrants' spatial incorporation has long relied on methodologies that are grounded in cross-sectional data. While such data are powerful in providing a description of levels of segregation at a given moment in time, they do not give insight into who leaves segregated or disadvantaged neighborhoods, who stays or moves into them, and to what extent these patterns differ by ethnic/racial groups. Nor can such data make it possible to pinpoint the mechanisms that trigger or hinder these kinds of mobility processes.

Since the mid-1990s, but growing particularly since the mid-2000s, segregation research has seen a surge in studies that draw on individual-level longitudinal data combined with census data on cities and neighborhoods to describe patterns in residential mobility as well as the mechanisms (race/ethnicity, class, neighborhood/city characteristics) shaping these patterns. In the U.S., the bulk of these studies rely on data from the *Panel Study of Income Dynamics* (PSID), a longitudinal survey in which household moves, as well as the characteristics of original and destination neighborhoods, can be tracked over time (Massey et al. 1994; South and Deane, 1993; South and Crowder, 1998; South, Crowder and Chavez, 2005a; South, Crowder and Chavez, 2005b; South, Crowder and Pais, 2008).

A number of recent studies from European countries have followed suit, using similar kinds of data to test whether group-specific mobility patterns are contributing to sustaining segregation (Bolt and Van Kempen, 2010; Van Ham and Clark, 2009; Andersson and Bråmås, 2004; Bråmås, 2006). In France, although empirical research exists on residential mobility among the general population (Courgeau, 1985; Courgeau et al., 1998; Lelièvre and Bonvalet, 1994; Gobillon, 2001; Couet, 2006), only a few studies examine these patterns among the immigrant population (Bonvalet et al., 1995; Pan Ké Shon, 2010; Rath-

elot and Safi, 2014). All in all, this research points to diverging mobility patterns across racial/ethnic groups, with minorities displaying the lowest opportunities of moving into advantaged neighborhoods where majority members live, while majority members tend to leave local areas concentrating minorities. The mechanisms of mobility have also been investigated in this research, documenting the ways that class, intermarriage, but also the contextual characteristics of the original place of residence, shape mobility prospects.¹

This chapter follows in the tradition of these extant studies by taking a dynamic view on immigrants' spatial incorporation. To do so, I draw on individual-level longitudinal data from the *Echantillon démographique permanent* (EDP) merged with census data capturing the socioeconomic and immigrant composition of respondents' cities and neighborhoods. Adopting this methodological stance presents a number of advantages which make it possible to enrich and extend the findings on immigrants' neighborhood and housing outcomes proposed in Chapter 3.

First, EDP lends itself easily to an analysis of residential mobility patterns over time. Disparities in the likelihood of moving, of entering neighborhoods with low shares of immigrants and the unemployed, and of accessing homeownership can be assessed across detailed categories of immigrant origins. Second, due to its longitudinal design, EDP enables dynamic panel models to be used, in which residential mobility and housing transitions can be predicted according to individual and contextual characteristics measured at a prior moment in time. By taking into account the chronology of individual events, these models help better identify the mechanisms of residential outcomes. Finally, because the same individuals are observed at multiple dates, panel data allow for specific estimation designs which make it possible to control for stable, unobserved/unobservable characteristics of individuals. These individual fixed effects models help reduce endogeneity bias in order to estimate more precise effects of the determinants of transitions in neighborhoods and housing. Due to these improved modeling strategies, the analyses proposed in this section make it possible to better ascertain the mechanisms of immigrants' residential outcomes.

After presenting the data in Section 4.1, I develop the empirical analyses in two broad

¹A more thorough review of the empirical residential mobility literature is provided in Chapter 1.

sections. First, the analysis focuses on patterns of residential mobility among immigrants and the French majority (Section 4.2). I focus specifically on immigrant origin differences in the likelihood of moving, as well as the correlates of moving within or between municipalities. I then grasp residential mobility dynamics from the point of view of neighborhood outcomes, with a central focus on immigrants' chances for upward spatial mobility. I further explore variations in these patterns across immigrant origins. Finally, Section 4.3 explores transitions over time in housing tenure, focusing in particular on the determinants of immigrants' access to homeownership.

In addition to the spatial assimilation and place stratification frameworks, I draw insights from social stratification theory and the neighborhood effects literature to advance a few hypotheses about residential mobility patterns and their determinants.

Following the place stratification perspective, I expect to see immigrant origin disparities in mobility patterns. While I do not make specification predictions as to the rates of overall mobility, I anticipate that Non-Europeans, and Africans and Turks in particular, will exhibit mobility into neighborhoods concentrating immigrants and the unemployed. Furthermore, these same groups should show lower access to homeownership and higher transitions into public housing.

Social stratification theories of spatial inequalities place an emphasis on the fact that current outcomes in neighborhoods are in part a product of residential positions of advantage/disadvantage that are inherited from earlier in the life course or even from previous generations. In particular, two mechanisms may be at work which maintain individuals in neighborhoods with high shares of immigrants or the unemployed over time. The first has to do with the formation of residential preferences, which is shaped by long-term exposure to particular environments. The second relates to the reduced social mobility prospects available in segregated/disadvantaged neighborhoods which hinder possibilities for residential mobility (Sharkey, 2008, 2013).

Following these insights, I work with the assumption that the places where individuals come from shape moving patterns and outcomes. Moving will be particularly hard to achieve for individuals who originate in neighborhoods concentrating immigrants and the unemployed. Furthermore, assuming that stratification linked to immigrant origin inter-

acts with segregation and disadvantage, non-European immigrants in particular should exhibit lower mobility out of high concentration neighborhoods over time. This hypothesis joins the literature on place stratification which shows ethnoracial inequalities in the ability to access affluent neighborhoods where majority members live. In contrast, if white flight dynamics are at work in France, the majority population will tend to move out of local areas concentrating immigrants, and will have greater chances than immigrants of entering neighborhoods with lower shares of immigrants/the unemployed. Similarly, improving housing tenure, namely becoming a homeowner, will be hindered for those originating in the public housing sector, and particularly difficult to achieve for non-Europeans. We can thus expect differences in mobility patterns, neighborhood and housing transitions by immigrant origin.

I also make predictions about the individual determinants of residential transitions. As posited by spatial assimilation theory, factors such as immigrant generation, socioeconomic status and intermarriage will trigger mobility into areas with fewer immigrants/the unemployed. Becoming a homeowner should also coincide with residential mobility into such neighborhoods. However, the place stratification model and weak and strong versions of stratification (Logan and Alba, 1993) highlight the fact that even if such effects are observed, their returns may not be same across immigrant origin groups. For non-European immigrants, these factors may have a stronger effect if socioeconomic status, for instance, helps compensate for the disadvantage linked to origin. These variables may not be salient for all groups, on the other hand, if discrimination or other processes of exclusion block residential opportunities even among the upper classes. I thus further hypothesize that spatial assimilation factors will vary across immigrant origin.

4.1 The Data

Data come from INSEE's *Echantillon démographique permanent* (EDP) collected in 1990, 1999 and 2008. The sample is restricted to individuals over the age of 18 living in metropolitan France for whom no missing values are observed on the neighborhood (*IRIS*) variables and for whom an immigrant origin can be identified. The analysis further ex-

cludes individuals living in municipalities of less than 10,000 inhabitants at all dates. After these restrictions, the sample totals 456,816 individuals for whom information is collected at least once during the 1990-2008 period.

4.1.1 The Sample

Table 4.1 presents the structure of the panel. Given the longitudinal nature of the data, some individuals may be observed once, twice or three times over the three-date period. Slightly over half of the sample (55%) is observed at only one date: 33% in 2006, 12% in 1990 and 10% in 1999. As this chapter focuses on residential transitions over time, the analyses require a sample of individuals for whom at least one transition period (i.e. two consecutive dates of observation, or between t and $t+1$) is available. I thus further restrict the sample to include individuals who are observed at least twice consecutively: namely, in 1990 and 1999, in 1999 and 2008, or at all three dates. As the rows in bold in Table 4.1 show, nearly half (44%) of all individuals observed at least once in the panel experience this type of transition. A total of 20% are observed in the first period, i.e. between 1990 and 1999. 8% are observed in the second period, between 1999 and 2008. Finally, 16% are observed a total of three times, in 1990, 1999 and 2008. These 198,662 individuals are included in the final sample, and correspond to 271,805 individual/time observations.²

Table 4.1 – *Structure of the EDP Panel*

Freq.	%	Year
148,823	33	2008
90,852	20	1990, 1999
73,143	16	1990, 1999, 2008
53,163	12	1990
46,689	10	1999
34,667	8	1999, 2008
9,479	2	1990, 2008
456,816	100	

Source: EDP 1990-2008 (INSEE).

²Individual/time observations, sometimes abbreviated as $i*t$ observations, refer to the number of individual observations at different points in time. One individual observed at two different points in time corresponds to two individual*time observations.

A further sample restriction is implemented in the analyses focusing on housing outcomes (Section 4.3). In these analyses, the sample is restricted to individuals who are no longer living with their parents, in order to ensure that the measurement captures EDP individuals' own housing tenure and not that of their parents. As the sampling unit used by EDP is the individual rather than the household, EDP respondents are not necessarily themselves household heads. Household position is indicated by a variable identifying whether the individual is a father, mother, child, or other member of the household. I thus exclude all individual/time observations referring to children. The total sample size is 230,236 individual/time observations, or 169,710 individuals.

Table 4.2 displays the main sample by generation separately for immigrants and the majority (N=198,662/271,805 *i*t* observations).

Table 4.2 – *Sample of Immigrants and the Majority By Generation*

	Frequency	%
French majority		
<i>G1</i>	143,248	62
<i>G2</i>	86,478	38
<i>Total</i>	229,726	100
Immigrants		
<i>G1</i>	22,533	54
<i>G1.5</i>	4,223	10
<i>G2</i>	15,323	36
<i>Total</i>	42,079	100

Source: EDP 1990-2008 (INSEE). The frequencies report individual/time observations for the main sample.

G1, G1.5 and G2 immigrants are further distinguished on the basis of national origin. Eleven immigrant origin categories are created by referring to the national origin of EDP individuals or that of their parent(s): Spain, Portugal, Italy, other Europe, Algeria, Morocco, Tunisia, Asia (comprising Cambodia, Vietnam and Laos), Turkey, Sub-Saharan Africa, and other (all other national origins). Individuals for whom an origin could not be assigned due to missing data are excluded from the analysis.³ Table 4.3 displays the main sample by immigrant origin. Italians and Algerians are the largest groups. Much variation is seen across origins with respect to generation. The European sample shows about

³For further information on the construction of immigrant origin categories in EDP, see Chapter 2. While “other” immigrants are included in all analyses, I do not consistently display or discuss results concerning them as they are not of central importance to the analysis.

equal rates of first and second generations, while among non-Europeans, fewer second generation immigrants are found.

Table 4.3 – *Sample by Immigrant Origin*

	First Generation	Second Generation	Total
Other Europe	3,341	3,290	6,631
	50 %	50 %	100%
Spain	2,203	2,160	4,363
	50 %	50%	100%
Portugal	3,941	1,397	5,338
	74%	26%	100%
Italy	3,530	3,952	7,482
	47%	53%	100%
Algeria	4,179	2,581	6,760
	62%	38%	100%
Morocco	1,759	620	2,379
	74%	26%	100%
Tunisia	1,947	419	2,366
	82 %	18%	100%
Asia	1,424	105	1,529
	93%	7%	100%
Turkey	1,150	122	1,272
	90 %	10%	100 %
Sub-Saharan Africa	1,457	178	1,635
	89 %	11%	100 %
Others	1,825	499	2,324
	79 %	21%	100%
Total	170,004	101,801	271,805
	63 %	37%	100 %

Source: EDP 1990-2008 (INSEE). The frequencies report individual/time observations for the main sample. First generations include both G1 and G1.5 categories.

4.1.2 Attrition and Censoring

Restricting the sample to individuals who have appeared in the panel at two or more consecutive dates raises two main selection issues related to attrition and censoring. Attrition refers to the loss of individuals in the sample between two dates of observation. Attrition is inherent to longitudinal surveys and is related to the difficulty of tracking individuals over time due to death, migration, or other events that could prevent locating respondents. However, the likelihood that an individual is lost from the panel is not random, but is shaped by demographic and socioeconomic factors. Attrition may therefore undermine the representativeness of the sample. Immigrants in particular may be less likely to remain in the panel due to return migration. Highly mobile groups may also be harder to locate over time.

Restricting the EDP panel to individuals who experience a transition over time also results in the exclusion of individuals due to censoring. Censoring impacts individuals who are only observed at one moment in time at the most recent date of observation, in this case, 2008. Unlike the case of attrition, in which the transition is unknown due to the loss of individuals in the panel over time, in the case of censorship the transition is unknown simply because it has not yet occurred. The likelihood that an individual is censored is, nonetheless, also impacted by sociodemographic factors. Children may be particularly at risk if they were born between two EDP dates and thus enter the panel for the first time in 2008. Immigrants may also only appear in the panel at the latest date if they just recently migrated.

To identify the extent to which attrition and censoring modifies the composition of the sample used in this analysis, Table 6.7 in Appendix D presents summary statistics on both samples separately for the majority and immigrants: the full panel (N=456,816) and the sample of individuals who experience at least once transition (N=198,662). The composition of the sample changes somewhat in terms of immigrant origin. Non-Europeans appear to be less likely to be observed twice in the panel. Greater shares of immigrants of European origin are found in the transition sample, while most groups of non-Europeans see their numbers reduced. Other differences are found on demographic factors. The transition sample is slightly older, more likely to be married and have more children. The samples do not differ drastically on socioeconomic variables, although some selection into the transition sample based on higher socioeconomic status is found. The transition sample shows somewhat higher average shares of managers, intermediary professions and white collar workers. Individuals who experience a transition are also more likely to be homeowners.

4.1.3 Variables

Residential mobility is measured using a variable describing whether the EDP individual changed addresses between two dates of observation (t and $t+1$). The variable distinguishes three types of residential mobility: no move or move within the same neighbor-

hood, within-municipality moves and between-municipality moves.

Upward spatial mobility is measured by combining information on residential mobility and neighborhood characteristics in $t+1$. I divide the neighborhood share of immigrants, the unemployed and co-ethnics into quartiles distinguishing areas with the lowest shares of those groups (the bottom quartile) and areas with the highest shares (the top quartile). Upward spatial mobility is defined as moving into the first, second or third quartiles of those neighborhood characteristics. Downward spatial mobility indicates moves into the top quartile.

Housing tenure is measured using a three-level categorical variable, distinguishing homeowners, renters and public housing tenants.

The immigrant origin and generation categories are the same as those described in Chapter 2. Other independent variables include a proxy for length of stay, education, occupational category, marital status, number of children, gender, age, period of observation, household position and city size. Some models also control for the department or municipality of residence. Other contextual variables used in models include the neighborhood share of immigrants, the unemployed, and co-ethnics, the share of public housing and homeowners in the municipality. As the models used in this chapter are dynamic panel models, all time-variant factors are measured at the beginning of the period, i.e. in t . Further information on the coding of these variables and summary statistics are provided in Table 6.7 in Appendix D.

4.2 Residential Mobility Patterns and Determinants

Research on residential mobility emphasizes the complex processes involved in moving decisions. The ability to choose where one lives is mediated by a number of constraints, such as housing costs, employment opportunities and job location. Life cycle factors, such as age, getting married or divorced, and having children are also interrelated with moving decisions. Housing tenure is also an important correlate of mobility, as homeowners may be more likely to stay in place, while renters may move more frequently as they seek to improve their housing or neighborhood conditions.

Beyond these individual-level factors, perspectives on immigrants' and minorities' residential mobility highlight that the ability or choice to move, and especially the kinds of neighborhoods one moves to, may also vary across immigrant origin. Furthermore, the kinds of neighborhoods in which one lives prior to moving may also impact the decision or ability to leave or stay. In this section, immigrants' residential mobility is assessed in two ways. First, I explore immigrant origin differences in the likelihood of moving short or long distances and the factors associated with these moves. Second, I switch the perspective to neighborhood destinations, investigating which groups are most likely to experience upward spatial mobility, or in other words, moves into neighborhoods with low shares of immigrants and the unemployed. The focus is then placed on the determinants of immigrants' upward spatial mobility in particular.

4.2.1 Moving or Staying Put? Patterns in Mobility Distance

Table 4.4 displays rates of residential mobility by immigrant origin. The chances of having moved over the period as well as the distance of moves vary by immigrant origin. Yet, disparities between groups are not substantial. The French majority, Spanish, Italian, other European and Tunisian immigrants show the highest rates of *immobility*, with between 62 and 68% who stay in place over the period. Non-Europeans (Algerians, Asians, Sub-Saharan Africans, Turks, and Moroccans), but also Portuguese, move somewhat more frequently. Immigrants' and the majority also show different propensities to move short and long distances. When French and Europeans move, they are more likely to change cities than move within them. Among Non-Europeans, the pattern tends in the opposite direction: Algerians, Moroccans, Tunisians, Sub-Saharan Africans, and Turks, exhibit the highest rates of short distance moves, with over 20% remaining in the same municipality. Most Non-Europeans are more likely to move within the municipality than outside of it, with the exception of Asians and Sub-Saharan Africans.

I apply a multinomial logistic regression model to investigate further the determinants of residential mobility. Two specifications are run separately on immigrants (Model 1a) and the majority (Model 1b) in order to observe whether the correlates of moving function

Table 4.4 – *Residential Mobility By Immigrant Origin*

	No Move	Within Municipality	Between Municipality
Majority	64	14	22
Other EU	68	13	19
Spain	64	16	20
Portugal	56	21	22
Italy	69	14	17
Algeria	57	24	20
Morocco	50	26	24
Tunisia	62	21	17
Asia	57	16	27
Turkey	52	28	19
Sub-Saharan Africa	51	20	29
Total	63	15	22

Source: EDP 1990-2008 (INSEE). The table shows percentages.

in similar ways for both groups.⁴ The models predict the log-odds of moving between municipalities or moving within municipalities compared to not moving at all. These models use lagged independent variables measured in t so as to estimate the probability of moving between t and $t+1$ based on explanatory variables measured prior to moving. All models control for gender, age, age-squared, education, occupational status, marital status, number of children, period of observation, housing tenure, and household position. The models also include contextual controls measured at the neighborhood and municipality level in t , namely the *IRIS* share of immigrants and unemployment rate, the municipality size and the department of residence. Model 1a further controls for the *IRIS* share of co-ethnics, generation (G1, G1.5 and G2), immigrant origin, and the proxy for length of stay. Full results from Model 1a are reported in Table 4.5; Model 1b is included in Table 4.6.

Table 4.5 – *Multinomial Logistic Regression Model Predicting Immigrants' Residential Mobility (Model 1a)*

	Within municipality move	Between municipality move
<i>Ref: Italy</i>		
Other EU	-0.074 (0.058)	0.029 (0.054)
Spain	0.055 (0.063)	0.096 (0.060)
Portugal	0.196**	0.041

⁴The decision to run two specifications, rather than using interactions between immigrant origin and the covariates of interest, is also motivated by the fact that the co-ethnic share of the original neighborhood does not apply to the majority.

	(0.062)	(0.060)
Algeria	0.211***	-0.093†
	(0.055)	(0.056)
Morocco	0.115	-0.182*
	(0.075)	(0.075)
Tunisia	0.212**	-0.054
	(0.074)	(0.077)
Asia	-0.017	0.338***
	(0.095)	(0.084)
Turkey	0.155†	-0.125
	(0.092)	(0.099)
Sub-Saharan Africa	0.018	0.069
	(0.090)	(0.083)
<i>Generation/Ref: G1</i>		
G1.5	-0.055	-0.057
	(0.060)	(0.059)
G2	-0.002	0.003
	(0.055)	(0.055)
<i>Length of stay proxy/Ref: <1968</i>		
1968-1975	0.133**	-0.019
	(0.044)	(0.044)
1975-1982	0.075	-0.104†
	(0.055)	(0.056)
1982-1990	0.204***	0.039
	(0.061)	(0.063)
1990-1999	0.234**	-0.150†
	(0.082)	(0.083)
Men	-0.243***	-0.205***
	(0.053)	(0.049)
Age	-0.128***	-0.182***
	(0.007)	(0.007)
Age-squared	0.001***	0.001***
	(0.000)	(0.000)
<i>Variables measured in t</i>		
<i>Education/Ref: No degree</i>		
Professional certificate	0.105**	0.208***
	(0.041)	(0.040)
Bac	0.201***	0.516***
	(0.054)	(0.049)
University	0.436***	0.763***
	(0.059)	(0.053)
<i>Occupation/Ref: Blue collar</i>		
Other	-0.018	0.178*
	(0.079)	(0.076)
Managers	-0.028	0.127†
	(0.087)	(0.077)
Intermediary professions	-0.039	0.090
	(0.065)	(0.060)
White collar	0.010	0.099†
	(0.051)	(0.051)
Unemployed (never worked)	-0.358**	-0.467***
	(0.110)	(0.118)
Students	-0.466***	-0.202**
	(0.071)	(0.067)
Inactive	-0.110*	-0.123*
	(0.056)	(0.060)
Unemployed	0.005	-0.000
	(0.056)	(0.058)
<i>Marital status/Ref: Married to French</i>		
Single	0.240***	0.151**
	(0.057)	(0.054)

Married to immigrant	0.099*	-0.186***
	(0.046)	(0.046)
Divorced	0.234*	0.053
	(0.096)	(0.105)
Widowed	0.385***	0.231**
	(0.079)	(0.080)
Number of children	-0.026†	-0.027
	(0.015)	(0.016)
<i>Housing Tenure/Ref: Renters</i>		
Homeowner	-1.193***	-0.858***
	(0.041)	(0.039)
Public housing	-0.404***	-0.488***
	(0.039)	(0.041)
<i>Household Position/Ref: Father</i>		
Mother	-0.399***	-0.410***
	(0.065)	(0.063)
Child	-0.322***	-0.492***
	(0.074)	(0.071)
Other	-0.163*	-0.069
	(0.067)	(0.065)
IRIS share of immigrants	1.135***	1.032***
	(0.237)	(0.247)
IRIS share of co-ethnics	-0.726	-2.980***
	(0.450)	(0.528)
IRIS unemployment rate	0.724***	-0.152
	(0.198)	(0.225)
<i>City size/Ref: <100,000</i>		
>100,000	-0.046	0.064
	(0.049)	(0.052)
Paris region	-0.240†	0.107
	(0.137)	(0.123)
<i>Period/Ref: 1990-1999</i>		
1999-2008 (2004)	-0.560***	-0.119*
	(0.063)	(0.059)
1999-2008 (2005)	-0.680***	-0.174**
	(0.061)	(0.057)
1999-2008 (2006)	-0.689***	-0.111†
	(0.062)	(0.057)
1999-2008 (2007)	-0.655***	-0.077
	(0.062)	(0.057)
1999-2008 (2008)	-0.713***	-0.216***
	(0.063)	(0.058)
Department of residence	Yes	Yes
Constant	2.872***	4.297***
	(0.214)	(0.216)
Observations	37,878	37,878

Source: EDP 2008 (INSEE). Base outcome is no move. Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

How do individual-level factors impact mobility, and are patterns the same for immigrants and the majority? For both immigrants and the majority, class does appear to play an important role in moving opportunities. Individuals with higher levels of education are more likely to move both short and long distances. Among immigrants, managers have greater odds of moving to another city compared to blue collar workers, while individu-

als who have never been employed have weaker mobility prospects. Occupational status seems to be even more decisive in shaping moving opportunities among the majority. Managers have higher odds of moving short and long distances, while the intermediary professions and white collar workers also have higher chances of moving far. Similar to immigrants, French majority members who have never worked are also less likely to move.

Immigrants and the majority are also less likely to move as they get older, as they have children and when they own their homes or live in public housing. Marriage, however, does not show the same relationship to mobility across groups. Compared to being married to a French person, both immigrants and the majority are more likely to move when they are single. However, immigrants who are married to another immigrant (rather than a French person) are less likely to move to another city, but are more likely to move within the same city. In other words, it appears that having a French spouse favors immigrants' long distance mobility. The likelihood that majority members will move, however, does not appear to differ according to the origin of their spouse.

A central hypothesis to the place stratification perspective is that the mobility patterns of immigrants and the majority will differ depending on the presence of immigrants or minorities in the original neighborhood. These models further help identify how immigrants' and the majority's chances of moving are influenced by the characteristics of the neighborhoods in which they live. Indeed, the higher the share of immigrants in the original neighborhood, the more likely it is that both immigrants and the majority will move out. Immigrants and the majority also show increased chances of moving out - but not moving far - when their neighborhoods have high rates of unemployment. Yet, interestingly, immigrants are less likely to move out of their cities when their original neighborhood has high shares of co-ethnics.

What remains of differences in mobility patterns linked to origin once these various factors are taking into account? As Model 1a shows, Portuguese, Algerian, Tunisian and Turkish immigrants, compared to Italians, are still more likely to move short distances. The long distance mobility prospects of Algerians and Moroccans, however, appear to be particularly restricted. These groups are more likely not to move at all than to change cities. Asians are the only group who are significantly more likely than Italians to ex-

perience a long distance move. No differences are found for Sub-Saharan Africans once individual and contextual factors are accounted for.

Table 4.6 – *Multinomial Logistic Regression Model Predicting the Majority's Residential Mobility (Model 1b)*

	Within municipality move	Between municipality move
<i>Generation/Ref: G1</i>		
G2	-0.042* (0.021)	-0.064*** (0.019)
Men	-0.174*** (0.025)	-0.022 (0.022)
Age	-0.183*** (0.003)	-0.226*** (0.003)
Age-squared	0.001*** (0.000)	0.002*** (0.000)
<i>Variables measured in t</i>		
<i>Education/Ref: No degree</i>		
Professional certificate	0.023 (0.018)	0.138*** (0.017)
Bac	0.087*** (0.023)	0.452*** (0.019)
University	0.268*** (0.024)	0.595*** (0.021)
<i>Occupation/Ref: Blue collar</i>		
Other	0.186*** (0.035)	0.303*** (0.033)
Managers	0.111*** (0.032)	0.418*** (0.028)
Intermediary professions	-0.020 (0.026)	0.283*** (0.024)
White collar	0.017 (0.023)	0.226*** (0.022)
Unemployed (never worked)	-0.172* (0.081)	-0.267*** (0.081)
Students	-0.295*** (0.037)	0.353*** (0.033)
Inactive	-0.021 (0.029)	0.173*** (0.028)
Unemployed	0.111*** (0.031)	0.262*** (0.030)
<i>Marital status/Ref: Married to French</i>		
Single	0.212*** (0.024)	0.051* (0.021)
Married to immigrant	0.017 (0.046)	-0.052 (0.041)
Divorced	0.260*** (0.038)	0.063† (0.037)
Widowed	0.454*** (0.028)	0.411*** (0.026)
Number of children	-0.004 (0.008)	-0.045*** (0.007)
<i>Housing Tenure/Ref: Renters</i>		
Homeowner	-1.341*** (0.017)	-1.151*** (0.015)
Public housing	-0.425*** (0.019)	-0.579*** (0.019)
<i>Household Position/Ref: Father</i>		

Mother	-0.171*** (0.030)	-0.146*** (0.027)
Child	0.092** (0.034)	-0.082** (0.031)
Other	-0.084** (0.030)	0.023 (0.026)
<i>IRIS</i> share of immigrants	0.862*** (0.127)	0.981*** (0.116)
<i>IRIS</i> unemployment rate	0.648*** (0.100)	0.048 (0.099)
<i>City size/Ref: <100,000</i>		
>100,000	0.052* (0.021)	0.206*** (0.020)
Paris region	0.055 (0.075)	0.235*** (0.056)
<i>Period/Ref: 1990-1999</i>		
1999-2008 (2004)	-0.493*** (0.029)	-0.144*** (0.024)
1999-2008 (2005)	-0.553*** (0.028)	-0.205*** (0.024)
1999-2008 (2006)	-0.603*** (0.028)	-0.230*** (0.024)
1999-2008 (2007)	-0.678*** (0.029)	-0.233*** (0.024)
1999-2008 (2008)	-0.729*** (0.029)	-0.363*** (0.024)
Including department control		
Constant	4.069*** (0.094)	5.079*** (0.086)
Observations	222,201	222,201

Source: EDP 2008 (INSEE). Base outcome is no move. Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

What can be gathered from these patterns in long distance and short distance mobility? Moving short or long distances do not necessarily reflect the same processes, be they changes in the life cycle, professional mobility or housing transitions. Long distance moves may more often occur as individuals find better job opportunities (Gobillon, 2001), try to reduce commuting time (Van Ommeren et al., 1999; Deding and Filges, 2010) or seek better schools for their children. These types of moves may also be facilitated for individuals how have more stable financial situations or who make the move to homeownership. Residential mobility research supports the interconnectedness of long distance mobility and job opportunities (Böheim and Taylor, 2002; Gobillon, 2001). On the other hand, short distance moves may be more common in the case of separation or divorce. Short distance moves may be common among renters as they seek to improve their quality of housing or if a move is necessitated due to lease termination, increasing rents, or expulsion.

In short, long distance moves may represent greater opportunities, or reflect the im-

plementation of residential preferences, while short distances moves could more often be the reflection of specific constraints on mobility. The decreased chances of most non-Europeans to move long distances is thus suggestive that these groups may have fewer moves to opportunities (for jobs, schools, or homeownership) in different cities, while experiencing moves that are restricted to their original urban area. The restricted geographic mobility of these groups within the same city begs the question of whether they are also remaining in similar neighborhoods over time.

In the following analysis, I explore the links between residential mobility and upward spatial mobility, by looking at whether immigrants and the majority have similar chances of moving into neighborhoods with low shares of immigrants and the unemployed. Building on the findings here, I also pay particular attention to whether immigrants and the majority remain in similar types of neighborhoods over time.

4.2.2 Upward and Downward Spatial Mobility

Table 4.7 shows the types of neighborhoods that movers enter over the period.⁵ The table breaks down neighborhood destinations, measured by quartiles of the immigrant share, by immigrant origin, as well as by the characteristics of the original neighborhood prior to moving. Patterns of both downward spatial mobility (entering a neighborhood with high shares of immigrants) and upward spatial mobility (entering a neighborhood with low shares of immigrants) can be apprehended here.

First of all, the French majority are the least likely to move into neighborhoods concentrating immigrants (the top quartile). Regardless of original location, only 22% enter the top quartile of the immigrant share after moving. Most French movers end up in the middle quartiles of the immigrant share. 26% experience upward spatial mobility, entering the bottom quartile of the immigrant share.

Higher rates of downward mobility, and lower rates of upward mobility, are observed among immigrants, but with important differences by origin. About a third of European movers enter high concentration areas, while about 11 to 17% access neighborhoods with

⁵In the rest of the analyses, movers are defined as individuals who experienced either a within or between municipality move between t and $t+1$. Frequency tables are also shown for these analyses in Tables 6.8 and 6.9 in Appendix D.

the lowest shares of immigrants. Though Europeans differ from the majority, they stand out in particular from the moving trajectories of non-Europeans. Over 50% of non-Europeans move into the top quartile, while very few, less than 9%, experience upward spatial mobility.

Contrasting trajectories are also evident if we consider neighborhood destinations according to the local unemployment rate, as Table 4.8 shows. However, in this case, moving patterns do not reflect a European/non-European divide. Europeans and the majority are strikingly similar in neighborhood outcomes, and have about the same chances of entering neighborhoods with high disadvantage as they do of entering neighborhoods with low disadvantage. Like these two groups, Asians also appear to have access to the full spectrum of neighborhoods, with just a slightly higher share entering the top quartile (32%). But a distinctive mobility pattern is again found among North Africans, Sub-Saharan Africans and Turks. These groups have the highest chances of ending up in the most disadvantaged neighborhoods, with between 36 and 46% who enter the top quartile after moving. The likelihood of upward spatial mobility, on the other hand, is quite infrequent.

These tables also provide a glimpse into the ways that original location shapes mobility destinations. Specifically, as indicated by the bold figures running diagonally through the table, individuals tend to move into similar neighborhoods to the ones they previously lived in. For instance, no matter the group, the chances of moving into the top quartile are considerably higher among those who lived in such neighborhoods prior to moving. The same is true among individuals who originate in the bottom, second or third quartiles: they are all more likely to end up in the same quartile after moving. Interestingly, the chances of remaining in the same type of neighborhood tend to be strongest among those who originate in the top or bottom quartiles. Patterns are similar for the two neighborhood measurements, and suggest a certain continuity in neighborhood outcomes over time, especially in neighborhoods with very high or very low concentrations of immigrants or the unemployed.

Yet again, not all origins are at the same risk of remaining in high or low concentration areas over time. About half, or little over half, of Italian, Spanish, Portuguese and other EU immigrants who previously lived in the top quartile of the immigrant share

Table 4.7 – *Neighborhood Outcomes of Movers According to Quartiles of the Immigrant Share Before and After Moving*

Origin Quartiles in t	Destination Quartiles in $t+1$			
	<25th	25th-50th	50-75th	>75th
<i>Majority</i>				
< 25th	56	24	12	8
25th-50th	25	35	26	14
50th-75th	15	27	34	24
>75th	11	19	28	43
Total	26	26	25	22
<i>Other EU</i>				
< 25th	46	26	17	11
25th-50th	21	34	28	16
50th-75th	10	24	38	28
>75th	7	13	26	54
Total	17	23	28	32
<i>Spain</i>				
< 25th	37	32	15	15
25th-50th	13	43	33	12
50th-75th	8	29	38	25
>75th	5	18	31	46
Total	11	29	32	28
<i>Portugal</i>				
< 25th	40	31	17	13
25th-50th	15	34	34	16
50th-75th	9	22	39	30
>75th	4	12	26	57
Total	11	21	31	38
<i>Italy</i>				
< 25th	38	26	22	14
25th-50th	12	39	34	15
50th-75th	9	28	38	24
>75th	7	14	29	49
Total	12	25	33	30
<i>Algeria</i>				
< 25th	32	24	28	16
25th-50th	14	27	29	30
50th-75th	6	20	32	42
>75th	3	10	21	66
Total	7	15	25	52
<i>Morocco</i>				
< 25th	39	28	15	18
25th-50th	15	28	30	26
50th-75th	5	20	33	41
>75th	3	10	20	66
Total	7	16	24	53
<i>Tunisia</i>				
< 25th	31	24	17	29
25th-50th	16	28	38	18
50th-75th	5	15	40	39
>75th	1	7	20	72
Total	5	12	27	55
<i>Asia</i>				
< 25th	34	11	16	39
25th-50th	19	29	22	30
50th-75th	5	19	24	52
>75th	5	10	20	65
Total	9	14	21	57
<i>Turkey</i>				
< 25th	16	24	16	44
25th-50th	10	24	22	44
50th-75th	8	12	36	44
>75th	3	8	20	69
Total	5	11	23	61
<i>Sub-Saharan Africa</i>				
< 25th	35	20	17	28
25th-50th	14	21	32	33
50th-75th	6	19	26	50
>75th	3	8	16	73
Total	7	13	20	60

Source: EDP 1990-2008 (INSEE). Table shows row percentages.

Table 4.8 – *Neighborhood Outcomes of Movers According to Quartiles of the Unemployment Rate Before and After Moving*

Origin Quartiles in t	Destination Quartiles in $t+1$			
	<25th	25th-50th	50-75th	>75th
<i>Majority</i>				
< 25th	33	28	24	15
25th-50th	28	27	25	20
50th-75th	22	26	27	25
>75th	16	21	27	36
Total	25	26	26	24
<i>Other EU</i>				
< 25th	38	29	20	13
25th-50th	27	27	27	19
50th-75th	20	23	24	33
>75th	14	17	26	43
Total	25	24	24	27
<i>Spain</i>				
< 25th	30	28	22	20
25th-50th	24	28	28	20
50th-75th	22	23	27	29
>75th	16	21	26	36
Total	22	25	26	27
<i>Portugal</i>				
< 25th	35	30	24	12
25th-50th	29	28	23	19
50th-75th	27	28	22	22
>75th	19	21	25	35
Total	28	27	24	22
<i>Italy</i>				
< 25th	35	27	22	16
25th-50th	27	28	26	19
50th-75th	21	27	27	26
>75th	13	19	30	39
Total	23	25	27	25
<i>Algeria</i>				
< 25th	19	26	28	27
25th-50th	13	23	28	36
50th-75th	15	18	23	44
>75th	9	11	24	56
Total	12	17	25	46
<i>Morocco</i>				
< 25th	24	28	28	20
25th-50th	20	21	28	32
50th-75th	18	21	29	32
>75th	11	15	24	50
Total	16	19	26	39
<i>Tunisia</i>				
< 25th	24	18	26	32
25th-50th	19	19	23	39
50th-75th	9	23	28	41
>75th	10	17	24	48
Total	14	19	25	41
<i>Asia</i>				
< 25th	29	21	24	26
25th-50th	25	25	22	28
50th-75th	18	16	36	30
>75th	16	21	25	38
Total	21	21	26	32
<i>Turkey</i>				
< 25th	20	28	23	29
25th-50th	9	26	27	38
50th-75th	18	13	33	36
>75th	10	17	24	49
Total	13	19	26	43
<i>Sub-Saharan Africa</i>				
< 25th	16	26	30	28
25th-50th	14	28	26	32
50th-75th	15	24	30	31
>75th	11	20	21	48
Total	14	24	26	36

Source: EDP 1990-2008 (INSEE). Table shows row percentages.

remain there after moving. In contrast, 73% of Sub-Saharan Africans originating in such neighborhoods also move into neighborhoods with the highest shares of immigrants. Patterns are similar for Tunisians (72%), Turks (69%), Algerians and Moroccans (66%) and Asians (65%). North Africans, Sub-Saharan Africans and Turks originating in neighborhoods with high unemployment also have increased chances compared to other groups of moving into similar neighborhoods.

When it comes to moving from one low concentration neighborhood to another, differences between groups are not as prominent. The majority show the greatest rates of staying in low concentration immigrant neighborhoods over time (56%). European and non-Europeans do not differ substantially on this aspect, but this is partially due to the fact that few non-Europeans originate in these neighborhoods in the first place. If we consider the unemployment indicator, individuals appear stay in the the bottom quartile over time at lower rates than in the bottom quartile of the immigrant share, but in this case, non-Europeans are clearly less likely than the majority and Europeans to move from one low concentration neighborhood to another.

Hence, these patterns suggest that upward spatial mobility may not only be less common among non-Europeans, but specifically among non-Europeans *originating* in immigrant or disadvantaged neighborhoods.

To model upward and downward spatial mobility, I conduct two multinomial logistic regressions. The dependent variable combines residential mobility and neighborhood outcomes, coded as a three-level categorical variable: 1) No move, 2) Move to a low concentration area (upward spatial mobility) between t and $t+1$ and 3) Move to a high concentration area between $t+1$ (downward spatial mobility). A high concentration area is defined as living in the top quartile of *IRIS* characteristics in $t+1$, while a low concentration area is defined as living in the first, second or third quartiles of the *IRIS* characteristics in $t+1$. The models predict the log-odds of moving into a low concentration or high concentration neighborhood compared to not moving at all. Model 2a predicts mobility to low or high concentration areas as measured by the immigrant share and Model 2b predicts mobility to low or high concentration areas as measured by the unemployment rate. Immigrants and the majority are included together in both models.

As in the previous residential mobility models, these are dynamics models in which the covariates are lagged, namely measured in t prior to mobility. The same battery of independent variables as in the previous models are included here.⁶ Full model results are reported in Table 4.9.

Before delving into immigrant origin disparities, let's first focus on the correlates of upward or downward spatial mobility. The factors associated with mobility trajectories are very similar in both models, regardless of whether the neighborhood immigrant share or unemployment outcome are considered. The second generation has greater chances than the first generation of moving into low concentration neighborhoods. Individuals with higher education and who belong to the upper professional categories (manager, intermediary professions, white collar workers) are also more likely to experience this type of mobility than blue collar workers. Inversely, these same professional categories are less likely to move into high concentration neighborhoods. Older and married people, as well as those with children, are less likely to experience either upward or downward mobility, as are homeowners and public housing residents. Echoing findings in the previous models, the mobility patterns of those married to immigrants differ from those married to a French majority member. The former have higher odds of entering a high concentration neighborhood than the latter. Finally, the relationship between original and destination neighborhoods that emerged from the descriptive analysis is found here: immigrants and the majority are less likely to experience upward mobility when their original neighborhoods have high shares of immigrants or the unemployed. On the other hand, they are more likely to move to a high concentration neighborhood when originating in such neighborhoods.

Table 4.9 – *Multinomial Logistic Regression Model Predicting Upward and Downward Spatial Mobility (Models 2a and 2b)*

M2a		M2b	
Move to low	Move to high	Move to low	Move to high
immigrant <i>IRIS</i>	immigrant <i>IRIS</i>	unemployment <i>IRIS</i>	unemployment <i>IRIS</i>

⁶These include immigrant origin, generation, the proxy for length of stay, gender, age, age-squared, education, occupational status, marital status, number of children, period of observation, housing tenure, household position, city size, and department of residence. Model 2a further controls for the share of immigrants in the original neighborhood while Model 2b controls for the unemployment rate in the original neighborhood.

<i>Ref: Majority</i>				
Other EU	-0.148*** (0.036)	-0.102* (0.050)	-0.151*** (0.036)	-0.099† (0.051)
Spain	-0.071† (0.043)	-0.079 (0.060)	-0.058 (0.042)	-0.133* (0.060)
Portugal	-0.059 (0.040)	-0.041 (0.049)	-0.033 (0.038)	-0.033 (0.057)
Italy	-0.138*** (0.034)	-0.046 (0.047)	-0.119*** (0.033)	-0.076 (0.050)
Algeria	-0.503*** (0.038)	0.216*** (0.040)	-0.426*** (0.037)	0.252*** (0.041)
Morocco	-0.671*** (0.061)	0.112† (0.062)	-0.469*** (0.056)	0.044 (0.069)
Tunisia	-0.347*** (0.067)	0.023 (0.064)	-0.338*** (0.061)	0.301*** (0.070)
Asia	-0.275*** (0.081)	0.141† (0.077)	-0.103 (0.069)	0.319*** (0.092)
Turkey	-0.537*** (0.088)	0.306*** (0.081)	-0.314*** (0.078)	0.490*** (0.091)
Sub-Saharan Africa	-0.517*** (0.079)	0.110 (0.073)	-0.312*** (0.067)	0.420*** (0.085)
Other	-0.316*** (0.068)	0.157* (0.063)	-0.127* (0.055)	0.322*** (0.080)
<i>Generation/Ref: G1</i>				
G2	0.103*** (0.016)	0.010 (0.024)	0.097*** (0.016)	-0.013 (0.024)
<i>Length of stay proxy/Ref: <1968</i>				
1968-1975	0.089*** (0.016)	0.147*** (0.023)	0.092*** (0.016)	0.162*** (0.023)
1975-1982	-0.002 (0.025)	0.165*** (0.033)	0.025 (0.024)	0.175*** (0.034)
1982-1990	0.081* (0.033)	0.302*** (0.039)	0.143*** (0.031)	0.310*** (0.042)
1990-1999	0.025 (0.049)	0.228*** (0.057)	0.053 (0.044)	0.453*** (0.067)
Men	-0.134*** (0.020)	-0.139*** (0.026)	-0.128*** (0.019)	-0.155*** (0.026)
Age	-0.160*** (0.003)	-0.148*** (0.004)	-0.162*** (0.003)	-0.147*** (0.004)
Age-squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
<i>Variables measured in t</i>				
<i>Education/Ref: No degree</i>				
Professional certificate	0.106*** (0.014)	0.009 (0.022)	0.129*** (0.014)	-0.027 (0.020)
Bac	0.355*** (0.017)	0.173*** (0.025)	0.395*** (0.017)	0.063* (0.026)
University	0.540*** (0.018)	0.296*** (0.027)	0.575*** (0.018)	0.071* (0.029)
<i>Occupation/Ref: Blue collar</i>				
Other	0.228*** (0.026)	-0.064 (0.045)	0.227*** (0.027)	-0.021 (0.042)
Managers	0.288*** (0.024)	-0.012 (0.036)	0.262*** (0.023)	-0.102* (0.041)
Intermediary professions	0.127*** (0.020)	-0.122*** (0.031)	0.130*** (0.020)	-0.115*** (0.031)
White collar	0.126*** (0.018)	-0.086** (0.028)	0.131*** (0.018)	-0.055* (0.026)
Unemployed (never worked)	-0.283*** (0.061)	0.026 (0.077)	-0.371*** (0.063)	-0.034 (0.069)

Students	0.285*** (0.029)	0.066† (0.038)	0.276*** (0.028)	0.145*** (0.038)
Inactive	0.023 (0.022)	-0.042 (0.034)	-0.004 (0.023)	-0.009 (0.031)
Unemployed	0.128*** (0.024)	0.112** (0.035)	0.055* (0.024)	0.243*** (0.031)
<i>Marital status/Ref: Married to French</i>				
Single	0.162*** (0.019)	0.294*** (0.027)	0.133*** (0.018)	0.365*** (0.027)
Married to immigrant	-0.040 (0.026)	0.215*** (0.032)	0.016 (0.025)	0.177*** (0.035)
Divorced	0.269*** (0.030)	0.459*** (0.049)	0.289*** (0.030)	0.331*** (0.044)
Widowed	0.371*** (0.023)	0.477*** (0.035)	0.348*** (0.023)	0.518*** (0.033)
Number of children	-0.056*** (0.006)	0.000 (0.009)	-0.063*** (0.006)	0.000 (0.009)
<i>Housing Tenure/Ref: Renters</i>				
Homeowners	-1.229*** (0.013)	-1.152*** (0.020)	-1.167*** (0.013)	-1.363*** (0.020)
Public housing	-0.493*** (0.015)	-0.327*** (0.021)	-0.528*** (0.015)	-0.274*** (0.020)
<i>Household Position/Ref: Father</i>				
Mother	-0.211*** (0.024)	-0.193*** (0.033)	-0.203*** (0.023)	-0.233*** (0.033)
Child	-0.038 (0.027)	0.071† (0.037)	-0.054* (0.026)	0.092* (0.037)
Other	-0.050* (0.023)	0.069* (0.033)	-0.059** (0.023)	0.101** (0.033)
<i>City size/Ref: <100,000</i>				
>100,000	0.124*** (0.015)	0.167*** (0.026)	0.149*** (0.015)	0.048* (0.021)
Paris region	1.135*** (0.028)	0.122*** (0.037)	0.827*** (0.025)	1.001*** (0.040)
IRIS share of immigrants	-0.158† (0.093)	2.734*** (0.105)		
IRIS unemployment rate			-0.291*** (0.079)	1.825*** (0.091)
<i>Period/Ref: 1990-1999</i>				
1999-2008 (2004)	0.066** (0.024)	0.015 (0.036)	0.258*** (0.024)	-0.642*** (0.038)
1999-2008 (2005)	-0.093*** (0.023)	-0.149*** (0.034)	0.113*** (0.022)	-0.856*** (0.038)
1999-2008 (2006)	-0.213*** (0.022)	-0.303*** (0.034)	-0.015 (0.021)	-1.010*** (0.037)
1999-2008 (2007)	-0.324*** (0.021)	-0.462*** (0.034)	-0.117*** (0.021)	-1.214*** (0.038)
1999-2008 (2008)	-0.516*** (0.021)	-0.700*** (0.034)	-0.302*** (0.020)	-1.529*** (0.040)
Department control	Yes		Yes	
Constant	3.645*** (0.070)	1.232*** (0.102)	3.100*** (0.071)	2.809*** (0.093)
Observations	262,284	262,284	262,284	262,284

Source: EDP 1990-2008 (INSEE). Base outcome is no move. Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

What can be said about differences between immigrant origin groups and the majority in upward and downward spatial mobility once other factors are taken into account?

Compared to the majority, most immigrant groups are significantly less likely to move into low concentration immigrant/unemployment neighborhoods. The coefficients tend to be stronger among Non-Europeans, suggesting that their upward mobility prospects are particularly restricted. Moves into high concentration immigrant/unemployment neighborhoods, on the other hand, are particularly frequent for non-Europeans. On this dimension, Europeans do not contrast much with the majority.

Hence, specific immigrant origin patterns in mobility outcomes hold net of other factors. Still, socioeconomic status, intermarriage, housing tenure and the characteristics of the original neighborhood emerged from these models as salient factors shaping upward and downward spatial trajectories. The final analyses sharpen the focus specifically on the individual and contextual determinants of upward spatial mobility among the immigrant population, and the ways that these factors may vary according to immigrant origin.

4.2.3 The Determinants of Immigrants' Upward Spatial Mobility

Spatial assimilation theory posits that broader processes of acculturation and social mobility will favor upward spatial mobility into neighborhoods where majority members live. Mobility processes are also central to the place stratification model, although here the emphasis is placed on the fact that upward mobility prospects will not be the same for all groups. Due to the role of housing market discrimination and residential preferences, minorities' locational choices may face greater constraints, resulting in a lack of residential mobility or a greater risk of moving to neighborhoods with high immigrant concentrations and high levels of disadvantage. If they confront such barriers, minorities may not benefit from the returns of socioeconomic status to residential location in the same way as other groups.

The aim of the following models is to focus on whether these key factors within spatial assimilation theory - immigrant generation, occupation, homeownership, intermarriage - matter to immigrants' upward spatial mobility. I investigate further whether similar patterns linked to these factors are found for all groups. To explore the upward spatial

Table 4.10 – *Coefficients of Interest from Models 3, 4 and 5 Predicting Upward Spatial Mobility (Specifications a and b)*

	Immigrant Share		Unemployment Rate		Co-ethnic Share	
	M3a	M3b	M4a	M4b	M5a	M5b
Generation						
<i>Ref: G1</i>						
G1.5	-0.053 (0.058)	0.003 (0.063)	-0.049 (0.053)	-0.023 (0.058)	-0.009 (0.053)	0.013 (0.058)
G2	0.002 (0.051)	0.057 (0.056)	0.022 (0.048)	0.040 (0.053)	0.046 (0.047)	0.064 (0.051)
Occupational Category						
<i>Ref: Blue Collar</i>						
Manager	0.235** (0.076)	0.176* (0.083)	0.123† (0.067)	0.104 (0.073)	0.082 (0.070)	0.073 (0.076)
Intermediary Professions	0.140* (0.059)	0.109† (0.066)	0.064 (0.054)	0.051 (0.059)	0.043 (0.054)	0.037 (0.060)
White Collar	0.160** (0.050)	0.138* (0.055)	0.063 (0.045)	0.044 (0.050)	0.092* (0.045)	0.087† (0.049)
Unemployed (never worked)	-0.404*** (0.115)	-0.448*** (0.125)	-0.441*** (0.109)	-0.472*** (0.119)	-0.387*** (0.104)	-0.411*** (0.112)
Marital status						
<i>Ref: French majority spouse</i>						
Immigrant spouse	-0.108* (0.044)	-0.153** (0.048)	-0.098* (0.040)	-0.123** (0.044)	-0.060 (0.040)	-0.085† (0.044)
Housing Tenure						
<i>Ref: Renter</i>						
Homeowner	-1.053*** (0.037)	-0.958*** (0.043)	-0.978*** (0.034)	-0.915*** (0.039)	-1.046*** (0.034)	-0.973*** (0.039)
Public housing	-0.425*** (0.039)	-0.459*** (0.044)	-0.484*** (0.036)	-0.550*** (0.041)	-0.403*** (0.035)	-0.470*** (0.039)
Original IRIS Characteristics						
Immigrant share	-1.008*** (0.206)	-0.567* (0.252)				
Unemployment rate			-0.393* (0.186)	-0.360 (0.223)		
Share of co-ethnics					-5.739*** (0.484)	-5.420*** (0.539)
Standard controls						
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Individual fixed effects	No	Yes	No	Yes	No	Yes
<i>N (i*t)</i>	No	No	No	No	No	No
	33,344	28,128	35,095	29,954	34,499	30,002

Source: EDP 1990-2008 (INSEE). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$. Standard errors in parentheses.

mobility of immigrants, I run a series of logistic regression models on the immigrant sample only. These models predict the odds of moving to a low concentration neighborhood between t and $t+1$ rather than not moving. Three models are used to predict mobility according to three *IRIS* characteristics: Model 3 uses the *IRIS* immigrant share, Model 4 uses the *IRIS* unemployment rate, and Model 5 uses the *IRIS* co-ethnic share. Furthermore, two different specifications are applied for robustness. Specification *a* is the basic model including the standard battery of individual and contextual controls. The *b* specifications control for municipality fixed effects. Full model results are included in Appendix D.

Table 4.10 tracks the coefficients of interest across models for the first two specifications. The first finding of note is that immigrant generation has no significant effect on immigrants' mobility into neighborhoods with lower shares of immigrants, the unemployed or co-ethnics. The coefficients are consistently insignificant.

While upward spatial mobility does not appear to be more common among successive immigrant generations, as spatial assimilation would suggest, evidence of intermarriage - another key variable to the theory - is observed across models. Compared to immigrants

who are married to a French person, immigrants who are married to other immigrants prior to moving have lower chances of experiencing a move to a low concentration neighborhood. This pattern is found for all neighborhood indicators.

Support is also found for mechanisms linked to immigrants' socioeconomic status, at least when it comes to moving into low concentration *immigrant* neighborhoods. Compared to blue collar workers, the upper occupational categories (managers, intermediary professions, and white collar workers) are significantly more likely to experience mobility into neighborhoods with lower shares of immigrants. However, these groups do not show many differences with blue collar workers as concerns upward spatial mobility into neighborhoods with low unemployment rates or low shares of co-ethnics. The only exception is in the case of white collar workers, who appear to have somewhat greater mobility chances into low concentration co-ethnic areas. On the other hand, people who have never been employed have significantly lower odds of upward spatial mobility, no matter the indicator.

Finally, in all models, original housing and neighborhood characteristics are associated with reduced upward spatial mobility. In models with or without municipality fixed effects, homeowners and public housing residents have decreased odds of upward spatial mobility compared to renters. Immigrants who originate in neighborhoods with high shares of immigrants and co-ethnics are also less likely to experience a move to a low concentration neighborhood. A similar trend is found among residents of local areas with high unemployment, though this pattern disappears in the model controlling for municipality fixed effects. In other words, moving out of areas with high unemployment may be more difficult to achieve in certain cities, while mobility out of immigrant/co-ethnic neighborhoods appears to be restricted no matter the broader urban areas in which immigrants live.

Do Mobility Mechanisms Vary Across Immigrant Origins?

Findings from Chapter 3 helped establish that even while spatial assimilation mechanisms are at work, these factors may not be of the same intensity for all groups. I test whether factors of upward spatial mobility vary by immigrant origin by introducing an interac-

Table 4.11 – Interaction Terms Between Immigrant Origin and Covariates of Interest from Models 3, 4 and 5 Predicting Upward Spatial Mobility (Specification a)

	Immigrant Share M3a	Unemployment Rate M4a	Co-ethnic Share M5a
Generation			
<i>Ref: G1</i>			
Europe#G1.5	-0.037 (0.078)	-0.011 (0.073)	0.012 (0.072)
Europe#G2	0.034 (0.056)	0.074 (0.054)	0.104* (0.051)
Africa#G1.5	-0.021 (0.092)	-0.048 (0.085)	-0.029 (0.080)
Africa#G2	0.034 (0.087)	-0.009 (0.079)	-0.043 (0.076)
Asia/Turkey#G1.5	0.153 (0.184)	0.162 (0.153)	0.096 (0.150)
Asia/Turkey#G2	-0.142 (0.237)	-0.364† (0.210)	-0.148 (0.194)
Occupational Category			
<i>Ref: Blue Collar</i>			
Europe#Managers	0.170† (0.092)	0.127 (0.082)	0.123 (0.082)
Europe#Intermediary professions	0.152* (0.070)	0.076 (0.066)	0.084 (0.064)
Europe#White collar	0.157** (0.058)	0.078 (0.055)	0.110* (0.054)
Europe#Unemployed (never worked)	-0.516* (0.231)	-0.362 (0.221)	-0.187 (0.206)
Africa#Managers	0.252† (0.145)	0.167 (0.125)	0.104 (0.121)
Africa#Intermediary professions	0.086 (0.116)	0.012 (0.102)	-0.013 (0.099)
Africa#White collar	0.131 (0.095)	0.027 (0.085)	0.042 (0.081)
Africa#Unemployed (never worked)	-0.491** (0.150)	-0.597*** (0.145)	-0.531*** (0.133)
Asia/Turkey#Managers	0.417 (0.304)	0.030 (0.241)	-0.065 (0.241)
Asia/Turkey#Intermediary professions	0.480† (0.263)	0.217 (0.206)	0.137 (0.210)
Asia/Turkey#White collar	0.411† (0.214)	0.167 (0.172)	0.159 (0.170)
Asia/Turkey#Unemployed (never worked)	-0.186 (0.359)	-0.367 (0.327)	-0.368 (0.306)
Marital status			
<i>Ref: French majority spouse</i>			
Europe#Immigrant spouse	-0.058 (0.055)	-0.036 (0.052)	-0.035 (0.051)
Africa#Immigrant spouse	-0.183* (0.081)	-0.196** (0.073)	-0.144* (0.068)
Asia/Turkey#Immigrant spouse	-0.080 (0.196)	-0.100 (0.161)	-0.107 (0.156)
Housing Tenure			
<i>Ref: Renter</i>			
Europe#Owner	-1.061*** (0.045)	-0.980*** (0.042)	-1.075*** (0.041)
Europe#Public housing	-0.326*** (0.053)	-0.330*** (0.050)	-0.265*** (0.048)
Africa#Owner	-0.893*** (0.076)	-0.869*** (0.068)	-0.900*** (0.064)
Africa#Public housing	-0.507*** (0.065)	-0.615*** (0.059)	-0.546*** (0.055)
Asia/Turkey#Owner	-1.144*** (0.178)	-0.912*** (0.136)	-1.087*** (0.133)
Asia/Turkey#Public housing	-0.298† (0.153)	-0.454*** (0.128)	-0.388** (0.119)
Original IRIS Characteristics			
Europe#Immigrant share	-0.331 (0.285)		
Africa#Immigrant share	-1.705*** (0.327)		
Asia/Turkey#Immigrant share	-1.126† (0.623)		
Europe#Unemployment rate		-0.075 (0.263)	
Africa#Unemployment rate		-0.671* (0.275)	
Asia/Turkey#Unemployment rate		0.501 (0.580)	
Europe#Co-ethnic share			-7.346*** (0.770)
Africa#Co-ethnic share			-4.833*** (0.743)
Asia/Turkey#Co-ethnic share			-3.486*** (1.005)
<hr/>			
Standard controls	Yes	Yes	Yes
Municipality fixed effects	No	No	No
Individual fixed effects	No	No	No
N (i*t)	33,344	35,095	34,499

Source: EDP 1990-2008 (INSEE). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$. Standard errors in parentheses.

tion term into the standard model (a) between immigrant origin and these covariates of interest. For greater concision, the immigrant origin variable has been recoded into four groups: Europeans (including Other EU, Spain, Portugal, Italy), Africa (including Algeria, Morocco, Tunisia, Sub-Saharan Africa) Asia/Turkey and Other. Table 4.11 reports the interaction terms resulting from the basic specification.

As previously observed, immigrant generation plays a relatively weak role in mobility into low concentration neighborhoods. Only two exceptions are found. Second generation Asians and Turks are more likely than first generations (G1) of the same origin to move into low concentration unemployment areas. Similarly, European second generations have greater chances of entering areas with lower shares of co-ethnics. No significant effects of generation are found for Africans.

On the other hand, the patterns linked to intermarriage seem to primarily impact Africans more than any other group. Africans who are married to immigrants are significantly less likely to experience upward spatial mobility into areas with lower shares of immigrants, the unemployed or co-ethnics. No differences on this dimension are observed for other groups.

The class-based mechanisms of upward spatial mobility also vary by origin. Unemployment does not correspond to reduced upward spatial mobility for all groups. In particular, Africans who have never worked are less likely to move into low concentration areas. On the other hand, upper class Europeans and Asians/Turks have greater chances of upward spatial mobility into low concentration immigrant neighborhoods. No differences across occupational categories are found for Africans. While these effects may suffer from endogeneity, they suggest that returns to socioeconomic status vary across groups, resulting in particular forms of mobility for upper class Europeans, Asians and Turks, and particular forms of (im)mobility for disadvantaged Africans.

Finally, while homeowners and public housing residents of all origins have lower chances of moving, the stronger coefficients for Africans suggest that their out-mobility from public housing is particularly hindered. Furthermore, Africans who live in neighborhoods with high immigrant concentrations and high unemployment are less likely to experience upward spatial mobility. Asians and Turks also have lower chances of moving

out of immigrant areas. However, for Europeans, no significant differences are found between people living in areas with high or low shares of immigrants or the unemployed. Still, immigrants of all origins have lower chances of moving out of neighborhoods concentrating co-ethnics.

Selection Effects Linked to Mobility Mechanisms

Ascribing causality to the observed links between upward spatial mobility and socioeconomic status, intermarriage, and neighborhood and housing characteristics is problematic, particularly due to unobserved variable bias.

The greater upward spatial mobility seen among immigrants who have a French spouse, for instance, may not be due to a specific advantage of having a native partner, but rather to differences between immigrants who do and do not marry immigrants on other characteristics. Immigrants who marry French natives might have more success on the job market, have wider social networks, greater cultural capital, or may come from families with higher socioeconomic status, all of which in turn impact neighborhood outcomes. They may also have grown up in less segregated or disadvantaged areas. Similarly, individuals may not experience upward spatial mobility specifically because of occupation, but rather because higher occupational groups also benefit from these same types of resources. Both immigrants with higher occupational status and a French native spouse might also simply be perceived as more “assimilated”, or have residential preferences for certain neighborhoods, which in turn facilitates their upward spatial mobility prospects.

Using individual fixed effects models can partially help account for the effects of unobserved or unobservable variables that remain stable over time, such as socioeconomic background, cultural capital or residential preferences. I run a last specification on the general logistic regression models predicting upward spatial mobility, this time introducing individual fixed effects. As individual fixed effects models only predict time-varying factors, time-stable characteristics (such as immigrant origin and generation) are not included in these models.⁷ The coefficients linked to the covariates can be interpreted as the impact of a change in x on a change in y over time, controlling for the unobserved/unobservable

⁷For more information on fixed effects models, see Chapter 2. All variables are measured in $t+1$.

Table 4.12 – *Covariates of Interest from Models 3, 4 and 5 Predicting Upward Spatial Mobility (Specification c)*

	Immigrant Share	Unemployment Rate	Co-ethnic Share
Occupational Category			
<i>Ref: Blue Collar</i>			
Managers	0.152 (0.132)	0.140 (0.114)	0.089 (0.107)
Intermediary professions	0.110 (0.096)	0.138 (0.086)	0.093 (0.081)
White collar	0.029 (0.085)	0.058 (0.077)	0.022 (0.071)
Unemployed	-0.301 (0.217)	-0.223 (0.210)	-0.127 (0.181)
Marital status			
<i>Ref: Married to French</i>			
Married to immigrant	-0.128 (0.085)	-0.165* (0.074)	-0.160* (0.069)
Housing Tenure			
<i>Ref: Renter</i>			
Homeowner	0.164* (0.070)	0.281*** (0.063)	0.205*** (0.059)
Public housing	-0.548*** (0.079)	-0.621*** (0.071)	-0.290*** (0.063)
<i>Standard controls</i>	Yes	Yes	Yes
<i>Municipality fixed effects</i>	No	No	No
<i>Individual fixed effects</i>	Yes	Yes	Yes
<i>Observations</i>	19,724	24,069	26,223
<i>Number of id</i>	8,401	10,222	11,128

Source: EDP 2008 (INSEE). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$. Standard errors in parentheses.

characteristics of individuals that do not change over time. Full model results can be found in Table 6.13 in Appendix D.

Table 4.12 presents the coefficients of interest from these models. The first finding of note is that, unlike previous models, the variables related to occupational category are largely insignificant. However, further evidence is found here for an immigrant spouse “effect”. Immigrants who get married to another immigrant over the period are significantly less likely to move into neighborhoods with lower unemployment and lower shares of co-ethnics.

The patterns relating to housing tenure, on the other hand, change with respect to the previous specifications. A significant, negative effect of public housing is still found across models: immigrants’ are less likely to experience upward spatial mobility into low concentration neighborhoods when they enter public housing. Yet, a positive effect of homeownership is now observed. In other words, immigrants’ chances for upward spatial mobility appear to increase when they access homeownership.

Thus, other unobserved factors may have previously been confounded with the effects of socioeconomic status, which explains the loss of significance for these variables in these models. On the other hand, the negative effects found for marrying an immigrant and living in public housing, and the positive effects of homeownership, hold even once unobservables are accounted for.

* * *

All in all, specific patterns of immigrants' residential mobility linked to origin again appear to mix with some evidence of spatial assimilation dynamics. The evidence points to immigrant origin as a salient factor in mobility outcomes, especially for Non-Europeans. Context - notably the neighborhoods in which one lives in prior to moving - also shapes the likelihood of moving in different ways for immigrants and the majority, and point to reproduction in neighborhoods over time. Beyond patterns linked to origin and place, spatial assimilation factors such as socioeconomic status, intermarriage and access to homeownership also play a role in upward spatial mobility. The fixed effects models show that the intermarriage and homeownership effects hold even when controlling for unobservables that might select these groups into certain neighborhoods.

4.3 Patterns and Determinants of Housing Transitions

Previous findings from Chapter 3, as well as research on the French public housing sector (Simon et al., 2001; Verdugo, 2011), document that non-Europeans are over-represented on the public housing market and have low homeownership rates. Spatial assimilation research posits that, like upward spatial mobility, immigrants' homeownership is also a result of social mobility and acculturation processes. The place stratification perspective again emphasizes that minorities' ability to access homeownership is limited by discrimination, or by preferences for neighborhoods where such opportunities are limited or costly. Drawing on a similar analytical perspective to that used in the study of residential mobility, this section aims to describe immigrants' transitions in housing. Do certain immigrant origins remain in public housing while others access homeownership? What are the specific individual and contextual factors that contribute to immigrants' homeownership, and how do these vary across immigrant origin groups?

4.3.1 Who Moves into Homeownership?

Table 4.13 illustrates immigrants' housing tenure at the most recent date ($t+1$) according to the types of housing they occupied at the previous date (t).⁸ Converging with findings from TeO documented in Chapter 3, the majority and Europeans are distinguished by high rates of homeownership, at over than 55%. The majority and Europeans also quite rarely live in public housing (<22%). Yet, once again, the evidence points to the strong housing disadvantage of North Africans, Sub-Saharan Africans and Turks. Less than 40% are homeowners, while between about 40 and 50% occupy public housing. Asians, on the other hand, exhibit access to housing which more closely resembles that of Europeans and the majority. At 27%, Asians live in the public housing sector more frequently than the latter groups, yet nearly 60% are also homeowners.

The dynamic nature of the table also reveals differences in housing trajectories over time. Two contrasting types of transitions emerge from the table: the first shows high access to homeownership and a relatively low propensity to remain in public housing over the period. The second trajectory follows an opposite pattern, and concerns individuals who are less likely to become homeowners and more likely to stay public housing residents.

The first type of transition, high access to homeownership and low stability in low public housing, is frequent among the majority, Europeans, Asians but also Moroccans and Turks. Access to homeownership is actually highest among Asians, at 71%, a substantial proportion of which come from public housing (27%). Turks also show a quite strong trajectory into homeownership, at 60%, again with a high share (29%) coming from the public housing sector. Portuguese (61%), Italian (58%), Spanish (55%), but also Moroccan (50%) immigrants also frequently become homeowners over the period. This trend towards homeownership means that these groups are less likely to stay in the public housing sector over time. Between 60 and 68% who originate in public housing stay in the sector at a later date.

The trajectories of Algerians, Tunisians and Sub-Saharan Africans diverge considerably from these patterns. Their transitions in housing match the second type: an apparently greater barrier to homeownership and a higher degree of immobility within

⁸See Table 6.10 in Appendix D for the frequency table.

Table 4.13 – *Transitions in Housing Tenure Between t and $t+1$*

Origin Tenure t	Destination Tenure $t+1$		
	Homeowner	Renter	Public housing
<i>Majority</i>			
Homeowner	93	5	2
Renter	36	51	12
Public housing	21	14	65
Total	66	19	15
<i>Other EU</i>			
Homeowner	92	6	2
Renter	29	58	13
Public housing	18	16	67
Total	61	23	16
<i>Spain</i>			
Homeowner	93	6	2
Renter	33	53	14
Public housing	22	14	65
Total	62	20	18
<i>Portugal</i>			
Homeowner	91	7	2
Renter	35	52	13
Public housing	26	12	62
Total	55	23	22
<i>Italy</i>			
Homeowner	94	5	1
Renter	36	51	13
Public housing	22	13	66
Total	69	17	14
<i>Algeria</i>			
Homeowner	86	8	7
Renter	23	45	32
Public housing	15	9	76
Total	33	19	48
<i>Morocco</i>			
Homeowner	85	8	7
Renter	30	44	26
Public housing	20	12	68
Total	40	22	38
<i>Tunisia</i>			
Homeowner	87	9	4
Renter	20	54	26
Public housing	14	11	75
Total	38	24	37
<i>Asia</i>			
Homeowner	90	6	3
Renter	44	39	17
Public housing	27	10	62
Total	58	15	27
<i>Turkey</i>			
Homeowner	83	9	8
Renter	31	36	33
Public housing	29	7	64
Total	40	16	44
<i>Sub-Saharan Africa</i>			
Homeowner	75	12	12
Renter	16	45	38
Public housing	13	14	72
Total	29	26	45

Source: EDP 1990-2008 (INSEE). The table shows row percentages.

the public housing sector. Only 29% of Sub-Saharan Africans renting or living in public housing become homeowners. Tunisians and Algerians are also less likely to become homeowners over time period, at 34% and 38% respectively. These three groups are also at the greatest risk of remaining in public housing over time. 76% of Algerians who originate in public housing remain there later on; this is also the case for 75% of Tunisians and 72% of Sub-Saharan Africans.

Hence, just as we observed in the patterns of neighborhood mobility, original housing tenure appears to shape housing tenure later on. For all groups, it appears easier to access homeownership from the private rental market than from the public housing sector. Yet, the particularly reduced chances of North Africans and Sub-Saharan Africans of leaving the public housing sector results in a specific disadvantage for these groups.

I conduct a logistic regression model (Model 6) on the immigrant sample predicting homeownership in $t+1$ (coded 1 for homeownership and 0 for renting or living in public housing). Again, two specifications are used for robustness: specification *a* is the basic model with the usual battery of controls and specification *b* includes municipality fixed effects. In addition to immigrant origin, I focus on similar variables that are of key importance to the spatial assimilation framework, such as immigrant generation, marital status, and occupational category. Following the hypotheses that original location and original housing tenure shape housing outcomes later in life, I also pay attention to the role of housing tenure and *IRIS* characteristics. These variables are all measured in t .⁹ The model results are included in Table 4.14.

Table 4.14 – *Logistic Regression Model 6 Predicting Homeownership (Specifications a and b)*

	M6a	M6b
<i>Ref: Italy</i>		
Other EU	-0.257*** (0.056)	-0.291*** (0.064)
Spain	-0.112† (0.063)	-0.141* (0.070)
Portugal	-0.039	-0.066

⁹The models also control for gender, age, age-squared, education, number of children, household position, period of observation, a proxy for length of stay, the share of public housing and homeowners in the municipality, and department of residence. Department of residence and the municipality characteristics are not included in specification b controlling municipality fixed effects.

	(0.065)	(0.073)
Algeria	-0.570***	-0.650***
	(0.060)	(0.067)
Morocco	-0.328***	-0.394***
	(0.085)	(0.093)
Tunisia	-0.597***	-0.676***
	(0.079)	(0.086)
Asia	0.252**	0.210*
	(0.094)	(0.102)
Turkey	0.062	0.114
	(0.096)	(0.106)
Sub-Saharan Africa	-1.100***	-1.153***
	(0.099)	(0.107)
<i>Generation/Ref: G1</i>		
G1.5	0.104	0.139†
	(0.071)	(0.077)
G2	0.013	0.050
	(0.052)	(0.057)
<i>Length of stay proxy/Ref: <1968</i>		
1968-1975	-0.076	-0.104*
	(0.047)	(0.052)
1975-1982	-0.191**	-0.229***
	(0.060)	(0.065)
1982-1990	-0.295***	-0.326***
	(0.064)	(0.070)
1990-1999	-0.045	-0.089
	(0.081)	(0.089)
Men	-0.111	-0.135
	(0.082)	(0.089)
Age	-0.000	0.007
	(0.007)	(0.008)
Age-squared	-0.000	-0.000*
	(0.000)	(0.000)
<i>Variables measured in t</i>		
<i>Education/Ref: No degree</i>		
Professional certificate	0.211***	0.245***
	(0.045)	(0.050)
Bac	0.385***	0.382***
	(0.061)	(0.066)
University	0.649***	0.671***
	(0.063)	(0.069)
<i>Occupation/Ref: Blue collar</i>		
Other	0.346***	0.340***
	(0.076)	(0.083)
Managers	0.511***	0.539***
	(0.085)	(0.091)
Intermediary professions	0.382***	0.397***
	(0.065)	(0.071)
White collar	0.022	0.011
	(0.052)	(0.057)
Unemployed (never worked)	-0.365*	-0.357*
	(0.162)	(0.175)
Students	-0.140	-0.156
	(0.135)	(0.143)
Inactive	-0.240***	-0.254***
	(0.055)	(0.061)
Unemployed	-0.408***	-0.431***
	(0.064)	(0.069)
<i>Marital status/Ref: Married to French</i>		
Single	-0.340***	-0.360***
	(0.055)	(0.060)

Married to immigrant	0.038 (0.043)	0.046 (0.047)
Divorced	-0.073 (0.087)	-0.021 (0.096)
Widowed	-0.381*** (0.078)	-0.434*** (0.086)
Number of children	-0.011 (0.015)	-0.010 (0.016)
<i>Household Position/Ref: Father</i>		
Mother	-0.113 (0.088)	-0.120 (0.095)
Other	-0.374*** (0.073)	-0.422*** (0.079)
<i>Housing Tenure/Ref: Renters</i>		
Homeowner	3.049*** (0.043)	3.166*** (0.048)
Public housing	-0.503*** (0.041)	-0.553*** (0.045)
IRIS immigrant share	-0.489† (0.272)	-0.707* (0.319)
IRIS unemployment rate	-0.260 (0.232)	-0.297 (0.268)
IRIS co-ethnic share	0.313 (0.542)	0.316 (0.593)
Commune share of public housing	0.305† (0.182)	
Commune share of homeowners	1.046*** (0.162)	
Ref: <100,000 >100,000	-0.098† (0.053)	
Paris region	-0.134 (0.146)	
<i>Period/Ref: 1990-1999</i>		
1999-2008 (2004)	-0.019 (0.065)	0.043 (0.074)
1999-2008 (2005)	-0.007 (0.063)	0.051 (0.072)
1999-2008 (2006)	0.195** (0.063)	0.292*** (0.071)
1999-2008 (2007)	0.062 (0.065)	0.209** (0.072)
1999-2008 (2008)	0.190** (0.065)	0.299*** (0.072)
Department control	Yes	No
Municipality fixed effects	No	Yes
Constant	-0.425† (0.253)	-0.383 (0.269)
Observations	31,223	28,495

Source: EDP 2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

What role do spatial assimilation variables play in access to homeownership? Unlike the findings relating to upward spatial mobility, immigrants who marry other immigrants do not appear to have lower chances of being a homeowner than those who marry a French majority member. No significant differences are found between the two groups in either

model specification.

As can be expected within spatial assimilation theory, socioeconomic status is an important vehicle of immigrants' homeownership. Immigrants who are managers or who belong to the intermediary professions have greater odds of being homeowners than blue collar workers. Likewise, immigrants with higher education are more likely to own their homes.

Yet, in addition to these factors, the neighborhoods and housing in which immigrants lived at a prior date matter to homeownership later on. Immigrants who started in public housing are less likely to become homeowners than those who lived in the private rental market. Furthermore, immigrants who live in neighborhoods with high shares of immigrants are less likely to transition to homeownership at the next date.

Finally, immigrant origin still comes to the forefront as a decisive dimension of homeownership. In both specifications, North Africans and Sub-Saharan Africans are less likely to be homeowners than Italians. Immigrants from other European countries and from Spain also have lower odds of this outcome, although the weaker coefficient found for this group reveals a weaker disadvantage than that experienced by Africans. Asians, on the other hand, still show a stronger likelihood compared to Italians of owning their homes, net of other factors, while Turks show no differences with Italians.

Variations in Mechanisms Across Immigrant Origins

Findings from Chapter 3 suggested that the determinants of homeownership may vary across immigrant origin groups. I test this hypothesis here by running an identical model to the above, this time introducing an interaction between immigrant origin and the covariates of interest (specification a). For greater concision, I regroup the immigrant origin variable into 4 categories, distinguishing Europeans, Africans, Asians/Turks and Others. Findings for the interaction terms of interest are posted in Table 4.15.

In this model, interesting results emerge as to the origin of the spouse. Europeans who marry other immigrants are more likely to be homeowners. Though insignificant for other groups, the effect tends to be positive for Asians and Turks, but negative for Africans. Variations in the effects of socioeconomic status are also found across groups. Being a

Table 4.15 – *Interaction Terms From Model 6 Predicting Homeownership (Specification a)*

	Homeownership
Occupational Category	
<i>Ref: Blue Collar</i>	
Europe#Managers	0.441*** (0.101)
Europe#Intermediary professions	0.340*** (0.078)
Europe#White collar	0.010 (0.062)
Europe#Unemployed	-0.469 (0.356)
Africa#Managers	0.583*** (0.142)
Africa#Intermediary professions	0.381*** (0.114)
Africa#White collar	-0.076 (0.094)
Africa#Unemployed	-0.520* (0.213)
Asia/Turkey#Managers	0.684* (0.298)
Asia/Turkey#Intermediary professions	0.607* (0.237)
Asia/Turkey#White collar	0.366* (0.177)
Asia/Turkey#Unemployed	0.005 (0.346)
Marital status	
<i>Ref: Married to French</i>	
Europe#Married to immigrant	0.112* (0.055)
Africa#Married to immigrant	-0.107 (0.072)
Asia/Turkey#Married to immigrant	0.166 (0.163)
Housing Tenure	
<i>Ref: Renter</i>	
Europe#Homeowner	3.221*** (0.052)
Europe#Public housing	-0.525*** (0.053)
Africa#Homeowner	2.766*** (0.079)
Africa#Public housing	-0.500*** (0.069)
Asia/Turkey#Homeowner	2.411*** (0.156)
Asia/Turkey#Public housing	-0.493*** (0.123)
Original IRIS Characteristics	
Europe#Immigrant share	-0.567 (0.346)
Africa#Immigrant share	-1.241** (0.428)
Asia/Turkey#Immigrant share	1.313* (0.645)
Europe#Unemployment rate	-0.310 (0.301)
Africa#Unemployment rate	-0.205 (0.343)
Asia/Turkey#Unemployment rate	0.075 (0.597)
Europe#Co-ethnic share	1.314† (0.791)
Africa#Co-ethnic share	-0.687 (1.126)
Asia/Turkey#Co-ethnic share	-0.875 (1.086)
<i>Standard controls</i>	Yes
<i>Municipality fixed effects</i>	No
<i>Individual fixed effects</i>	No
<i>N i*t</i>	31,223

Source: EDP 2008 (INSEE). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$. Standard errors in parentheses.

manager or belonging to the intermediary professions category are consistently correlated with higher odds of homeownership for all groups. However, the negative impact of unemployment does not appear to make a difference for Europeans, Asians and Turks, while it is linked to a significant reduction in the odds of homeownership for Africans. Finally, while no differences are found in the effect of housing tenure in the previous date, the characteristics of the original neighborhood do not appear to impact all immigrants' access to homeownership in the same way. Originating in neighborhoods with high shares of immigrants significantly reduces the likelihood that Africans will be homeowners, but increases the chances of Asians and Turks. Interestingly, living in a co-ethnic neighborhood is linked to high homeownership odds among Europeans.

Selection Effects Linked to Homeownership Access

Selection effects linked to occupational status and intermarriage were discussed in the previous analyses on immigrants' residential mobility. Similar trends could also be impacting immigrants' transition to homeownership. To address this issue, I run a final specification on the logistic regression model predicting homeownership, this time including individual fixed effects (specification *c*).¹⁰ This model is included in Table 6.14 in Appendix D, and the coefficients of interest are displayed in Table 4.16.

As Table 4.16 shows, once again, the factors relating to occupational status do not hold in these models, making it difficult to conclude in favor of a specific effect of social mobility on moves into homeownership. Rather, other mechanisms related to occupation and homeownership access (wealth, for instance) may be at work. Still, the negative coefficient related to having an immigrant spouse compared to a French spouse is now found. Immigrants who marry other immigrants appear to have weakened prospects for becoming homeowners. Finally, some signs are also observed that suggest that homeownership is particularly hard to achieve in neighborhoods with high unemployment. Entering these types of neighborhoods are linked to reduced odds of becoming a homeowner.

¹⁰For more information on fixed effects models, see Chapter 2. All variables are measured in $t+1$.

Table 4.16 – *Coefficients of Interest from Model 6 Predicting Homeownership (Specification c)*

	Homeownership
Occupational Category	
<i>Ref: Blue Collar</i>	
Managers	0.169 (0.157)
Intermediary professions	0.167 (0.123)
White collar	0.174 (0.107)
Unemployed (never worked)	0.176 (0.360)
Marital status	
<i>Ref: Married to French</i>	
Married to immigrant	-0.293** (0.097)
IRIS Characteristics	
Share of immigrants	-0.151 (0.574)
Unemployment rate	-3.465*** (0.506)
Share of co-ethnics	1.251 (1.054)
<i>Standard controls</i>	Yes
<i>Municipality fixed effects</i>	No
<i>Individual fixed effects</i>	Yes
<i>Observations</i>	12,882
<i>Number of id</i>	5,432

Source: EDP 2008 (INSEE). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$. Standard errors in parentheses.

4.4 Discussion and Conclusion

This chapter used recent longitudinal data from France to provide a dynamic portrait of immigrants' spatial incorporation. Drawing on panel models, the analyses aimed to describe the residential mobility trajectories of immigrants and the majority, through two prisms: moving distance and upward spatial mobility. In addition to highlighting patterns by immigrant origin, I further identified some of the mechanisms of immigrants' upward spatial mobility. Using a similar analytical approach, the final section sought to explore transitions in housing tenure, with a particular focus on the determinants of immigrants' moves into homeownership.

The findings from this chapter are largely concordant with those using TeO data in Chapter 3. The salience of immigrant origin, mixed with some evidence of spatial assimilation mechanisms, emerges from both sets of results. But the findings from this chapter take us a step further in understanding immigrants' spatial incorporation by revealing how patterns of (im)mobility underpin and shape neighborhood and housing outcomes. The dynamic nature of the models used in this chapter helped further pinpoint with greater precision the mechanisms of spatial incorporation.

The Saliency of Immigrant Origin and Original Location

A consistent finding that emerged from these analyses is the decisiveness of immigrant origin in shaping residential mobility outcomes and housing trajectories. Disparities across origin groups shaped the likelihood of moving, the distance moved, as well as the types of neighborhoods to which movers had access. Furthermore, housing tenure transitions varied substantially on this dimension.

Non-Europeans, while relatively mobile, experience mobility that is confined within the same cities, the same neighborhoods and the same types of housing. Moves within the original municipality were common among these groups. While non-Europeans tend to originate in high concentration neighborhoods, when they move, they are also more likely to enter these types of neighborhoods than other groups. Opportunities for upward spatial mobility into low concentration neighborhoods are also unlikely. This is particularly true for North Africans, Sub-Saharan Africans and Turks. While Asians also tend to remain in immigrant neighborhoods over time, their mobility patterns do not appear to expose them as strongly to spatial disadvantage. Differences between Europeans and the majority in terms of neighborhood destinations, on the other hand, are rarely if ever significant.

These contrasting patterns according to immigrant origin appear to operate in such a way as to reinforce pre-existing spatial inequalities. As Africans are already over-represented in neighborhoods concentrating immigrants and the unemployed, the lack of residential mobility among these groups works to sustain disparities. When mobility does occur, inequalities in the likelihood of accessing neighborhoods with lower shares of immigrants/unemployed also result in the perpetuation of spatial stratification. Hence, patterns of both residential *mobility* and residential *immobility* reinforce one another and contribute to bolstering spatial inequalities that particularly impact North Africans, Sub-Saharan Africans and Turks.

One of the implications of reduced upward mobility prospects for these groups may be reduced socioeconomic opportunities. In France, long distance moves has been shown to be often associated with professional opportunities (Gobillon, 2001) or can be linked to accessing homeownership. The geographically restricted mobility patterns of non-

Europeans may be revealing that these groups have lower chances for these types of “moves to opportunity.” At the same time, confined out mobility from neighborhoods with high shares of immigrants and the unemployed may hinder job and housing prospects. The emerging neighborhood effects literature in France, for instance, shows that residence in segregated or deprived areas hinders transitions to employment among the unemployed and impacts educational achievement and job market performance (Gobillon et al., 2011; Rathelot, 2014; Dujardin and Goffette-Nagot, 2005; Aeberhardt et al., 2015). Hence, as the social stratification literature emphasizes, the reduced social mobility prospects of immigrants living in these neighborhoods may be a mechanism by which disparities in neighborhoods and housing are perpetuated.

This hypothesis is further supported by the evidence in this chapter pointing to the role of original location in shaping residential mobility in housing and neighborhoods. The most disadvantaged trajectories are not found for Africans and Turks in general, but for Africans and Turks who *originate* in neighborhoods concentrating immigrants or the unemployed. Not only is mobility hindered out of these types of areas, but movers have a greater risk of downward spatial mobility, and lower chances of upward spatial mobility, when they come from immigrant areas or deprived neighborhoods. These “effects” of original location on mobility processes vary in important ways across immigrant origin, and do not appear to confine the majority’s or Europeans’ trajectories as much as they shape those of other groups. Thus, place and origin appear to interact to produce specific forms of inequality which place Africans and Turks who come from deprived immigrant areas at a disadvantage.

In contrast to these patterns, the majority tends to move out of neighborhoods concentrating immigrants, while experiencing greater upward spatial mobility into low concentration neighborhoods. These findings mirror those of Rathelot and Safi (2014), who show some evidence of a “French native” flight in France using less recent data. While the patterns found for the majority are suggestive of white flight, evidence of which has also been shown to exist in other European countries (Van Ham and Clark, 2009; Bolt et al., 2008; Bråmån, 2006), this analysis cannot draw conclusions as to the motivation of this type of mobility. Avoidance of immigrant neighborhoods may be rooted in racism

and prejudice against Africans and Muslims evidenced in French society (Mayer et al., 2014), but it can also be a reaction to other characteristics of areas where immigrants live, such as the quality of schools, the general attractiveness of the area, or employment opportunities. Ethnographic research in France, for instance, shows that school strategies may be underpinning these avoidance patterns, as middle-class families with children seek to avoid immigrant areas where the quality of education is perceived to be lower (Van Zanten, 2001; Oberti, 2007). Yet, whether motivated by racial or non-racial processes, the trajectories of the mainstream out of immigrant neighborhoods, coupled with the tendency for immigrants to remain, act as a decisive mechanism of spatial inequalities.

Patterns in housing reflect trajectories in neighborhoods. Just as Africans remain in deprived immigrant areas over time, they are also less likely to leave the public housing sector. Indeed, originating in public housing appears to particularly impede the ability of these groups to access homeownership. Why might leaving the public housing sector be particularly hard to achieve for these groups? Given what we know about immigrants' concentration in public housing in the peripheries of large cities, the location of these groups on tight housing markets where homeownership opportunities are costly and few may incite minorities to remain in the sector. Furthermore, labor market disadvantage impacting first and second generation North Africans, Africans and Turks (Meurs et al., 2006; Safi, 2008) may also pose an indirect barrier to leaving the public housing sector by hindering wealth accumulation. While households living in public housing are logically able to increase savings due to paying low rents, the mainstream and less disadvantaged groups may be in a better financial position to save, thus facilitating their transition to homeownership. Indeed, research into the savings capacities of public housing residents shows that while the middle-upper classes live less frequently in public housing, when they do, the financial benefit or "implicit aid" due to savings in rent is higher for these groups (Trevien, 2014). These processes interact with housing market discrimination (HALDE, 2006; Simon et al., 2001), as well as residence-based discrimination (Bonnet et al., 2015) to tie minorities durably to certain housing markets within certain neighborhoods.

Once again, these analyses do not permit us to clearly ascertain the role of preferences and the role of discrimination behind the net effect of immigrant origin. Preferences for

public housing may be a roads to improved housing for some groups (Dietrich-Ragon, 2013), while the desire to live among members of the same origin group, due to family connections or social networks, may keep immigrants within the same neighborhoods. Yet, as place stratification highlights, mechanisms related to preferences are difficult to disentangle from exclusion and discrimination, as the experience of stigma and rejection may reinforce own-group preferences. Further research is needed to more specifically document the residential preferences of immigrants and majority members.

Spatial Assimilation Mechanisms in Mobility Patterns

Hypotheses about residential mobility are central to the spatial assimilation framework and are hinged on the idea that social mobility translates into similar residential positions to those of the majority. Socioeconomic mechanisms are thought to condition not only in the ability to move, but also the likelihood of experiencing upward spatial mobility.

The findings in this chapter similarly point to a relationship between class, residential mobility and homeownership. Immigrants with higher education and who belonged to upper occupation categories have greater chances of moving outside of the original city, of experiencing upward spatial mobility and of accessing homeownership. Following the links between acculturation, structural assimilation and spatial assimilation that are also at the core of spatial assimilation theory, the analyses also focused on the effect of intermarriage on residential mobility. Gordon (1964) highlights the importance of intermarriage for immigrants' structural assimilation, which he considers key to spatial assimilation. Some recent empirical literature documents a relationship between native partnership and upward spatial mobility (White and Sassler, 2000; South et al., 2005c). Most findings in this analysis revealed the importance of the origin of the spouse in mobility and housing outcomes. Being married to an immigrant rather than a French majority member is associated with reduced chances of moving out of the municipality among immigrants, increased chances of downward spatial mobility and decreased chances of upward spatial mobility. Individuals who marry other immigrants also have reduced chances of becoming a homeowner. On the other hand, little evidence was found for immigrant generation.

Furthermore, the effects of socioeconomic status were also shown to vary in meaningful

ways across immigrant origin groups. While upper class Europeans and Asians/Turks had greater chances of mobility into low concentration neighborhoods, such patterns were not documented for upper class Africans. Being unemployed, however, strongly reduced Africans prospects for upward spatial mobility. The lack of improved outcomes among upper-class Africans and the reduced spatial mobility of disadvantaged outcomes may be suggestive of a “strong” version of stratification, in which some minorities are not helped by class mobility due to discrimination or exclusion (Logan and Alba, 1993). On the other hand, the effect of intermarriage appear to be important for Africans in particular.

Nonetheless, unobserved factors linked to occupation and marriage to a French majority member, such as socioeconomic background, wealth, or cultural capital, also impact neighborhood and housing outcomes, and may be confounded in these effects. The findings from the individual fixed effects models, which helped partially address these selection issues, suggest that these mechanisms might be revealing other class-based factors, rather than specifically serving as an avenue to upward spatial mobility and homeownership. Moreover, the varying effects of these factors across origin groups may also be revealing selection mechanisms rather than true causal effects. Africans from wealthier backgrounds, or who grew up in less segregated neighborhoods, for instance, might be more likely to have a French partner, which in turn may shape the neighborhoods in which they end up. Still, the effects of homeownership on upward residential mobility and the immigrant spouse “effect” held in models controlling for unobservables.

* * *

All in all, these findings coincide with research from other contexts, in Europe (Bolt and Van Kempen, 2010; Van Ham and Clark, 2009) and in the U.S. (South and Crowder, 1998b; South et al., 2008), that immigrant origin or race/ethnicity shapes mobility processes in ways that contribute to maintaining spatial inequalities. Furthermore, these analyses shed light on a certain inertia in location for some groups over time. This insight is of particular importance to the social stratification and neighborhoods effects approach

to spatial inequalities. Building on these frameworks, the final chapter extends the hypothesis that individuals remain in similar neighborhoods and housing over long periods of time and even across generations by investigating patterns in residential outcomes between childhood and adulthood.

Chapter 5

The Intergenerational Reproduction of Neighborhoods and Housing

Introduction

A major insight from theories of inequality within social stratification research is that individual positions within social hierarchies are not necessarily achieved during the life course, but are in part inherited from the previous generation through the transmission of various forms of capital. In order to understand current inequalities in individual outcomes, sociologists must therefore look to the past to investigate how parents and their children might occupy similar positions of social advantage or disadvantage. Since early seminal studies of intergenerational social mobility from Blau and Duncan (1967) a large corpus of studies within social stratification has explored social mobility patterns in income, education and occupational status between parents and their children. Measuring the degree to which social mobility between generations is possible or likely further provides a wider view of the rigidity or flexibility of systems of social stratification.

This insight about the intergenerational dynamics of inequalities, however, has only recently migrated towards perspectives on spatial inequalities. The spatial outcomes of immigrants, as well as mobility patterns within and between segregated and disadvantaged neighborhoods, is now well-documented in the U.S. and increasingly in Europe. Yet these studies, grounded in traditional theories of spatial incorporation, are, from a theoretical point of view, relatively disconnected from social stratification theory and its concern for the perpetuation of spatial inequalities over time. Moreover, from a methodological point of view, most of these studies rely on data and methods which do not allow for intergenerational patterns to be assessed.

However, since the 1990s, research within the neighborhood effects literature has helped bridge the gap between theories of spatial incorporation and theories of social stratification. This strain of research investigates the implications of growing up, or living for long periods of time, in poor, segregated neighborhoods for a wide range of individual outcomes, such as education, employment, earnings, and even political engagement, health and mortality (Sharkey and Elwert, 2011; Sampson, 2012; Sharkey and Faber, 2014). By embedding individuals within specific environments, which shape opportunities and preferences, neighborhood location during childhood could in turn impact residential location

later in life. This new set of findings has led to emerging questions about just how durably individuals might be rooted in certain places, especially the most disadvantaged environments. Along with these questions, starting in the 1990s and gaining ground in the 2000s, segregation research also experienced a methodological switch: the increasing use of longitudinal data to explore mobility in neighborhoods over the life course. These studies opened up new empirical avenues for investigating temporal patterns in spatial outcomes, and have also pushed towards adopting an intergenerational perspective on these types of inequalities.

The first studies exploring the intergenerational reproduction of spatial inequalities come from Vartanian et al. (2007) and Sharkey (2008). Both of these authors use longitudinal data from the U.S. to examine the extent to which children who grow up in poor neighborhoods also live in poor neighborhoods as adults. They further question whether the intergenerational reproduction of neighborhood poverty is similar within African American and white families. More recently, the same type of study has been extended to the European context by Van Ham et al. (2014). These studies agree on the fact that childhood context exerts a significant effect on exposure to poor neighborhoods later in life, and Van Ham et al. (2014) and Sharkey (2008) find that this effect is stronger for racial/ethnic minorities.¹ Sharkey also shows that childhood context is a salient factor in accounting for racial disparities in exposure to neighborhood poverty, as about 60% of current inequality between blacks and whites can be accounted for by inequality that is transmitted from the previous generation. From this point of view, neighborhood location early in life can be seen as a mechanism that perpetuates ethnoracial disparities in spatial outcomes.

In this chapter, I adopt an intergenerational perspective on immigrants' outcomes in neighborhoods and housing, offering, to my knowledge, the first study of this kind in France. Using data from the *Echantillon démographique permanent*, in which individuals can be tracked from childhood to adulthood, the chapter has three broad aims. First, I assess the degree to which neighborhoods and housing tenure during childhood are correlated to residential outcomes during adulthood, or what I call the intergenerational

¹See Chapter 1 for a more complete literature review on the intergenerational transmission of context.

reproduction of residential attainment. I further identify some of the factors underlying these correlations. Second, I link these intergenerational trends with current immigrant origin inequalities in neighborhoods and housing. This part of the analysis seeks to ascertain whether all immigrant origins have the same chances of reproducing neighborhoods and housing. Third, I evaluate the durability of these correlations over time, drawing on a restricted sample of individuals who are observed multiple times during adulthood.

These analyses are embedded in hypotheses from neighborhood effects and social stratification perspectives about the intergenerational transmission of spatial inequalities. The first set of hypotheses concern the correlation between child and adult neighborhood and housing characteristics, and the mechanisms behind it, or why residential situations during childhood might be a potent predictor of those during adulthood.

First, I begin with the assumption that disadvantaged and advantaged positions in space are inherited from the previous generations, such that child residential attainment will exert a significant effect on adult residential attainment. I further hypothesize about why this might be. One explanation is that the characteristics of individuals and their parents explain why child neighborhoods and housing matter later in life. As socioeconomic and demographic mechanisms sort individuals into certain neighborhoods, controlling for these factors should strongly attenuate the effect related to childhood residential attainment. The broader urban environments in which children grow up may also explain why residential characteristics are transmitted, as people may get “stuck” in areas with difficult job and housing markets that provide reduced possibilities for social and residential mobility. Finally, I predict that there is an inertia to residential positions that is not explained by individual or contextual factors, such that the effect of childhood residential attainment will persist net of these controls.

The second set of hypotheses concerns the link between childhood residential attainment and current disparities between immigrant origin groups. Building on the assumption that disadvantaged neighborhoods offer reduced possibilities for social and residential mobility which impacts everyone living there, we could expect all immigrant origin groups and the majority to reproduce their situation during childhood at equal rates. If, on the other hand, ethnoracial stratification in neighborhoods and housing interacts with the

context in which one grew up, we could expect variations in the intensity of this correlation across immigrant origin groups. Furthermore, if reproduction is stronger among some groups, child neighborhood and housing characteristics may be a powerful factor for accounting for immigrant origin inequalities during adulthood.

Finally, I predict that childhood residential attainment should have a stronger effect early in adulthood, but will weaken significantly over time.

5.1 The Data

Data come from INSEE's *Echantillon démographique permanent* (EDP) collected in 1990, 1999 and 2008. EDP is a rich source for studying intergenerational dynamics on a number of outcomes. When EDP individuals enter the panel at birth, they may be observed for one or several years as children. EDP includes an indicator of the position of the individual within the household (i.e.: father, mother, child, or other). For the years during which individuals are observed as children in a household, a number of sociodemographic variables are provided describing the individuals parents (such as occupational status, education age, number of children, marital status, housing tenure, etc). Information describing EDP individuals' parents is, however, only available when the individual is observed as a child. Thus, in order to conduct an intergenerational analysis, individuals must be observed at least once in the panel as children. The individuals must also be observed at a later date as an "adult" in the household (i.e.: father, mother, other) in order to compare their situations during childhood (that of their parents) and adulthood.

5.1.1 The Sample

The sample used in this analysis is restricted to individuals who are living in municipalities (*communes*) of 10,000 inhabitants in metropolitan France, for whom *IRIS* characteristics are available and for whom an immigrant origin can be identified. I further include in the sample only individuals who are observed at least once as a child in the household and experience a transition to adulthood. A *child* is defined as an EDP individual whose position within the household is a child, while an *adult* is defined as an EDP individual

Table 5.1 – *Presence in the Panel of EDP Individuals Observed as Children in t*

<i>Observations</i>	<i>Year (t)</i>	<i>Status in $t+1$</i>	<i>Status in $t+2$</i>	<i>Selection Type</i>	<i>Freq.</i>	<i>%</i>
1	1990 or 1999	Not observed	Not observed	Attrition	36,194	18
1	2008	Not observed	Not observed	Censoring	60,610	30
2	1990 or 1999	Adult	Not observed	Transition	14,732	7
2	1990 or 1999	Child	Not observed	Attrition	50,743	25
3	1990	Adult	Adult	Transition	10,704	5
3	1990	Child	Adult	Transition	9,419	5
3	1990	Child	Child	Censoring	11,185	6
Total					201,171	

Source: EDP 1990-2008 (INSEE). The percentages in the table do not add up to 100% due to other possible transitions that are not shown: transitioning from childhood to adulthood between two non-consecutive dates, or experiencing a reverse transition from adulthood to childhood. These represent 7,584 (2%) of the total number of individuals observed at least once as a child.

whose position within the household is a father, mother or other. A *transition to adulthood* therefore refers to individuals who are observed as a child in t and as an adult at the next consecutive date, in $t+1$. No age restriction is implemented in the definition of this transition in order to avoid selection into the sample based on the age at which individuals leave the parental home.

After restricting on the basis of city size, *IRIS* characteristics and immigrant origin, EDP includes 201,171 individuals who are observed at least once as a child between 1990 and 2008. Table 5.1 displays the presence of these individuals in the panel over time and whether or not they experience a transition to adulthood (indicated in bold). Out of this total, 34,855 individuals (17%) transition from childhood to adulthood between two consecutive dates: 14,732 are observed twice, as a child in t and as an adult in $t+1$. 10,704 are observed three times, once as a child in t and twice as an adult in $t+1$ and $t+2$. Finally, 9,419 individuals are observed three times, twice consecutively as children and then as an adult in $t+2$. These 34,855 individuals form the sample for the analysis in Sections 5.2 and 5.3

The final section in this chapter, Section 5.4, restricts the analysis only to those individuals who transition to adulthood and are observed at two consecutive dates as an adult. The fifth row of Table 5.1 indicates this sample (N=10,370). These individuals are observed a total of three times, from 1990 to 2008. The aim of this restriction is to draw on the full range of information available during adulthood (1999, 2008) in order to better assess the durability of the correlation between childhood and adulthood residential characteristics over an extended period of time.

Table 5.2 – *Samples by Immigrant Origin*

	Main Sample		Restricted Sample	
	Freq.	%	Freq.	%
Majority	28,235	81	8,779	85
Europeans	3,050	9	877	8
Africans	2,734	8	535	5
Asians and Turks	485	1	118	1
Others	351	1	61	1
Total	34,855	100	10,370	100

Source: EDP 1990-2008 (INSEE).

Table 5.2 displays individuals transitioning to adulthood by immigrant origin for both samples. I use aggregate categories in this chapter due to smaller subsample sizes of immigrant groups induced by restriction to individuals transitioning to adulthood, especially among the restricted sample. The European category includes individuals originating from Spain, Italy and Portugal, while Africa groups together Algeria, Morocco, Tunisia and Sub-Saharan Africa. In the main sample, 81% are the French majority. The largest immigrant origin groups are from Europe (9%) and Africans (8%).

5.1.2 Attrition and Censoring

A considerable portion of the sample is excluded from the sample due to attrition or censoring. As discussed in Chapter 4, attrition refers to the loss of individuals in the panel over time. In this case, attrition concerns individuals who are observed as children in t but do not reappear in the panel in $t+1$ or $t+2$. As Table 6.1 shows, a total of 86,937 individuals, or 43% of all individuals observed at least once as children, do not experience a transition to adulthood due to exiting the panel over time. 36,194 individuals are observed only once as children but do not reappear at the next consecutive date (shown in the first row), and 50,743 individuals are observed twice as children but do not reappear in $t+2$ (shown in the fourth row).

Censoring concerns individuals whose outcomes cannot be observed simply because they have not yet occurred. This analysis raises two distinct kinds of censoring: the first concerns individuals who are observed as children once at the last available date of observation (2008). The second impacts individuals who are only observed as children at all three dates. In both cases, the transition to adulthood cannot be observed until a

future EDP date. 60,610 individuals are impacted by the first case, and 11,185 by the second. These cases represent 36% of the total number of individuals observed at least once as children.

To get a sense of how the sample of transitions to adulthood used in this analysis may be impacted by attrition and censoring, I compare descriptive statistics, separately for immigrants and the majority, on two samples: the full panel of individuals who are observed at least once as children (N=201,171) and the individuals who transition to adulthood (N=34,855). These are displayed in Table 6.15 in Appendix E.

5.1.3 Variables Measured in Childhood and Adulthood

A number of variables are used to describe EDP individuals' situations during childhood. These variables capture the characteristics of the individuals' parents. The main independent variables of interest are the neighborhood and housing characteristics of EDP individuals measured during childhood. The neighborhood characteristics used are the immigrant share, the unemployment rate and, for immigrants only, the share of co-ethnics. Parents' housing tenure is measured using a three level categorical variable: homeowners (1), renters on the private market (2), and public housing residents (3). Other covariates measured in childhood referring to the EDP individuals' parents include²: age, occupational category, education, marital status, number of children in the household, and municipality size. In models investigating housing tenure outcomes during adulthood, I also include the following contextual variables: the share of homeowners/public housing in the municipality during childhood, the childhood neighborhood immigrant share and unemployment rate and the childhood department of residence). Some models further control for municipality fixed effects for the *commune* in which the EDP children lived as children.

The main dependent variables are the neighborhood and housing characteristics of EDP individuals when they are observed as adults. Here again, neighborhood characteristics are measured using the immigrant share, the unemployment rate and the share of

²The variables describing the father are used first; when the latter are not available, the mothers' are used.

co-ethnics, and adult housing tenure distinguishes homeowners (1), renters on the private market (2), and public housing residents (3). A number of variables describe the EDP individuals' situation during adulthood and are included in the models as covariates. These include age, gender, occupational category, education, marital status, number of children in the household, city size and year of observation.

As shown in Table 5.1, a portion of the individuals experiencing a transition to adulthood may be observed twice as adults or twice as children. In these cases, I only use the variables which are measured when the EDP individual was last observed as a child and first observed as an adult. In the restricted sample used in Section 5.4, I draw on the full range of information measured during adulthood, i.e. both adult observations.

Summary statistics on all variables are presented in Table 6.16 in Appendix E.

5.2 Exploring the Correlation Between Residential Attainment In Childhood and Adulthood

To begin the investigation of the intergenerational reproduction of residential attainment, this section focuses on transitions between childhood and adulthood in quartiles of the neighborhood immigrant share and unemployment rate. I then model the correlation between childhood and adulthood neighborhood characteristics and assess whether this correlation can be accounted for by factors relating to individuals and their families or to the broader urban context in which they grew up. A similar analysis is applied to explore the intergenerational reproduction of housing tenure.

Reproduction in Neighborhoods

Table 5.3 displays transitions in quartiles of the neighborhood immigrant share and unemployment rate between childhood and adulthood. The first insight gathered from the table is a simple one. Neither immigrants nor the majority are scattered evenly across the distribution of neighborhood characteristics during adulthood. Rather, placement in the neighborhood quartiles during adulthood is conditioned by where one grew up, as

Table 5.3 – *Transitions In Quartiles of the Neighborhood Immigrant Share and Unemployment Rate Between Childhood and Adulthood*

Immigrant Share				
Quartiles in Adulthood				
Quartiles in Childhood	<25th	25th-50th	50-75th	>75th
<i>Majority</i>				
< 25th	54	23	14	10
25th-50th	25	34	24	16
50th-75th	15	27	34	24
>75th	12	18	29	41
Total	28	26	25	21
<i>Immigrants</i>				
< 25th	40	27	17	16
25th-50th	18	35	25	22
50th-75th	10	23	36	31
>75th	4	13	23	59
Total	11	21	27	42
Unemployment Rate				
Quartiles in Adulthood				
Quartiles in Childhood	<25th	25th-50th	50-75th	>75th
<i>Majority</i>				
<25th	34	29	23	14
25th-50th	29	27	25	18
50th-75th	23	25	27	25
>75th	15	20	26	39
Total	26	25	25	23
<i>Immigrants</i>				
<25th	33	28	21	18
25th-50th	28	27	22	23
50th-75th	21	25	27	28
>75th	13	15	25	46
Total	22	23	24	31

Source: EDP 1990-2008 (INSEE).

shown by the fact that the highest percentages in the table are consistently found along the diagonals (in bold) indicating reproduction within the same quartiles over time.

A second essential point emerges from the observation that no matter the measure or the group, reproduction at the extreme ends of the distribution is consistently stronger than reproduction in the middle quartiles. This implies that low concentration and high concentration neighborhoods retain individuals at greater rates than neighborhoods with moderate shares of immigrants or the unemployed, and suggests that if child neighborhoods matter later in life, this effect is relative to the level of disadvantage and immigrant concentration of those neighborhoods.

The last insight provided by the table relates to disparities in reproduction between

immigrants and the majority. Immigrants are more likely to remain in neighborhoods concentrating immigrants: while 41% of French majority members who grew up in the top 25% of neighborhoods with the highest immigrant shares remain in such neighborhoods as adults, 59% of immigrants originating in those neighborhoods continue to live in the top quartile as adults. Inversely, the majority inherits residential positions in low concentration areas at greater rates than immigrants. 54% of the majority who grew up in the 25% of neighborhoods with the lowest immigrant shares remain there in adulthood, compared to only 40% of immigrants.

Moves in and out of concentration neighborhoods can also be discerned in this table, as indicated by movement between the 25th and 75th percentiles. 12% of the majority who grew up in the top quartile of the immigrant share enter the bottom quartile during adulthood, compared to only 4% of immigrants. On the other hand, 16% of immigrants and 10% of the majority, respectively, experience an opposite transition, from the bottom 25% of the neighborhood immigrant share to the top quartile.

Compared to the immigrant share indicator, rates of reproduction within the top and bottom quartiles of the neighborhood unemployment rate between childhood and adulthood are not as strong. Furthermore, the disparity between immigrants and the majority declines somewhat. 46% of immigrants compared to 39% of the majority who grew up in the 25% of neighborhoods with the highest unemployment rates remain in similar neighborhoods later in life. Immigrants and the majority who lived as children in the most advantaged neighborhoods, the bottom 25%, continue to reside in the bottom quartile as adulthoods at similar rates (33% and 34% respectively). Moreover, the two groups appear to experience moves to high and low concentration areas at nearly equal rates.

These descriptive patterns point to an association between the types of neighborhoods that individuals live in as children and adults. I next use OLS regressions to model these correlations, in which I introduce individual and contextual controls incrementally in order to decompose the underlying mechanisms of these correlations. The first set of models are OLS linear regressions using neighborhood characteristics measured during adulthood as dependent variables. Models 1a, 2a and 3a predict the neighborhood immigrant share,

Table 5.4 – *Coefficients of Child Neighborhood Characteristics From Models 1, 2 and 3 Predicting Adult Neighborhood Characteristics*

	Adult Neighborhood Immigrant Share			Adult Neighborhood Unemployment Rate			Adult Neighborhood Co-ethnic Share		
	Col 1 M1a	Col 2 M1b	Col 3 M1c	Col 4 M2a	Col 5 M2b	Col 6 M2c	Col 7 M3a	Col 8 M3b	Col 9 M3c
Child Neighborhood									
Immigrant share	0.383*** (0.004)	0.325*** (0.005)	0.095*** (0.006)						
Unemployment rate				0.247*** (0.004)	0.209*** (0.005)	0.060*** (0.005)			
Co-ethnic share							0.316*** (0.008)	0.273*** (0.009)	0.244*** (0.011)
<i>Individual controls</i>	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
<i>Municipality fixed effects</i>	No	No	Yes	No	No	Yes	No	No	Yes
<i>Observations</i>	34,855	33,189	32,794	34,855	33,189	32,794	6,269	5,543	5,506

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

unemployment rate and share of co-ethnics, respectively, controlling only for those same neighborhood characteristics measured during childhood. These models provide the raw correlation between neighborhood characteristics between childhood and adulthood, or what I call “the reproduction effect”. Models 1b, 2b and 3b introduce all individual-level covariates measured during childhood and adulthood. The final models, Models 1c, 2c and 3c include a municipality fixed effect using the municipality of residence during childhood. Table 5.4 tracks the coefficients relating to child neighborhoods across models.

Let’s first focus on the raw correlation between the variables shown in Columns 1, 4 and 7 (the *a* specifications). All coefficients are positive and significant: increasing shares of immigrants, the unemployed and co-ethnics in the neighborhood during childhood are correlated with increasing shares of those same groups in the neighborhood during adulthood. Yet, the size of the correlation varies across indicators. A 1% increase in the childhood neighborhood immigrant share translates into a 0.38% increase in the neighborhood immigrant share during adulthood. The effect is slightly smaller when considering the association between the share of co-ethnics in immigrants’ local areas in childhood and adulthood, at 0.32. Finally, as the child neighborhood unemployment rate increases by 1%, the unemployment rate in the neighborhood during adulthood rises by 0.25%. The higher coefficients observed for the immigrant share and co-ethnic variables reflects the descriptive trends in Table 5.3, and suggests that individuals may be more strongly tied to immigrant neighborhoods than disadvantaged ones.

Are individuals rooted in certain neighborhoods over time due to their own socio-economic or demographic characteristics, or those of their parents? Columns 2, 5 and 8

(the *b* specifications), report the coefficients of interest when all individual-level factors, measuring the situations of individuals during adulthood and those of their parents during childhood, are added to the models. In all models, adding these controls results in a reduction of the coefficients, indicating that some of the effect of childhood neighborhood characteristics on neighborhood outcomes during adulthood is captured by the situations of individuals and their families. Including individual factors in the model reduces the coefficient related to the childhood neighborhood immigrant share by 15% (0.325/0.383). These factors also account for about 15% of the effect of neighborhood unemployment in childhood (0.209/0.247) and about 14% of the effect of the childhood neighborhood co-ethnic share (0.273/0.316).

As the full model results in Table 6.17 in Appendix E show, most individual factors have a significant impact on neighborhood characteristics during adulthood, controlling for neighborhood characteristics during childhood. Immigrants have greater shares of immigrants, the unemployed and co-ethnics in their neighborhoods as adults. Individuals whose parents have higher occupational status and education show decreased shares of unemployed in their neighborhoods as adults, as do those who themselves achieve high occupational status and education in adulthood. Adult housing tenure is also significantly correlated with neighborhood disadvantage and immigrant concentration in adulthood. Positive correlations are observed between living in public housing and higher neighborhood shares of immigrants/unemployed and negative correlations between homeownership and higher shares of immigrants/unemployed. Parents' housing tenure also matters for adult neighborhood outcomes, as shown by the significant negative impact of parental homeownership on living in immigrant neighborhoods during adulthood. On the co-ethnic variable, however, most parental variables are insignificant. Education during adulthood significantly reduces the share of co-ethnics in the neighborhood, while public housing and homeownership increase it.

Individual factors thus certainly play a role in the transmission of child neighborhood context into adulthood. But to what extent does reproduction depend on determinants relating to the broader context in which individuals grew up? Columns 3, 6 and 9 report the coefficients for the child neighborhood variables after controlling for municipality

fixed effects. Compared with the empty models, the correlations between the child and adult neighborhood immigrant share and unemployment rate are reduced by about 75% (0.095/0.383 and 0.060/0.247 respectively). A reduction in the coefficient for the child neighborhood co-ethnic share is also observed. However, this characteristic appears to be more resilient to contextual controls than the other neighborhood types, as shown by the relatively modest decrease of only about 23% with respect to the empty model (0.244/0.316). As this variable is predicted for immigrants only, the weaker explanatory power of contextual variables may point to less variation in the municipalities in which immigrants live, or a specificity about staying in co-ethnic neighborhoods no matter the original location.

Hence, individual and contextual factors both matter in accounting for the reproduction of neighborhood attainment. Nonetheless, the characteristics of individuals and their parents seem to be relatively weak in explaining the correlation between child and adult neighborhood outcomes compared to the weight of the broader context in which one grew up. Still, net of all controls, original neighborhood characteristics continue to exert an effect on the types of neighborhoods in which one lives during adulthood.

Reproduction in Housing

Table 5.5 explores transitions between childhood and adulthood in housing tenure. As observed with patterns in neighborhoods between generations, a clear association emerges from the figures in bold between the types of housing in which one grew up and the types of housing in which one ends up. Not all housing tenures are transmitted equally, however. The reproduction of homeownership occurs at lower rates than remaining in the private rental sector or in public housing.

Disparities in the extent to which housing tenure is reproduced also varies between immigrants and the majority. Among immigrants, remaining in a renter - whether in the private sector or in public housing - occurs more frequently than any other transition. 53% of immigrants who grew up in public housing or whose parents were renters maintain those same tenures during adulthood. For the majority, however, the transmission of

Table 5.5 – *Transitions in Housing Tenure Between Childhood and Adulthood*

Child Housing Tenure	Adult Housing Tenure		
	Homeowner	Renter	Public housing
	<i>Majority</i>		
Homeowner	31	54	15
Renter	18	63	19
Public housing	13	42	44
Total	25	53	22
	<i>Immigrants</i>		
Homeowner	38	43	19
Renter	21	53	26
Public housing	14	33	53
Total	24	41	34

Source: EDP 1990-2008 (INSEE). Table shows row percentages.

public housing tenure is much weaker, with only 44% of those who grew up in the sector continuing to reside in public housing as adults. At 63%, the majority is much more likely to remain renters between childhood and adulthood.

Contrary to the strong tendency to remain a renter or public housing occupancy, homeownership is not widely transmitted between childhood and adulthood. Interestingly, immigrants are actually more likely to inherit ownership status: 38% of the latter whose parents were homeowners themselves own their homes as adults, compared to only 31% of the majority. Immigrants also show a greater propensity to enter homeownership as adults, with 35% accessing homeownership from the private rental or public housing markets, compared to 31% of the majority.

I model the correlation between child and adult housing tenure using a similar estimation strategy to that applied in the analysis of neighborhood reproduction. This time, I conduct a series of multinomial logistic regression models predicting adult housing tenure in three categories which gradually integrate individual and contextual controls. The first model is a simple multinomial logistic regression controlling only child housing tenure without additional controls (Model 4a). The second model introduces both individual factors measured during adulthood and those referring to individuals' parents (Model 4b), and the final model controls for the effects of contextual variables (Model 4c). Results from the full model (Model 4c) are posted in Table 6.18 in Appendix E.

The analysis focuses on two correlations in particular: child and adult homeownership and child and adult public housing occupancy. I interpret these results using average

Table 5.6 – *Marginal Effects of Childhood Housing Tenure on Adult Housing Tenure From Model 4*

	Adult Homeowner			Adult Public Housing		
	Col 1 M4a	Col 2 M4b	Col 3 M4c	Col 4 M4a	Col 5 M4b	Col 6 M4c
Child housing tenure						
<i>Ref: Renter</i>						
Homeowner	0.131*** [0.12, 0.14]	0.098*** [0.09, 0.11]	0.090*** [0.08, 0.10]			
Public housing				0.268*** [0.25, 0.28]	0.153*** [0.14, 0.17]	0.116*** [0.10, 0.13]
<i>Individual controls</i>	No	Yes	Yes	No	Yes	Yes
<i>Contextual controls (department)</i>	No	No	Yes	No	No	Yes
<i>Observations</i>	34,851	33,189	33,189	34,851	33,189	33,189

Source: EDP 1990-2008 (INSEE). Base outcome is renter.
Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

marginal effects (AME). AME show the change in the predicted probability of a category of the dependent variable according to a change in a category of the independent variable, holding all other variables in the model at fixed values. AME have the advantage of being comparable across models. I therefore track changes across models in the predicted AME on adult housing tenure associated with child housing tenure to determine how the correlation is impacted by the inclusion of individual and contextual controls.

Table 5.6 presents the marginal effects for child housing tenure on two outcomes, homeownership and public housing, calculated from all models. Let's first focus on the empty models including child housing tenure only. Column 1 displays the change in probability of owning one's home during adulthood that is due to having parents who were homeowners rather than renters. Without any additional controls, the marginal effect shows that having parents who owned their homes increases adult homeownership by about 13%. Similarly, the marginal effect reported in Column 4 shows the change in probability of living in public housing during adulthood that is linked to growing up in public housing: living in public housing during childhood increases the likelihood of experiencing this outcome as an adult by 27%. Thus, it appears that the effect of parental housing tenure is particularly salient to housing tenure in adulthood when it comes to living in public housing.

It could be that housing tenure in the previous generation influences housing in the next generation simply because it is masking socioeconomic characteristics of parents and their children. Such mechanisms could in particular condition the propensity to stay in more disadvantaged forms of housing, such as public housing. To explore these possibilities, the next set of marginal effects, in Columns 2 and 5, results from the model

including individual controls (M4b). As the table shows, the marginal effects associated with both outcomes are reduced due to the inclusion of these variables. Net of other factors, child homeownership increases the probability of being a homeowner later in life by about 10%, which corresponds to a decrease in probability of about 25% (0.098/0.131). Including these same controls results in a reduction of the marginal effect associated with child public housing tenure by over 40% (0.153/0.268).

Hence, the socioeconomic and demographic profiles of individuals and their families are in fact quite decisive for explaining why parental housing tenure matters to their children later in life. This is particularly true for the transmission of public housing tenure. While child tenure still exerts a significant effect on adult tenure, holding these characteristics constant quite strongly reduces the disparity in living in public housing during adulthood between those who did and did not grow up in the sector.

Finally, adding contextual controls in Model 4c triggers a further decline in the marginal effects associated with child housing tenure. Adding these additional controls does not greatly impact the marginal effect related to child homeownership on adult homeownership (Column 3). The change in probability only falls from 0.10 to 0.09. The inclusion of these variables, however, once again produces a larger reduction in the effect of child public housing tenure on living in public housing as an adult. In this case, the AME drops from 0.15 to 0.12, or a reduction of more than 20%.

The full model results displayed in Table 6.18 in Appendix E show that several individual and contextual level variables are significantly correlated with adult housing tenure. Children of immigrants have greater odds compared to children of French natives of living in public housing compared to renting, but also of being homeowners. Higher education and occupational status of parents decrease the likelihood that their children will live in public housing as adults, and similar effects of these variables are found for individuals during adulthood. Education and occupational status of parents, however, do not have a clear impact on their children becoming homeowners later in life. Family size during childhood also increases the odds of public housing tenure and decreases the odds of being a homeowner during adulthood. Unsurprisingly, city size during adulthood matters for housing tenure, with reduced odds of homeownership and increased odds of living in

public housing as municipality size increases. Context during childhood does not exert many significant effects on housing tenure during adulthood. Both the share of public housing and homeowners in the municipality during childhood have positive correlations on homeownership and public housing later in life. Interestingly, growing up in neighborhoods with high unemployment has a weakly significant but positive effect of living in public housing as an adult.

Overall, these findings point to the conclusion that the intergenerational reproduction of public housing tenure is stronger than reproduction of homeownership. Again, these results should be nuanced with respect to the relatively young age of the individuals as adults. Access to homeownership can occur late in life, even among those whose parents are themselves homeowners. Moreover, individual and contextual factors play an important role in explaining why housing tenure is inherited between generations. These are especially salient mechanisms in accounting for public housing transmission, but have limited relevance in accounting for the lasting effect of child homeownership. Still, for both homeownership and public housing outcomes, child housing tenure continues to exert a significant effect on adult housing outcomes even after controlling for these factors.

5.3 Intergenerational Reproduction and Immigrant Origin Inequalities

Evidence of immigrant origin disparities in neighborhoods and housing has now been widely documented in the previous chapters of this dissertation. Furthermore, the analyses of the previous section has established that the neighborhoods and housing in which individuals lived as children are potent factors for understanding current residential outcomes. Merging these two insights prompts the question of whether immigrant origin disparities are in part a consequence of the inheritance of residential situations from the previous generation. In this section, I explore the link between the transmission of child and adult neighborhood and housing outcomes and current residential inequalities between immigrant origin groups. The analyses revolve around three broad questions: First,

how much of immigrant origin inequalities in neighborhoods and housing are absorbed by childhood residential attainment? Second, is the “reproduction effect” noticeably strong for non-Europeans? And lastly, do individual and contextual variables have similar explanatory power for all origin groups in accounting for the intergenerational reproduction of residential attainment?

Reproduction in Neighborhoods

Table 5.7 portrays transitions in quartiles of the neighborhood immigrant share and unemployment rate between childhood and adulthood by immigrant origin. First of all, inequalities in current neighborhood outcomes are visible in the column totals. Non-Europeans have a 20 to 30 percent greater chance than Europeans of living in the top quartile of the neighborhood immigrant share and unemployment rate.

For children of immigrants of all origins, originating in concentration neighborhoods also increases the likelihood of living in concentration neighborhoods as adults. As ascertained in the previous section, individuals originating in neighborhoods with the highest shares of immigrants and the unemployed appear to be at the greatest risk of reproducing their former neighborhoods, as shown by the highest rates of reproduction with the top quartiles.

However, comparing those who lived in similar neighborhoods during childhood reveals distinctive patterns across origins. Children of European immigrants exhibit neighborhood transitions that mirror those observed for the majority in the previous section. Only about half (48%) who grew up in the top quartile of the neighborhood immigrant share continue to reside in such areas as adults. The risk that Europeans will reproduce disadvantaged neighborhood outcomes over the life course is also relatively low, with only 34% of those originating in the 25% of neighborhoods with the highest unemployment rates remaining in such residential environments later in life. On the other hand, reproduction within low concentration neighborhoods is quite high and again resembles patterns observed for the majority: 44% and 39% who originate in the first quartile of the immigrant share and unemployment rate, respectively, stay in the first quartile during adulthood. Europeans

Table 5.7 – *Transitions In Quartiles of the Neighborhood Immigrant Share and Unemployment Rate Between Childhood and Adulthood by Immigrant Origin*

Immigrant Share				
Quartiles in Childhood	Quartiles in Adulthood			
	<25th	25th-50th	50-75th	>75th
<i>Europe</i>				
<25th	44	26	17	13
25th-50th	20	38	26	16
50th-75th	11	25	39	24
>75th	5	18	28	48
Total	14	25	30	30
<i>Africa</i>				
<25th	36	23	17	24
25th-50th	14	30	25	31
50th-75th	9	21	32	38
>75th	4	10	23	63
Total	8	16	25	51
<i>Asia/Turkey</i>				
<25th	5	43	29	24
25th-50th	21	16	17	46
50th-75th	6	18	38	38
>75th	4	12	14	69
Total	7	15	21	58
<i>Other</i>				
<25th	39	42	9	9
25th-50th	11	40	29	20
50th-75th	6	16	32	45
>75th	4	11	12	73
Total	9	21	21	49
Unemployment Rate				
Quartiles in Childhood	Quartiles in Adulthood			
	<25th	25th-50th	50-75th	>75th
<i>Europe</i>				
<25th	39	28	20	13
25th-50th	34	28	21	16
50th-75th	25	28	25	22
>75th	18	19	29	34
Total	29	26	24	21
<i>Africa</i>				
<25th	23	28	22	26
25th-50th	17	25	25	33
50th-75th	16	21	29	33
>75th	10	13	23	54
Total	14	18	25	42
<i>Asia/Turkey</i>				
<25th	25	19	26	30
25th-50th	25	33	14	28
50th-75th	17	27	21	35
>75th	13	19	21	47
Total	18	23	21	38
<i>Other</i>				
<25th	32	27	26	15
25th-50th	29	26	20	24
50th-75th	17	28	24	30
>75th	22	20	26	32
Total	25	25	24	26

Source: EDP 1990-2008 (INSEE). Table shows percentages.

also have relatively high chances of moving out of the most disadvantaged neighborhoods, with 18% leaving the 75th quartile for the 25th quartile. The only salient difference with the majority is the low probability of Europeans to exit high concentration immigrant neighborhoods. Only 5% transitioning from the 75th quartile to the 25th quartile.

The story for children of non-European immigrants stands in stark contrast. For Africans, Asians and Turks who grew up in neighborhoods with the highest shares of immigrants and the unemployed, the probability of living in similar environments as adults is much greater, at 63% for Africans and 69% for Asians and Turks. These reproduction rates within concentration neighborhoods over the life course are more than twenty points higher than those observed for the majority and Europeans. Inversely, originating and continuing to live in low share immigrant neighborhoods is quite rare for non-Europeans, particularly for Asians and Turks. Likewise, the reproduction of neighborhood advantage is low, at only 23% for Africans and 25% for Asians and Turks compared to 39% for Europeans. Finally, the risk that non-Europeans will exit the bottom quartile in childhood for a higher one in adulthood is, on both indicators, about double that observed for children of Europeans. The opposite trajectory is quite limited, with less than 5% of non-European immigrants moving from the top to the bottom quartiles of the immigrant share and less than 13% of moving from the top to the bottom quartiles of the unemployment rate.

Non-Europeans immigrants are thus disproportionately exposed to high concentration neighborhoods during childhood and adulthood, and reveal a greater risk of reproducing child neighborhood environments within neighborhoods with the highest shares of immigrants and the greatest levels of disadvantage. I apply a series of OLS regression models to delve further into patterns of neighborhood reproduction and immigrant origin inequalities. Models 5, 6 and 7 predict the adult neighborhood share of immigrants, the unemployed and co-ethnics respectively. Two model specifications are used. The first includes immigrant origin as the only covariate (specification *a*). The second (specification *b*) adds the respective child neighborhood characteristics. Table 5.8 reports the coefficients across models.

The first aim of these models is to assess the degree to which childhood neighborhood

Table 5.8 – *Coefficients for Immigrant Origin and Childhood Neighborhood Characteristics from Models 5, 6 and 7 (a and b)*

	Adult Neighborhood Immigrant Share		Adult Neighborhood Unemployment Rate		Adult Neighborhood Co-ethnic Share	
	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6
	M5a	M5b	M6a	M6b	M7a	M7b
Immigrant origin						
<i>Ref: Majority</i>					<i>Ref: Europe</i>	
Europe	0.021*** (0.001)	0.009*** (0.001)	-0.006*** (0.001)	-0.007*** (0.001)		
Africa	0.065*** (0.001)	0.038*** (0.001)	0.042*** (0.001)	0.029*** (0.001)	0.014*** (0.001)	0.010*** (0.001)
Asia/Turkey	0.079*** (0.003)	0.046*** (0.003)	0.033*** (0.003)	0.023*** (0.003)	0.011*** (0.002)	0.007*** (0.001)
Child Neighborhood						
Immigrant share		0.336*** (0.005)				
Unemployment rate				0.229*** (0.004)		
Co-ethnic share						0.300*** (0.008)
<i>Individual controls</i>	No	No	No	No	No	No
<i>Contextual controls (municipality)</i>	No	No	No	No	No	No
<i>Observations</i>	34,855	34,855	34,855	34,855	6,269	6,269

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$.

characteristics account for immigrant origin disparities in neighborhood outcomes during adulthood, or in other words, the degree to current spatial inequalities are inherited from the previous generation. As Column 1 in Table 5.8 shows, children of all immigrant origins have significantly higher shares of immigrants in their neighborhoods as adults than the majority. Differences with the majority and non-Europeans are the most pronounced. Africans, Asians and Turks live in neighborhoods with average immigrants shares that are 7 to 8 percentage points higher. Disparities in the adult neighborhood unemployment rate, displayed in Column 3, also document higher average levels of disadvantage in non-Europeans' neighborhoods. Europeans, on the other hand, live in areas with significantly lower unemployment rates than the majority. Finally, compared to Europeans, Africans, Asians and Turks have higher shares of co-ethnics in their neighborhoods.

Columns 2, 4 and 6 report the coefficients for immigrant origin after adding the respective child neighborhood characteristics to the models. Immigrant origin disparities decline with respect to those displayed in Columns 1, 3 and 5 for almost all groups on all indicators after taking the reproduction effect into account. The neighborhoods in which individuals grow up thus appear to account for some of the current gap between immigrants and the majority. Controlling for the neighborhood in childhood is especially prominent in reducing the disparity between immigrants and the majority when it comes to living in immigrant neighborhoods. The coefficient is more than cut in half for Europeans, while the coefficients for Africans, Asians and Turks is reduced by about 40%. A

Table 5.9 – *Coefficients for the Interaction Between Immigrant Origin and Childhood Neighborhood Characteristics from Models 5, 6 and 7 (c, d and e)*

	Adult Neighborhood Immigrant Share			Adult Neighborhood Unemployment Rate			Adult Neighborhood Co-ethnic Share		
	Col 1 M5c	Col 2 M5d	Col 3 M5e	Col 4 M6c	Col 5 M6d	Col 6 M6e	Col 7 M7c	Col 8 M7d	Col 9 M7e
<i>Ref: Majority</i>							<i>Ref: Europe</i>		
Europe	0.010*** (0.002)	0.015*** (0.002)	-0.002 (0.002)	-0.006* (0.002)	-0.008*** (0.002)	-0.001 (0.002)			
Africa	0.040*** (0.002)	0.039*** (0.003)	0.014*** (0.002)	0.023*** (0.003)	0.005† (0.003)	0.009*** (0.003)	0.011*** (0.001)	0.007*** (0.001)	0.004** (0.001)
Asia/Turkey	0.043*** (0.005)	0.054*** (0.006)	0.028*** (0.005)	0.019** (0.006)	0.006 (0.006)	0.013* (0.006)	0.001 (0.002)	-0.003† (0.002)	-0.005* (0.002)
<i>Interaction with child neighborhood</i>									
Majority	0.334*** (0.006)	0.318*** (0.006)	0.059*** (0.007)	0.226*** (0.005)	0.199*** (0.005)	0.045*** (0.006)			
Europe	-0.011 (0.016)	-0.005 (0.016)	0.055*** (0.014)	-0.005 (0.016)	0.009 (0.016)	0.008 (0.015)	0.286*** (0.016)	0.252*** (0.016)	0.156*** (0.021)
Africa	-0.010 (0.014)	-0.015 (0.014)	0.081*** (0.013)	0.038** (0.013)	0.060*** (0.013)	0.080*** (0.013)	-0.027 (0.020)	-0.032 (0.020)	0.047† (0.025)
Asia/Turkey	0.014 (0.025)	0.006 (0.027)	0.129*** (0.024)	0.023 (0.031)	0.059† (0.033)	0.119*** (0.032)	0.146*** (0.025)	0.201*** (0.026)	0.306*** (0.032)
<i>Individual controls</i>	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
<i>Contextual controls (municipality)</i>	No	No	Yes	No	No	Yes	No	No	Yes
<i>Observations</i>	34,855	33,189	32,794	34,855	33,189	32,794	6,269	5,543	5,506

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

reduction in immigrant origin disparities is also seen for the average share of unemployed in adult neighborhoods. Taking into account child neighborhood disadvantage is particularly important for the gap between non-Europeans and the majority, as the coefficients for Africans, Asians and Turks are cut by about 30%. Finally, inequalities between Europeans and non-Europeans in the adult neighborhood co-ethnic share drop as well when the child neighborhood co-ethnic share is controlled for: the coefficient for Africans is reduced by about 30% and by about 40% for Asians and Turks.

The second aim of these models is to determine whether the correlation between child and adult neighborhood characteristics is of similar intensity across immigrant origin groups, or whether the impact of childhood neighborhood characteristics is significantly stronger for non-Europeans. Furthermore, I assess whether individual or contextual covariates explain differential reproduction effects across groups. To test this hypothesis, Models 5c, 6c and 7c, still predicting the adult neighborhood immigrant share, unemployment rate and share of co-ethnics respectively, introduce an interaction between the immigrant origin variable and childhood neighborhood characteristics. The final specifications determine whether unequal reproduction patterns can be explained by individual and contextual factors of the individuals and their parents. Models 5d, 6d and 7d add all individual-level covariates while Models 5e, 6e and 7e include municipality fixed effects. The full results can be found in Table 6.19 in Appendix E.

Table 5.9 displays the coefficients for the interaction term across models. The coeffi-

cients referring to the immigrant origin variable now show the adjusted mean difference between immigrants and the majority in the adult neighborhood share of immigrants, unemployed and co-ethnics for individuals whose child neighborhoods had no immigrants, the unemployed or co-ethnics. The interaction term for the majority shows the effect of the child neighborhood characteristics for the majority. The interaction coefficients for all other groups report the predicted difference with the majority in this effect.

Let's first refer to the immigrant share outcome. First, even when the children of immigrants grow up in neighborhoods with no immigrants, they still live as adults in areas with significantly higher immigrant shares relative to the majority (Col 1). Yet, the disparities are not as strong as the average raw differences observed in Column 1 of Table 5.8. This is further evidence that growing up in neighborhoods with increasing shares of immigrants indeed reinforces disparities linked to origin. Second, the interaction term shows no significant differences between the majority and immigrants in the effect of the childhood neighborhood immigrant share in the first two specifications. It is only when the municipality fixed effects are included in the model that all immigrant groups show a significantly higher reproduction effect compared to the majority, which is especially strong for non-Europeans. Hence, if immigrants exhibit a stronger correlation between child and adult neighborhood characteristics, this can be attributed to the broader urban areas in which they live.

Findings for the unemployment indicator are slightly different. In this case, only Africans, and to a lesser extent Asians and Turks, who grew up in areas with no unemployment have significantly higher unemployment rates in their neighborhoods as adults. Here again, the lower net differences with the majority compared to those seen earlier indicate that disparities are reduced between groups when childhood neighborhood disadvantage is taken into account. Next, as the interaction term illustrates, only Africans, and to a lesser extent Asians and Turks, show a significantly stronger reproduction of neighborhood disadvantage compared to the majority. Moreover, including individual and contextual controls does not account for the stronger effect seen for non-Europeans, but actually intensifies the difference in the reproduction effect with respect to the majority, as shown by the increase in the interaction coefficient for Africans, Turks and Asians

between Columns 4, 5 and 6.

Finally, what patterns in reproduction are observed in local areas concentrating co-ethnics? Compared to Europeans who grew up in neighborhoods with no co-ethnics, Africans with similar childhood neighborhood contexts still live in areas with higher shares of co-ethnics during adulthood. On the other hand, for Asians and Turks the difference is negative, suggesting that if these groups live in neighborhoods with higher co-ethnic shares as adults, it is only true for those who lived in neighborhoods concentrating co-ethnics as children. Finally, Asians and Turks show a significantly strong reproduction effect compared to Europeans. This is also true for Africans once municipality fixed effects are included in the model.

Reproduction in Housing

Table 5.10 explores the transmission of housing tenure between parents and children by immigrant origin. As previously established, disparities between groups in access to homeownership and concentration within public housing during adulthood are salient, as shown in the column totals. Africans are at a particular disadvantage on the housing market compared to the majority, with more than double the chances of living in public housing and half the likelihood of owning their homes. Once again, Asians and Turks show a divide between, on the one hand, relatively high rates of public housing occupancy paired with quite high rates of homeownership.

Are inequalities in adult housing tenure reduced if we compare immigrants who grew up in the same type of housing? The evidence points to the contrary. Among public housing occupants during childhood, Europeans have a 39% chance of remaining in the sector as adults. However, Africans originating in the public housing sector have a 60% chance that they will live in public housing as adults.

While Africans more frequently transmit public housing tenure to their children, they are also at a disadvantage in the capacity to pass on homeownership. Only 30% of Africans whose parents were homeowners have this tenure as adults. In contrast, 41% of Europeans whose parents were homeowners also own their homes as adults. Similarly, the propensity

Table 5.10 – *Transitions in Housing Tenure Between Childhood and Adulthood By Immigrant Origin*

Childhood Housing Tenure	Adult Housing Tenure		
	Homeowner	Renter	Public housing
<i>Europeans</i>			
Homeowner	41	44	16
Renter	24	56	20
Public housing	21	40	39
Total	32	46	22
<i>Africans</i>			
Homeowner	30	41	30
Renter	14	52	34
Public housing	9	31	60
Total	15	37	48
<i>Asians/Turks</i>			
Homeowner	48	36	16
Renter	35	40	25
Public housing	19	31	50
Total	29	34	37
<i>Others</i>			
Homeowner	32	57	11
Renter	17	52	32
Public housing	17	29	54
Total	24	48	27

Source: EDP 1990-2008 (INSEE). Table shows row percentages.

to transition towards homeownership among children of renters on the private market is greatly restricted for Africans (23%) and more common among Europeans (45%).

Asians and Turks exhibit polarized patterns of reproduction which differ from the European/African divide. On the one hand, Asians and Turks, like Africans, have high rates of remaining in public housing between childhood and adulthood, at 50%. On the other hand, the transmission of homeownership between parents and children is the highest seen for any group. 48% of Asians and Turks whose parents were homeowners also access homeownership later in life. Access to homeownership among children whose parents rented in the private or public housing market is also substantial - at 54%, Asians and Turks show the highest rate compared to all other groups.

Interestingly, with the exception of Africans, these trends in the intergenerational transmission of homeownership point to an immigrant advantage over the French majority. Europeans, Asians and Turks indeed show a greater capacity to both transmit homeownership and access homeownership between generations.

Let's further explore the links between intergenerational patterns in housing tenure transmission and immigrant origin inequalities using multinomial logistic regression mod-

els. I first apply two specifications to investigate whether immigrant origin inequalities in housing tenure during adulthood can be accounted for by parents' positions on the housing market. Model 8a predicts adult housing tenure, including only the immigrant origin variable as a covariate. Model 8b introduces childhood housing tenure. The findings are interpreted as average marginal effects of immigrant origin on being a homeowner or living in public housing during adulthood. The AME are reported in Table 5.11.

Columns 1 and 3 in the table display the raw difference in probability of adulthood homeownership and public housing occupancy, respectively, between each immigrant group and the majority. The homeownership advantage of Europeans, Asians and Turks compared to the majority is again visible, while Africans show a 10 point lower probability of being homeowners. Europeans and the majority do not significantly differ in the probability of living in public housing as adults, while differences between the majority, on the one hand, and Africans, Asians and Turks, on the other, are substantial.

Column 2 shows the marginal effects of immigrant origin for the homeownership outcome, this time resulting from the model that control for childhood housing tenure. Holding childhood housing tenure constant, the adult homeownership advantage of Europeans, Asians and Turks is reinforced, as shown by the increase in the AME between Columns 1 and 2. Net of childhood tenure, Europeans have an 8% higher probability, and Asians and Turks a 13% higher probability of owning their homes during adulthood. In this case, inequalities are thus intensified when taking childhood housing tenure into account, implying that parental homeownership is particularly decisive for the adult homeownership of Europeans, Asians and Turks.

A reverse trend is seen for Africans. Introducing childhood housing tenure as a control significantly reduces the predicted difference in probability of adult homeownership with the majority. While Africans are still at a significant disadvantage, the difference in probability is now only 3 points, a reduction of about 70% in the AME with respect to Column 1. Hence, child housing tenure plays an important role in explaining differences between Africans and the majority during adulthood.

Does controlling for childhood housing tenure level immigrant origin disparities in adult public housing? Column 4 reports the AME for adult public housing once childhood

Table 5.11 – *Marginal Effects of Immigrant Origin on Adult Housing Tenure (Models 8a and 8b)*

	Adult Homeowner		Adult Public housing	
	Col 1 M8a	Col 2 M8b	Col 3 M8a	Col 4 M8b
<i>Ref: French natives</i>				
Europeans	0.071*** [0.05, 0.09]	0.081*** [0.06, 0.10]	0.006 [-0.01, 0.02]	-0.004 [-0.02, 0.01]
Africans	-0.101*** [-0.12, -0.09]	-0.033*** [-0.05, -0.02]	0.267*** [0.25, 0.29]	0.136*** [0.12, 0.15]
Asians/Turks	0.044* [0.00, 0.09]	0.133*** [0.08, 0.18]	0.150*** [0.11, 0.19]	0.039* [0.00, 0.07]
<i>Tenure during childhood</i>	No	Yes	No	Yes
<i>Individual controls</i>	No	No	No	No
<i>Contextual controls (municipality)</i>	No	No	No	No
<i>Observations</i>	34,851	34,851	34,851	34,851

Source: EDP 1990-2008 (INSEE). Base outcome is renter. Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

housing tenure is included in the model. Indeed, taking into account childhood housing tenure substantially reduces the disadvantage of Africans, Asians and Turks compared to the majority. For Africans, the difference with the majority is attenuated by about 50% (0.136/0.267), while for Asians and Turks the gap in probability is reduced by over 70%.

The final aim of this analysis is to assess whether there are significant differences linked to immigrant origin in the correlation between child and adult housing tenure, and determine whether individual and contextual factors account for the reproduction effect in similar ways across groups. Model 8c includes an interaction between childhood housing tenure and immigrant origin with no other covariates. The final two specifications gradually introduce individual controls (Model 8d) and contextual controls (Model 8e). Full model results are posted in Table 6.20 in Appendix E.

Table 5.12 again provides an interpretation of the model results in terms of average marginal effects of child housing tenure on adult housing tenure. This time, the marginal effects are expressed by group and result from the interaction between child housing tenure and immigrant origin. First of all, as shown in the full model results, the interaction term is not significant. This is further reflected in the confidence intervals associated with the marginal effects which overlap if we compare them across groups. Hence, the housing reproduction effect is not significantly stronger for any particular immigrant origin.

Still, by comparing the marginal effects across columns, it is possible to identify how well individual and contextual variables account for housing reproduction. In fact, it appears that these factors do not have the same value in explaining reproduction trends for all origins. Among the French majority, controlling for individual factors reduces

the marginal effect of childhood homeownership by almost 30% (Column 1/Column 2). While an equally strong reduction in the marginal effects is also observed for Europeans, the overlapping confidence intervals do not confirm a statistically significant difference. Among Africans, Asians and Turks, individual variables are even less potent in accounting for the reproduction effect. The marginal effects are only reduced by about 17% and 15%, respectively, when these factors are included, but the confidence intervals also prevent us from confirming a difference in effect (Column 1/Column 2). Including contextual controls results in a further decrease, though again, these do not appear to be statistically significant differences.

Finally, how well do individual and contextual variables explain reproduction in public housing? Once again, the explanatory power of these variables appears to vary by immigrant origin. Controlling for individual factors reduces the marginal effect of childhood public housing tenure for the majority by about 40% (Column 4/Column 5). While individual controls also reduce the average marginal effects for Europeans, Africans, Asians and Turks, we cannot conclude as to a statistically significant difference. Adding the contextual controls, however, significantly reduces the effect of childhood public housing for all groups except for Asians and Turks.

Overall, individual and contextual factors do not play much of a role in explaining why immigrants transmit homeownership, but they do account for some of the homeownership reproduction among the majority. Furthermore, public housing reproduction among the French majority can also be explained by individual and contextual. For immigrants, contextual factors seem to be more decisive. Still, for all groups except Asians, child homeownership still positively and significantly impacts adult homeownership net of controls. For all groups, the significant positive correlation between child and adult public housing is also confirmed once other factors are taken into account.

All in all, it appears that the housing market positions of immigrants' parents is a salient factor for understanding current housing disparities with the majority for non-European immigrants in particular. Individual and contextual factors are more potent for natives in explaining why child tenure matters, while for immigrants - context matters more for public housing.

Table 5.12 – *Marginal Effects of Childhood Housing Tenure on Adult Housing Tenure By Immigrant Origin*

	Col 1 M8c	Adult Homeowner Col 2 M8d	Col 3 M8e	Col 4 M8c	Adult Public Housing Col 5 M8d	Col 6 M8e
Child housing tenure						
Majority						
<i>Ref: Renter</i>						
Homeowner	0.127*** [0.11, 0.14]	0.093*** [0.08, 0.10]	0.086*** [0.07, 0.10]			
Public housing				0.255*** [0.24, 0.27]	0.147*** [0.13, 0.016]	0.112*** [0.10, 0.13]
Europe						
<i>Ref: Renter</i>						
Homeowner	0.167*** [0.13, 0.21]	0.120*** [0.08, 0.16]	0.108*** [0.07, 0.14]			
Public housing				0.189*** [0.14, 0.24]	0.111*** [0.07, 0.15]	0.081*** [0.04, 0.12]
Africa						
<i>Ref: Renter</i>						
Homeowner	0.152*** [0.11, 0.20]	0.126*** [0.08, 0.18]	0.118*** [0.07, 0.17]			
Public housing				0.259*** [0.21, 0.31]	0.189*** [0.14, 0.23]	0.145*** [0.10, 0.19]
Asia/Turkey						
<i>Ref: Renter</i>						
Homeowner	0.130* [0.00, 0.26]	0.111 [-0.02, 0.24]	0.080 [-0.05, 0.21]			
Public housing				0.249*** [0.15, 0.35]	0.174*** [0.08, 0.27]	0.130** [0.03, 0.23]
<i>Interaction immigrant origin and childhood</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Individual controls</i>	No	Yes	Yes	No	Yes	Yes
<i>Contextual controls (department)</i>	No	No	Yes	No	No	Yes
<i>Observations</i>	34,851	34,851	33,189	33,189	33,189	33,189

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

5.4 How Durable are Childhood Neighborhoods?

The analyses just proposed present the limit of using a sample in which only one date of observation during adulthood is used. The previous analyses thus investigate adult outcomes relatively early in life, and are not able to assess long-term patterns in residential outcomes. In what follows, I aim to better explore the lasting effects of childhood residential context by drawing on a reduced sample of children transitioning to adulthood, namely individuals who are observed twice in EDP as adults. By taking advantage of a greater range of information available during adulthood, the next section aims to explore the durability of childhood residential status.

Table 5.13 displays the five most frequent sequences in neighborhoods between 1990 and 2008 according to the quartiles of the neighborhood immigrant share and unemployment rate. In 1990, all individuals were observed as children. In 1999, the first adult observation is available, and in 2008, the individuals are again observed as adults.

This view of transitions makes it possible to assess the durability of child neighborhoods. If we first examine the quartiles of the immigrant share, the most frequent sequence shows reproduction in low concentration immigrant neighborhoods over time: 10% of the sample experience this type of sequence. The second most frequent sequence, observed

Table 5.13 – *The Five Most Frequent Sequences in Neighborhood Quartiles of the Immigrant Share and Unemployment Rate Between 1990 and 2008*

Quartiles of the Immigrant Share			
1990 (Child)	1999 (Adult)	2008 (Adult)	%
<25th	<25th	<25th	10
>75th	>75th	>75th	8
50th-75th	>75th	>75th	4
25th-50th	25th-50th	25th-50th	4
25th-50th	50th-75th	50th-75th	3
Quartiles of the Unemployment Rate			
1990 (Child)	1999 (Adult)	2008 (Adult)	%
>75th	>75th	>75th	6
<25th	25th-50th	25th-50th	5
<25th	50th-75th	25th-50th	4
<25th	<25th	<25th	4
<25th	25th-50th	<25th	4

Source: EDP 1990-2008 (INSEE)

for 8% of the sample, is remaining in high concentration immigrant neighborhoods. Out of the remaining three most frequent sequences, one of them represents stability over the three dates while the others show mobility. 4% of the sample moves from the top third quartile in 1990 into the fourth quartile in 1999, where they remain in 2008. 4% remain within the second quartile, and 3% move from the second quartile in 1990 into the third quartile in 1999, where they remain in 2008.

These patterns point to three notable findings. First, the most common trajectories are not mobility between quartiles, but rather stability within the same types of neighborhoods. Second, child neighborhood characteristics appear to be the most durable for individuals originating in the extremes of the distribution. It is those individuals who originate in the low and high concentration areas, not those in the middle quartiles, who remain there over time. Finally, in the two sequences showing some form of mobility, the transition occurs between childhood and adulthood, 1990 and 1999, but then stays constant across the two adult observations.

Neighborhood sequences according to the unemployment rate reveal a slightly different trend. In this case, the most frequent sequence shows individuals who remain in the most disadvantaged neighborhoods over the three dates (6%), followed by individuals who grow up in the bottom quartile of the unemployment rate and move to the second quartile in 1999, remaining there in 2008 (5%). 4% of the sample also move between quartiles, transitioning from the first to the second and back to the first quartile over the three

Table 5.14 – *Coefficients from the Interaction Between Child Neighborhood Characteristics and Year of Observation From Models 9, 10 and 11*

	Adult Immigrant Share Model 9	Adult Unemployment Rate Model 10	Adult Co-ethnic share Model 11
<i>Ref: 1999</i>			
2008	0.006*** (0.001)	-0.012*** (0.001)	-0.001 (0.001)
<i>Interaction year*child neighborhood characteristics</i>			
1999	0.111*** (0.007)	0.129*** (0.007)	0.204*** (0.014)
2008	-0.004 (0.007)	-0.086*** (0.008)	-0.037** (0.123)
<i>Individual controls</i>	Yes	Yes	Yes
<i>Contextual controls (department)</i>	Yes	Yes	Yes
<i>Observations (i*t)</i>	20,730	20,730	3,059

*Source: EDP 1990-2008 (INSEE). Standard errors in parentheses. *** p<0.001, ** p<0.01, * p<0.05, † p<0.10*

dates. The fourth most frequent sequence refers to individuals who grow up in the most advantaged areas and remain there at all observations (4%), while the last sequences shows mobility between the bottom quartile in 1990, the second quartile in 1999 and the bottom quartile in 2008.

Therefore, in the case of sequences within quartiles of the unemployment rate, mobility between quartiles is somewhat more frequent than that observed for the immigrant share indicator. Furthermore, the durability of childhood neighborhood disadvantage is more common than the durability of neighborhood advantage.

Finally, the sequences that are omitted from this table are equally insightful for understanding intergenerational reproduction. For instance, no movement out of the top or bottom quartiles between childhood and adulthood are observed. Hence, just as stability within high and low concentration areas is common, moves out of these neighborhoods are relatively infrequent.

To conclude, I test whether time significantly weakens the effect of child neighborhood characteristics. To do so, I use random effects OLS regression models that include an interaction between child neighborhood characteristics and the year in which the individual was observed as an adult, i.e. 1990 and 2008. Models 9, 10 and 11 predict the adult neighborhood share of immigrants, the unemployed and the share of co-ethnics, respectively, including those same neighborhood characteristics during childhood as covariates. Full model results are included in Table 6.21 in Appendix E.

Table 5.16 reports the coefficients from the interaction between the child neighborhood characteristics and year of observation resulting from the models. The coefficient relating to year expresses the difference in the share of immigrants, the unemployed and co-ethnics

in the adult neighborhood between 1999 and 2008 when those child neighborhood shares are equal to zero. The coefficient for the 1999 in the interaction term shows the impact of child neighborhood characteristics, while the coefficient for 2008 reports the difference in the effect of child neighborhood characteristics with respect to 1999. This difference is pertinent for understanding the persistence of child neighborhood characteristics over the life course.

The findings show different patterns depending on the neighborhood indicator. No significant difference is found between 1999 and 2008 for the effect of the child neighborhood immigrant share. In other words, the correlation between child and adult neighborhoods is in this case quite persistent, and does not weaken even 18 years later. Examining the correlation between child and adult neighborhoods in terms of the share of co-ethnics does, on the other hand, reveal a significant difference between 1999 and 2008. Hence, the correlation here appears to be less resistant over time: the change from 1999 to 2008 corresponds to a 4% net decrease in the effect. Finally, the effect of the neighborhood unemployment rate during childhood appears to be the most prone to change over time. Between 1999 and 2008, the effect decreases significantly by about 9 points.

5.5 Discussion and Conclusion

This chapter investigated the intergenerational reproduction of neighborhood and housing among children of immigrants and the majority in France. Three broad aims structured this analysis. First, I sought to identify the extent to which neighborhood and housing outcomes are correlated between childhood and adulthood, and the factors accounting for this correlation. Second, I focused on whether immigrant origin disparities in residential outcomes could be partially attributed to child neighborhoods and housing through uneven patterns of reproduction across groups. Finally, the durability of the “reproduction effect” was assessed using a restricted sample of individuals observed over a period of 18 years. As in previous analyses in this dissertation, neighborhood outcomes were analyzed using various indicators of the immigrant and socioeconomic profile of immigrants’ and the majority’s local areas.

How and Why Child Neighborhoods and Housing Matter

The main finding from this chapter is, quite simply, that the neighborhood and housing outcomes of parents are influential in shaping the residential outcomes of their children later in life. This finding is in line with the few extant studies investigating intergenerational dynamics in spatial inequalities, both in the U.S. (Vartanian et al., 2007; Sharkey, 2008, 2013) and in Europe (Van Ham et al., 2014). A number of analyses documented this correlation. Descriptive findings showed that individuals end up in similar neighborhoods during adulthood to the ones in which they grew up. Likewise, children are likely to achieve the same housing positions as their parents. In both cases, these correlations are durable even years following the transition to adulthood. All in all, if we consider positions in neighborhoods and housing as forming a system of stratification, these findings point to a quite rigid system in which the mobility of individuals is constrained over time.

Moreover, not all child neighborhood and housing situations matter in the same ways to residential outcomes later in life. Indeed, reproduction occurs most intensely in neighborhoods with either high or low concentrations of immigrants, the unemployed or co-ethnics. Reproduction in neighborhoods with moderate concentrations, on the other hand, is not as pronounced. In other words, neighborhoods with high levels of disadvantage/advantage or high/low shares of immigrants are the most apt to be inherited over time. The magnitude of reproduction in housing likewise varies according to the type of tenure, with public housing occupancy being passed on at higher rates than homeownership.

The use of multiple indicators of neighborhood characteristics also sheds light on how the rigidity of child neighborhoods varies across different kinds of neighborhoods, according to their socioeconomic and immigrant composition. Indeed, previous studies have focused on the reproduction of neighborhood disadvantage only, but do not look at the ways in which residence in immigrant or co-ethnic neighborhoods is passed along between childhood and adulthood. The findings here tend to show stronger correlations between child and adult outcomes in immigrant or co-ethnic neighborhoods compared to neighborhoods measured by the unemployment rate. This is suggestive that individuals may be particularly prone to remaining in high immigrant or non-immigrant neighborhoods

over time, while experiencing greater mobility in terms of socioeconomic neighborhood outcomes. This could be reflecting residential preferences to remain in immigrant neighborhoods, but a desire to leave disadvantage ones when resources allows.

Some reasons why neighborhood and housing outcomes may be transmitted across generations were also explored here. The results show that individual factors - the characteristics of individuals as adults as well as those of their parents during childhood - are quite weak in accounting for reproduction in neighborhoods. On the other hand, contextual determinants, namely the municipalities in which children grew up, are more decisive for explaining the link between child and adult neighborhoods. This implies that reproduction is shaped strongly by the broader urban areas in which individuals are embedded. Opportunities for residential mobility over the life course, which could weaken the propensity to stay in similar areas as those one grew up in, may be more difficult in certain cities due to specific housing and job market conditions. Individual factors are, however, more salient for explaining housing reproduction, especially within public housing, even though contextual factors are also of strong importance to this type of reproduction. The importance of inheritance mechanisms in passing along homeownership, but which are not captured for in these models, may perhaps explain why individual factors appear to have limited importance for homeownership reproduction.

Still, net of these controls, child neighborhood and housing characteristics continue to exert a significant effect on adult outcomes. Lessons from social stratification and the neighborhood effects literature indicate that residential situations may be self-perpetuating and durable over time due to material and symbolic mechanisms that ground individuals in place. Restricted opportunities for social mobility among individuals originating in disadvantaged neighborhoods may impede residential mobility over the life course if such areas concentrate lower quality educational resources, jobs and social capital. Evidence of ethnoracial school segregation in France, and the lower levels of educational achievement in these schools, (Van Zanten, 2001; Felouzis, 2003) could shape social mobility later in life and residential mobility out of deprived neighborhoods. Initial research into neighborhood effects in France gives further reason to believe that neighborhood contexts may be self-perpetuating. These studies show that living in an immigrant neighborhood prevents

unemployed people from finding a job and that living in the most deprived neighborhoods increases the probability of unemployment (Gobillon et al., 2011; Rathelot, 2014; Dujardin and Goffette-Nagot, 2005; Aeberhardt et al., 2015).

At a more symbolic level, neighborhoods also offer status rewards or stigma that can favor or hinder social mobility and residential mobility. The status derived from places of residence that become attached to individuals can be a source of exclusion and discrimination. These status distinctions help form notions about where one should or should not live, and can contribute to constraining individuals to similar neighborhoods over time. Evidence of residence-based discrimination have been shown to exist in France on job and housing markets (Bonnet et al., 2015). Finally, more subjective mechanisms also tie groups to places over time. The places in which people grow up shape identities and a sense of belonging which in turn conditions preferences for residential location later in life.

The Intergenerational Reproduction of Neighborhoods and Housing and Immigrant Origin Disparities

The assumptions about the durability of spatial outcomes over time and generations put forth in the neighborhood effects literature are considered to apply to all groups, regardless of immigrant origin, race or ethnicity. I just discussed why this perspective views space as a mechanism that shapes residential outcomes later in life, independently of other factors. However, social stratification theory also highlights the ways in which different dimensions around which inequalities are organized - such as class, race/ethnicity and space - might interact. From this standpoint, we might expect that the effects of child neighborhood and housing may be of varying intensity for different immigrant origin groups.

Our findings highlighted that, indeed, specific patterns of reproduction are found across immigrant origins. This conclusion joins those of Sharkey (2008) and Van Ham et al. (2014). Europeans and the majority have relatively low chances of remaining in top concentration neighborhoods between childhood and adulthood, whether measured by the immigrant share or unemployment rate. They also exhibit lower chances of remaining in public housing and greater transmission of homeownership between generations. In-

versely, the inheritance of disadvantage in neighborhoods and housing between childhood and adulthood were more commonly found for non-Europeans. Africans are less likely to reproduce residence in low concentration neighborhoods, and are more likely to stay in high concentration areas. The parents of Africans are also less likely to pass along homeownership to their children, and more likely to transmit public housing tenure.

The intensity of reproduction in neighborhoods and housing was also confirmed in models controlling for other factors. Immigrants in general showed a stronger net correlation between child and adult neighborhoods as measured by the immigrant share. However, the effect of child neighborhood unemployment was particularly stronger for Africans, Asians and Turks. Remaining in co-ethnic neighborhoods over generations also appeared to be more prominent for non-Europeans relative to Europeans. Moreover, the explanatory power of individual and contextual characteristics in explaining differential patterns of reproduction was not similar for all groups.

Hence, similar to the evidence from Chapter 4 that original location and immigrant origin interact to produce specific forms of disadvantage, these findings provide further evidence in this direction, over a greater span of time. Non-Europeans and Africans in particular may suffer more than the majority and Europeans from the disadvantages of place, facing even lower opportunities for social and residential mobility when they originate in high concentration neighborhoods. Moreover, discrimination based on address may interact with and reinforce ethnoracial discrimination and exclusion to reduce the residential options open to non-Europeans and Africans in particular. Such experiences of exclusion may reinforce not only minorities' roots in specific neighborhoods, but also shape their subjective attachments to certain places. These mechanisms produce an interweaving of immigrant origin inequalities and spatial inequalities that are self-perpetuating over time and generations.

The final main finding from this chapter concerns the relevance of taking child context into account when exploring residential inequalities linked to immigrant origin. Indeed, neighborhood and housing situations early in life are a key mechanism that shapes immigrant origin disparities in these same outcomes later in life. Controlling for neighborhood characteristics reduces the neighborhood gap during adulthood between all immigrant

groups and the majority. Likewise, accounting for parental homeownership or public housing residency significantly reduces current housing disparities between groups later in life. Inequalities were particularly narrowed between the majority and Africans. These findings reflect those of (Sharkey, 2013), who demonstrates that a fair share of current inequality in neighborhood poverty between Africans Americans and whites in the U.S. can be attributed to child neighborhood context.

This conclusion has important theoretical implications for the study of immigrants' spatial incorporation and ethnoracial spatial inequalities in general. Perspectives from spatial assimilation do not give much credence to the notion that inequalities experienced by immigrants may be passed on to their children. On the contrary, the theory posits that inequalities will decline in a quite mechanical fashion between successive generations of immigrants, as acculturation and social mobility mechanisms are set in motion. Current residential outcomes are thus, from this point of view, largely a product of current levels of socioeconomic status, acculturation, and so forth. Place stratification, the other dominant theoretical model in the field, pays more attention to the interaction between race/ethnicity and place, but it does not fully integrate the idea of intergenerational reproduction of inequalities within its framework. Emphasis is more strongly placed on current mechanisms of exclusion, discrimination and prejudice, or residential preferences. Hence, neither perspectives provide much incentive to look to the past in order to understand current spatial outcomes.

It is on this point that the broader lens of social stratification theory is particularly useful and helps shift the perspective on spatial incorporation patterns. The degree of mobility or stability within hierarchies of places needs to be better understood in order to describe and explain immigrant origin disparities in neighborhoods and housing. Finally, this view of inequalities helps partly overcome the discrimination/preferences debate in interpretations of inequalities in residential outcomes (Sharkey, 2013). If neighborhood and housing positions are inherited, then current inequalities could be the result of exclusion or discrimination in the previous generation. Those neighborhood settings during childhood then shape preferences for residential locations chosen later in life. Hence, while preferences may be at work to keep minorities in disadvantaged immigrant neighborhoods,

it is difficult to distinguish between preferences, exclusion and discrimination and the way these interweave over the life course and across generations.

Conclusion

In this dissertation, I aimed to offer a new perspective on the study of immigrants' spatial incorporation in France. To do so, I relied on two recent individual-level data sets, integrating multiple indicators of neighborhood and housing characteristics. Chapter 1 provided the theoretical frameworks for the approach to immigrants' spatial incorporation, drawing insights from spatial assimilation theory, place stratification, social stratification research and the neighborhood effects literature. Chapter 2 presented the data used in this study, rare sources in France in which immigrants and their offspring can be identified by detailed national origin. The analysis of immigrants' spatial incorporation covered three empirical chapters. Chapter 3 aimed to assess the tenets of spatial assimilation theory. This was done by exploring trends in the evolution of neighborhood disparities between immigrants and the majority and the role of migration factors, socioeconomic status and immigrant origin in accounting for these disparities. Further, I explored the diverging ways in which neighborhood and housing outcomes are intertwined across immigrant origin groups. Chapter 4 adopted a dynamic perspective on neighborhood and housing outcomes. Drawing on longitudinal data, the patterns and determinants of residential mobility trajectories were explored as well as housing transitions over time. Finally, Chapter 5 proposed an analysis of spatial inequalities from an intergenerational perspective. In addition to assessing the durability of residential inequalities over the life course, I further investigated how child neighborhood and housing outcomes shape immigrant origin disparities later in life.

The findings from these analyses converge on a number of points. First, key mechanisms of spatial assimilation resonate partially in these results. The socioeconomic mechanisms of spatial outcomes, as well as intermarriage, emerge as important factors of immi-

grants' residential outcomes. While patterns were also observed across immigrant length of stay and generation, these factors did not consistently prove to be decisive.

Second, the findings point not to one spatial assimilation process for all immigrant groups, but rather diverging spatial assimilation processes according to the origin of immigrants and their offspring. Indeed, in all analyses, origin emerged as a prominent factor of disparities with the French majority, and the mechanisms of spatial assimilation were shown to have varying significance to residential trajectories depending on origin.

Third, support was not consistently found for the assumption, central within the spatial assimilation perspective, that time mechanically weakens spatial inequalities between immigrants and the majority. On the contrary, a number of findings point to the durability of residential situations over time and across generations.

To conclude, I expand on these findings by discussing how the immigrant origin disparities documented here can be considered a form of ethnoracial inequality in France. I further comment on the links between social and residential (im)mobility and their implications for ethnoracial inequalities. Finally, I discuss the policy implications of these findings and avenues for further research.

Immigrant Origin Disparities as Ethnoracial Inequalities

Throughout this dissertation, a substantial body of evidence points to the conclusion that immigrant origin matters considerably to the kinds of neighborhoods and housing in which people live. While I chose not to use the terminology of race/ethnicity in the presentation of the empirical results, I argue here that the disparities linked to origin documented throughout these analyses can be considered a form of ethnoracial stratification that interacts in important ways with two other key dimensions along which inequalities are organized: class and place.

Immigrants of all origins were shown to have greater chances of living in neighborhoods concentrating immigrants compared to the French majority. Yet, this is particularly true for Non-Europeans, for whom a tendency of increasing spatial concentration over time was also found. When it comes to spatial disadvantage, not all non-Europeans are impacted to the same degree. North Africans, Sub-Saharan Africans and Turks are substantially

exposed to local areas with high shares of low-income households and high unemployment rates. In addition, disadvantage on the housing market predominately impacts North Africans and Sub-Saharan Africans, who display considerably lower probabilities of homeownership and greater chances of living in public housing, particularly in immigrant neighborhoods. For these groups, spatial disadvantage appears to crystallize on multiple dimensions.

Importantly, the European/non-European divide is not necessarily the most pertinent for describing the patterns of spatial disparities observed here. Indeed, Asians and Turks, while also showing signs of residential disadvantage, stand out from North Africans and Sub-Saharan Africans in important ways. Taking into account individual and contextual factors helps absorb the effect linked to immigrant origin for these groups. On the other hand, net effects of immigrant origin are found almost systematically for North Africans and Sub-Saharan Africans. These results suggest that while the disadvantage of Turks and Asians can be compensated by socioeconomic status, or attenuated by migration factors and other demographic characteristics, Africans almost always experience persistent disadvantage.

Not only do differences in neighborhood and housing outcomes for North Africans and Sub-Saharan Africans persist, but they also appear to be durable over time and generations. These groups show the lowest chances of exiting immigrant neighborhoods and disadvantaged spaces, accessing homeownership or leaving public housing. They also have the greatest chances of passing on residential disadvantage to the next generation. The persistence of inequalities among second generation North Africans and Sub-Saharan Africans in all of the analyses, even those controlling for the characteristics of their parents, is strongly indicative of the salience of origin for these groups. Furthermore, evidence that the disadvantage faced by North Africans and Sub-Saharan Africans declines noticeably only among only second generation immigrants with a French parent, found in Chapter 3, is strongly suggestive that ethnoracial mechanisms are at work. Mixed origin appears to be of specific importance to Africans, but not other groups, in achieving greater equality with the mainstream.

Following a social stratification approach, according to which race/ethnicity are con-

sidered to be socially constructed categories that provide a foundation for resource distribution, the specific forms of disadvantage impacting Africans outlined in these chapters reveal that, in an analogous way as race/ethnicity, origin is an organizing principle of spatial inequalities in French society. Furthermore, just as social stratification theory postulates that race and other dimensions of stratification - class, gender, place - interact, the evidence here also indicated specific articulations of class, place and origin. Chapter 3 showed that residential outcomes vary substantially among Africans with different socioeconomic status. Chapter 4 provided support that disadvantaged trajectories in neighborhoods and housing impacted Africans who were previously located in disadvantaged immigrant neighborhoods. Similarly, Chapter 5 evidenced that immigrant origin inequalities during adulthood are in part shaped by the neighborhoods and housing in which they lived in as children.

Finally, the particular inequalities in residential outcomes impacting Africans are in line with evidence of discrimination and racism in French society (De Rudder et al., 2000; Fassin and Fassin, 2013; Fassin, 2014; Mayer et al., 2014). The descriptive statistics from TeO documented in Chapter 3 reveal that North Africans and Sub-Saharan Africans are more likely to report experiences of discrimination on the housing market, which they most commonly attribute to skin color, nationality or origin, and religion. Studies on housing market discrimination also show practices of exclusion and steering that are directed towards these groups (HALDE, 2006; Bonnet et al., 2015; Sala Pala, 2005; Simon et al., 2001). All in all, whatever the objective criteria in which the perception of racial/ethnic differences are grounded - be it skin color, culture, religion - these distinctions draw boundaries between individuals based on which spatial inequalities are engendered, maintained and perpetuated.

Social and Spatial (Im)mobilities and the Ethnoracial Stratification System

Another key finding in this dissertation is that neighborhood and housing positions are quite durable over the life course in ways that substantially shape ethnoracial spatial inequalities. Chapter 4 and Chapter 5 both highlighted the importance of taking into account time in the analysis of residential outcomes, and showed that original location,

whether at an early moment in time or in the previous generation, helps account for why Africans in particular are placed in disadvantaged positions in the place hierarchy. Indeed, the lesson that can be drawn here is that spatial positions - just like social positions - should not be conceived of merely as achieved individual outcomes, but also as inherited ones. Spatial inequalities are thus not only a story of available resources, or only of experiences of current exclusion and discrimination, but are also a product of previously existing situations that are transmitted over time.

This point has important implications because, as the neighborhoods effects literature brings to light, mobility in spatial positions is intimately linked to social mobility. On the one hand, social mobility can be seen as a mechanism that opens up doors to residential opportunities, notably towards less disadvantaged neighborhood and housing outcomes. On the other hand, residential mobility can be seen as an avenue towards improved socioeconomic outcomes.

While the analyses in this dissertation did not specifically assess how residential mobility might enhance social mobility, evidence of the stability of residential inequalities over time, highlighted in Chapters 4 and 5, suggests that opportunities for social mobility may be confined in durable ways for some groups. Non-Europeans are more likely to move within the same municipality, move to similar neighborhoods and remain in the same types of housing. For these groups, residential mobility may not be equated with opportunity - towards homeownership, upward spatial mobility and upward social mobility - but rather contributes to reinforcing existing inequalities in spatial and social outcomes.

This relationship between social and residential (im)mobility can also be grasped from an intergenerational perspective. The findings in Chapter 5 highlighted the intergenerational transmission of positions of advantage/disadvantage in neighborhoods and housing. These patterns raise a broader question about how the transmission of residence across generations conditions opportunities for intergenerational social mobility. The neighborhood effects literature emphasizes that the ability of parents to transmit capital to their children is facilitated in advantaged spaces and hindered in disadvantaged spaces. Individuals who grow up in disadvantaged neighborhoods may thus face greater obstacles to maintaining the socioeconomic positions of their parents, or reaching better ones. On

the other hand, maintaining and achieving privilege across generations may be easier to achieve when positions of residential advantage are passed along between parents and their children.

This interconnectedness of social and spatial (im)mobilities over the life course and across generations takes on additional meanings when embedded with other dimensions of inequalities, such as race/ethnicity. A key point raised in social stratification theory is that when race-based inequalities are crystallized in space, they are intensified, reinforced and perpetuated (Massey, 2007). When ethnoracial groups are sorted unevenly into space, spatial differences strengthen material and symbolic differences between groups (Safi, 2015).

Material differences are reinforced, as individuals living in disadvantaged spaces have restricted access to valued economic resources, such as jobs, housing, and educational opportunities. This uneven distribution of capital across places is not random, but results in the power of dominant social groups to capture and channel resources into their areas (Logan and Molotch, 1987). As resources and opportunities are hoarded in space (Tilly, 1999), positions of social privilege become reserved to those who are able or permitted to access those spaces. When access to space is hinged on race, resources may be denied to entire groups (Massey, 2007).

Further, symbolic differences are strengthened, as space contributes to the construction of status differences between individuals as well as the formation of group identity. Neighborhoods have status (Sampson, 2012): the stigma surrounding poor neighborhoods contributes to stigmatizing individuals who live there, while the privilege of valued spaces provides status rewards to their inhabitants. At the same time, neighborhoods are a source of identity and a sense of community that help create or solidify a sense of groupness of among individuals. When racial groups are concentrated in low status areas, negative stereotypes are attached to those groups, engendering or reinforcing meanings about racial distinctions. Likewise, notions of groupness are also produced and sustained around these racial differences.

In other words, the fusion of spatial inequalities with ethnoracial inequalities participates in the broader production of ethnoracial inequalities. In this sense, spatial in-

equalities participate in a process of racialization (Omi and Winant, 2015) engendering and shaping the meanings associated with race, meanings on which the distribution of resources in society are hinged. In a context such as France, where race and ethnicity are thought to be meaningless distinctions between individuals, at least in the eyes of the Republican model, the organization of spatial inequalities along ethnoracial lines has broader implications for the construction of racial meanings in French society. In this sense, durable spatial inequalities linked to race/ethnicity help construct and perpetuate a broader system of ethnoracial stratification in French society.

Policy Implications

Inevitably, the findings presented in this dissertation raise a number of questions about policies - notably, their role in reducing or sustaining spatial inequalities.

The evidence of ethnoracial inequalities in neighborhoods and housing calls into question the effectiveness of policies in France that seek to combat segregation on the basis of a socioeconomic interpretation of spatial inequalities. The use of social mix policies in France, which are grounded in income or occupational criteria, use the assumption that segregation, even if it takes on an ethnoracial form, is the reflection of class inequalities. Mixing income groups should thus mechanically reduce ethnoracial segregation. This predominant policy frame, however, undermines the fact that specific race-based mechanisms may be contributing to segregation.

Within the public housing sector itself, despite the formal frame of social mix policies, racial steering practices are widely institutionalized, and channel minorities into certain neighborhoods. In this case, policies actually contribute to reinforcing inequalities they are designed to combat. At the same time, ethnoracial discrimination on the private housing market is not explicitly addressed by the French state through specific anti-discrimination policies. In this contradictory dynamic, public housing agencies at a local level rely on practices that perpetuate ethnoracial segregation, while the French state continues to ignore policymaking at a national level that would combat ethnoracial inequalities and discrimination (Simon, 1999; Safi, 2014).

In addition to urban policies targeting segregation, one can further question the full

effectiveness of place-based policies such as (*la politique de la ville*). These policies have the aim of improving socioeconomic conditions in deprived neighborhoods and promoting individuals' prospects for social mobility by injecting resources into specific areas and implementing development programs. If such policies are successful in weakening the negative repercussions of living in deprived areas, they may indirectly promote the social mobility of minorities living in such areas. However, if ethnoracial discrimination on job and housing markets continues to block the opportunities open to these groups, such policies may be of limited effectiveness. It is conceivable that the benefits to such policies may disproportionately return to individuals who, though disadvantaged by residential location, do not face additional obstacles to jobs and housing linked to race/ethnicity. From this point of view, such policies could result in enabling greater upward social mobility prospects for majority group members, enabling them to leave disadvantaged areas, only to reinforce existing ethnoracial spatial inequalities. As long as job and housing market discrimination remain unrecognized in French policy-making, it is reasonable to assume that place-based policy designs would be limited in their ability to help minorities living in disadvantaged neighborhoods.

* * *

The central questions of this dissertation could be extended in several ways, using both qualitative and quantitative methods. Further knowledge about residential choices and preferences among immigrants and the majority is greatly needed in the French context. Qualitative studies investigating the criteria intervening in neighborhood choice, reasons for moving, and residential histories would help further pinpoint the mechanisms behind the findings presented here. More inquiry is also needed into the experiences of immigrants on the housing and mortgage markets to understand the specific barriers that these groups are confronted with.

As EDP continues to be enriched over time, further studies could explore the durability of neighborhood and housing situations. It would be useful to continue to investigate the impact of neighborhoods on residential and social mobility outcomes, with a focus on the

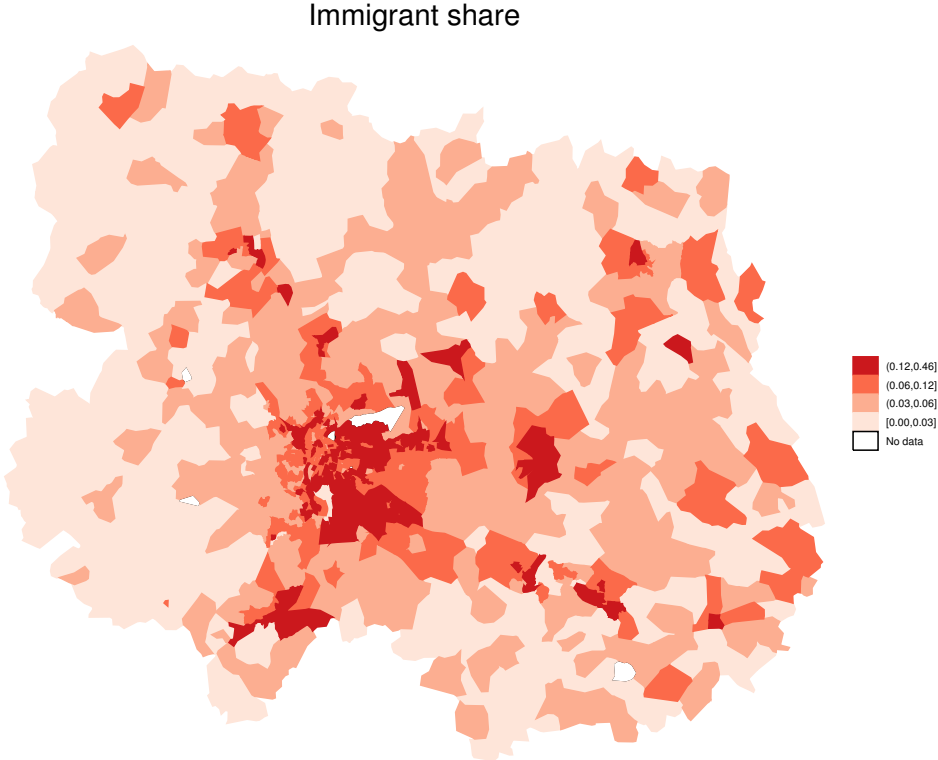
specific effects of long-term exposure to deprived immigrant neighborhoods on moving, accessing jobs, and accessing homeownership. Finally, these initial findings on intergenerational spatial mobility invite further exploration of the links between intergenerational spatial mobility and social mobility between parents and their children.

Chapter 6

Appendix

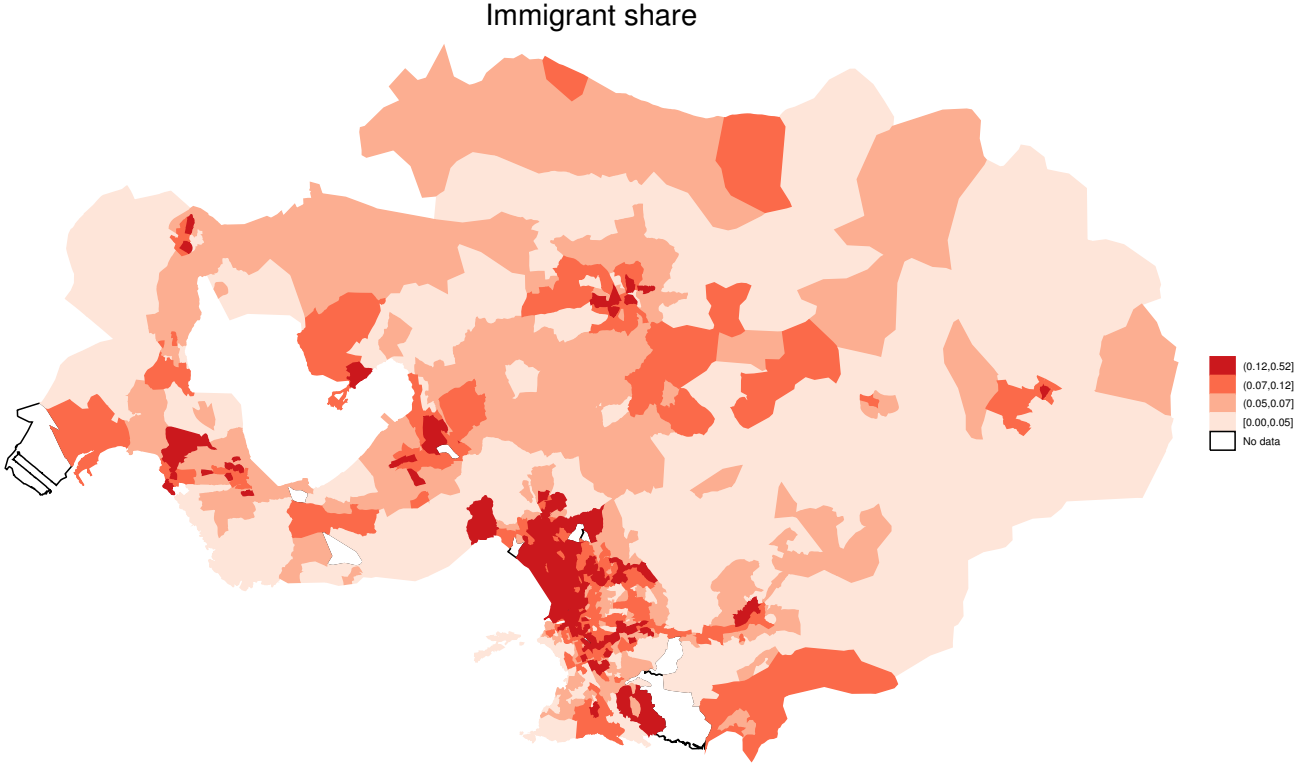
Appendix A

Figure 6.1 – Concentration of Immigrants in IRIS of the Urban Area of Lyon



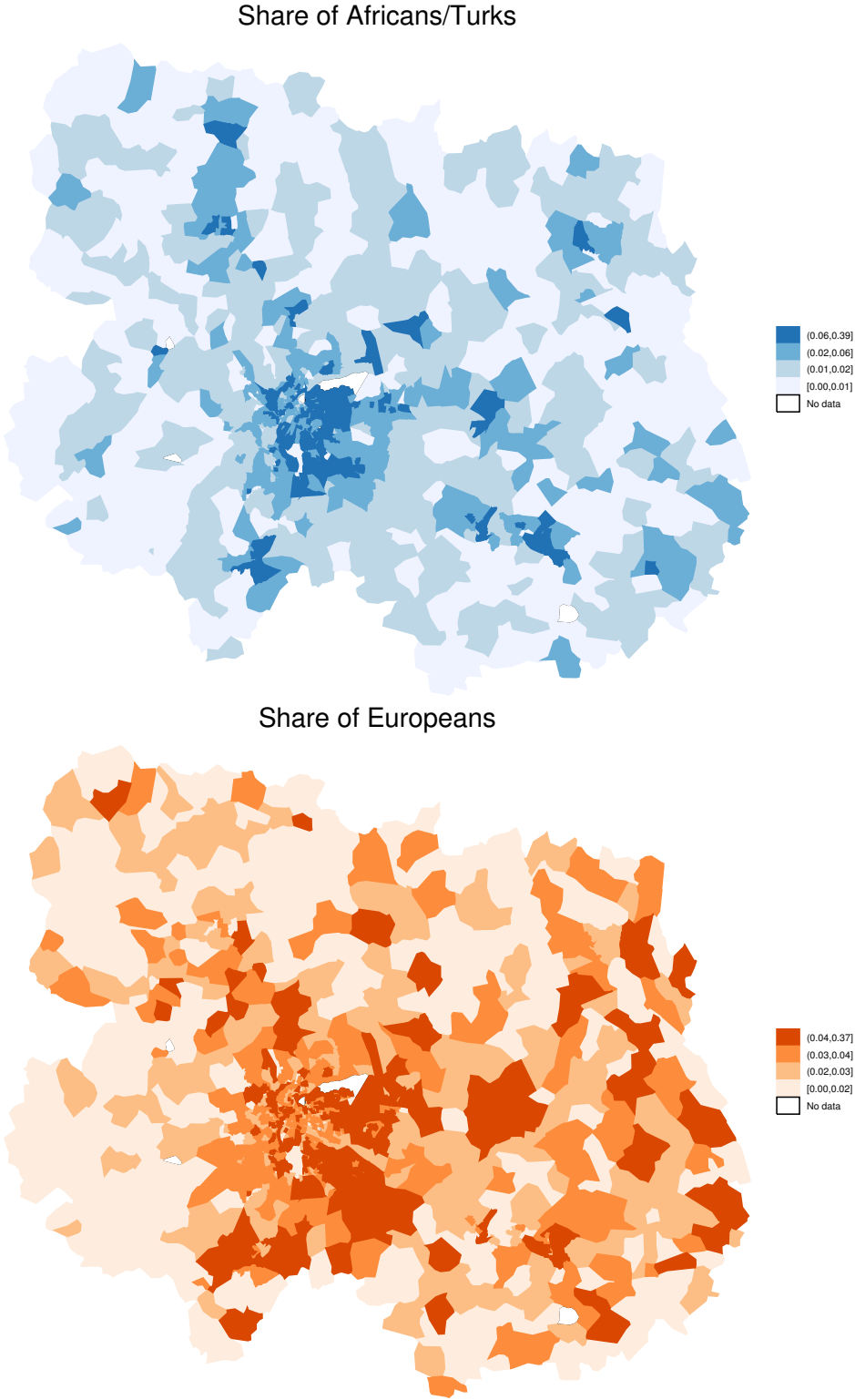
Source: French Census (INSEE) 2008.

Figure 6.2 – Concentration of Immigrants in IRIS of the Urban Area of Marseille



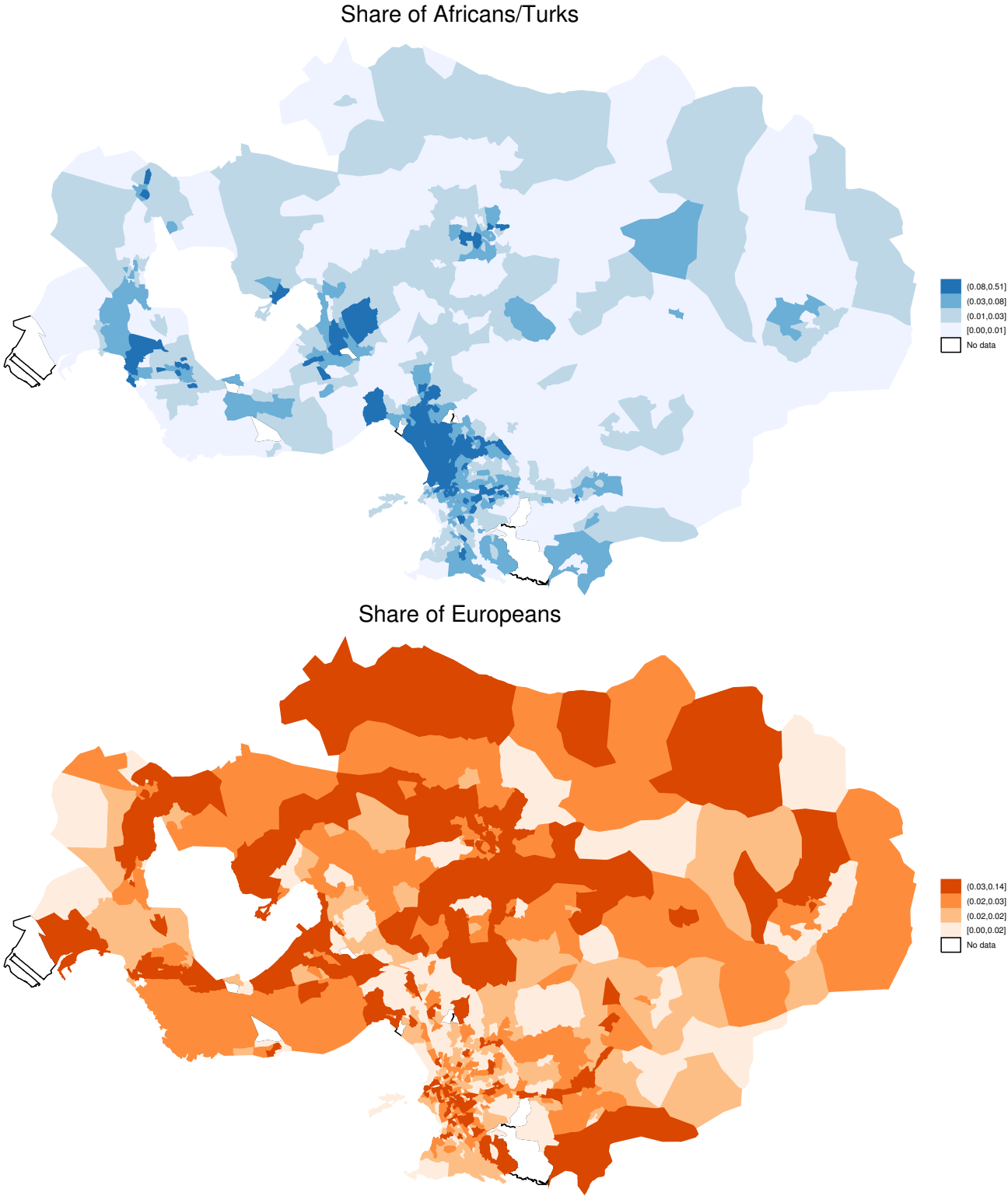
Source: French Census (INSEE) 2008.

Figure 6.3 – Concentration of Immigrants By Origin in IRIS of the Urban Area of Lyon



Source: French Census (INSEE) 2008.

Figure 6.4 – Concentration of Immigrants By Origin in IRIS of the Urban Area of Marseille



Source: French Census (INSEE) 2008.

Appendix B

I use all dates of observation from 1968 to 2008 to construct generational categories in EDP.

However, the longitudinal nature of the data raises specific difficulties as individuals may change categories over time. The first change concerns individuals who transition between adulthood and childhood. The variable describing the position of the individual within the household only becomes available in 1975. Hence, some individuals who were not observed as children of a household due to the lack of this variable in 1968 may “become” children at a later date. Furthermore, individuals who were first observed as children may later be observed as adults when they leave the parental home and become adults in their own household. Finally, given the declarative nature of the variables relating to country of birth and nationality at birth that make it possible to distinguish between immigrants and French majority members, individuals may change declarations over time. Individuals who are identified as immigrants in t , i.e. they declare having been born outside of France without French citizenship at birth, may declare that they are French born citizens at a following date. These “incoherent” transitions may not be due merely to measurement error. They could be revealing a trend among certain immigrants to identify as French due to events over the life course (such as naturalization, getting married to a French person, having children, feelings of identity and belonging as “French”, or even social mobility processes).¹

¹The links between “becoming French” and other social processes could be analyzed as a distinct research question, and evoke the fluidity of ethnoracial categories in relation to social inequality documented by Saperstein and Penner (2012).

Table 6.1 – *Transition Table of Generational Categories*

	G1 Immigrants	G1 Majority	G1.5 Immigrants	G2 Immigrants	G2 Majority
G1 Immigrants	90	5	4	1	0
G1 Majority	0	89	0	1	10
G1.5 Immigrants	52	7	38	3	0
G2 Immigrants	0	32	0	63	5
G2 Majority	0	53	0	1	46

Source: EDP 1968-2008 (INSEE). Table shows percentages. N=1,165,919.

Table 6.1 displays transitions over time for all years between categories of generations. Among the first generation, 90% of G1 immigrants stay G1 immigrants. 5% experience an “incoherent” transition, becoming French majority members over time. Another 5% experience transitions “back” to childhood: they become a child in an immigrant household (G2 immigrant), or an immigrant who is observed as a child (G1.5). This change most likely represents individuals who were children in 1968, but were only identified as such when the variable measuring household position became available in 1975. For a similar reason, 10% of G1 majority members return “back” to childhood, mostly in a majority member household (10%). Only 38% of G1.5 immigrants stay in this category over time. Most become G1 immigrants, as they move from “child” to “adult” in a household, while 7% experience “incoherent” transitions towards the French majority category.

Among the second generation, 63% of G2 immigrants remain in the same category over time. About a third become G1 majority members. This can be considered a “normal” transition as most G2 immigrants are French born citizens and are thus identified as such once they leave the parental home. Similarly, 53% of G2 majority members become G1 majority members, which can be considered a “normal” transition towards adulthood.

As the identification of G2 immigrants as children is necessary for the construction of this category, I stabilize these categories so that individuals who are observed as children (G2 immigrants, G2 majority and G1.5) at least once over time are identified as such at all dates. Hence, if individuals observed at least once as a G2 immigrant, a G2 majority member or a G1.5 immigrant, I assign them to these categories at all dates. In the case of contradictions between these three groups, I privilege the G2 immigrant category, such that a G2 majority or G1.5 immigrant who is also observed as a G2 immigrant is assigned to the latter category. As concerns the “incoherent” transitions, I assign to the G1 im-

migrant category any individual who was observed at least once as a G1 immigrant and never as a child. The conditions for belonging to the category of G1 majority members are the most strict: individuals are only considered to belong to this category if they are observed as a G1 majority and never as any other category.

Appendix C

Table 6.2 – *Descriptive Statistics for Section 3.1*

	Full Sample		Cohort Sample	
	French majority	Immigrants	French majority	Immigrants
G1	0.65	0.57	0.42	0.38
G1.5	.	0.10	.	0.14
G2	0.35	0.33	0.58	0.48
Before 1968	0.58	0.29	0.77	0.40
1968-1975	0.12	0.16	0.20	0.29
1975-1982	0.07	0.15	0.02	0.15
1982-1990	0.05	0.16	0.01	0.17
1990-1999	0.01	0.11	.	.
1999-2008	0.17	0.12	.	.
Men	0.47	0.50	0.46	0.47
Age	48	43	40	39
Single	0.33	0.35	0.30	0.31
Married to immigrant	0.02	0.30	0.02	0.28
Married to French	0.50	0.24	0.58	0.34
Widowed	0.09	0.06	0.01	0.01
Divorced	0.07	0.05	0.08	0.06
Number of children	0.60	0.65	1.16	1.15
Father	0.32	0.31	0.35	0.34
Mother	0.35	0.33	0.43	0.42
Child	0.11	0.18	0.09	0.13
Other	0.22	0.18	0.13	0.10
No degree	0.41	0.52	0.30	0.42
Professional certificate	0.23	0.18	0.29	0.28
Bac	0.16	0.13	0.16	0.12
University	0.21	0.17	0.25	0.18
Other professions	0.06	0.05	0.04	0.05
Managers	0.11	0.06	0.13	0.08
Intermediary professions	0.18	0.10	0.21	0.13
White collar	0.24	0.18	0.24	0.21
Blue collar	0.17	0.23	0.16	0.22
Unemployed (never worked)	0.00	0.02	0.00	0.01
Students	0.07	0.11	0.04	0.05
Inactive	0.10	0.15	0.10	0.13
Unemployed	0.06	0.10	0.07	0.11
Owner	0.58	0.40	0.58	0.47
Renter	0.25	0.30	0.24	0.25
Public housing	0.17	0.30	0.18	0.28
<100,000	0.35	0.24	0.33	0.26
>100,000	0.44	0.42	0.48	0.45
Paris region	0.20	0.35	0.19	0.29
IRIS immigrant share	0.08	0.14	0.07	0.12
IRIS unemployment rate	0.12	0.14	0.11	0.13
IRIS share of co-ethnics	.	0.03	.	0.02
Collected in 2004			0.19	0.19
Collected in 2005			0.20	0.21
Collected in 2006			0.20	0.20
Collected in 2007			0.20	0.21
Collected in 2008			0.20	0.20

Source: EDP 1990-2008 (INSEE). Table shows means.

Table 6.3 – *OLS Regressions Models 1, 2 and 3 (Specifications a and b) in Section 3.1*

	M1a	M2a	M3a	M1b	M2b	M3b
	Immigrant share	Unemployment rate	Co-ethnic share	Immigrant share	Unemployment rate	Co-ethnic share
<i>Ref: Majority</i>			<i>Ref: Europe</i>			<i>Ref: Europe</i>
Europe	0.010*** (0.001)	0.003* (0.001)		0.003*** (0.001)	-0.001 (0.001)	
Non-Europe	0.031*** (0.001)	0.013*** (0.001)	0.001 (0.001)	0.017*** (0.001)	0.002† (0.001)	0.002* (0.001)
Other	0.013*** (0.003)	0.002 (0.003)		0.004 † (0.003)	-0.003 (0.003)	
Majority#1999	0.003*** (0.000)	0.031*** (0.001)		0.005*** (0.000)	0.033*** (0.000)	
Majority#2008	0.007*** (0.001)	0.011*** (0.001)		0.012*** (0.001)	0.016*** (0.001)	
Europe#1999	-0.001 (0.001)	0.031*** (0.001)	-0.003*** (0.001)	0.002 (0.001)	0.033*** (0.001)	-0.004*** (0.001)
Europe#2008	0.002 (0.001)	0.011*** (0.002)	-0.004*** (0.001)	0.009*** (0.001)	0.016*** (0.001)	-0.005*** (0.001)
Non-Europe#1999	0.002 (0.002)	0.049*** (0.002)	0.005*** (0.001)	0.001 (0.001)	0.051*** (0.002)	0.000 (0.001)
Non-Europe#2008	0.012*** (0.002)	0.026*** (0.002)	0.004** (0.001)	0.018*** (0.001)	0.030*** (0.002)	0.004** (0.001)
Other#1999	0.007 (0.004)	0.041*** (0.005)		0.009* (0.003)	0.042*** (0.004)	

Other#2008	0.023*** (0.004)	0.028*** (0.005)		0.027*** (0.003)	0.031*** (0.004)	
<i>Generation/Ref: G2</i>						
G1 immigrant	0.002* (0.001)	-0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	-0.001 (0.001)
G1.5 immigrant	0.004*** (0.001)	-0.000 (0.001)	0.003*** (0.001)	0.004*** (0.001)	0.002† (0.001)	0.004*** (0.001)
G1 majority	0.001** (0.000)	0.001† (0.000)		0.000 (0.000)	0.000 (0.000)	
<i>Proxy for length of stay/Ref: <1968</i>						
1968-1975	0.001 (0.000)	0.000 (0.000)	0.001 (0.001)	0.000 (0.000)	0.000 (0.000)	0.001 (0.001)
1975-1982	0.009*** (0.001)	0.004*** (0.001)	0.002* (0.001)	0.006*** (0.001)	0.003*** (0.001)	0.003* (0.001)
1982-1990	0.007*** (0.001)	0.003* (0.001)	0.001 (0.001)	0.007*** (0.001)	0.003** (0.001)	0.002† (0.001)
<i>Education/No degree</i>						
Professional certificate	-0.003*** (0.000)	-0.004*** (0.000)	-0.002** (0.001)	-0.002*** (0.000)	-0.003*** (0.000)	-0.003*** (0.001)
Bac	-0.004*** (0.000)	-0.007*** (0.001)	-0.003*** (0.001)	-0.003*** (0.000)	-0.005*** (0.000)	-0.003** (0.001)
University	-0.004*** (0.000)	-0.008*** (0.001)	-0.005*** (0.001)	-0.004*** (0.000)	-0.006*** (0.000)	-0.004*** (0.001)
<i>Occupation/Ref: Blue collar</i>						
Other	-0.005*** (0.001)	-0.007*** (0.001)	0.001 (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	0.002 (0.001)
Managers	-0.006*** (0.001)	-0.007*** (0.001)	-0.005*** (0.001)	-0.004*** (0.001)	-0.003*** (0.001)	-0.004** (0.001)
Intermediary professions	-0.005*** (0.001)	-0.005*** (0.001)	-0.004*** (0.001)	-0.003*** (0.000)	-0.003*** (0.001)	-0.002* (0.001)
White collar	-0.003*** (0.001)	-0.005*** (0.001)	-0.003** (0.001)	-0.002*** (0.000)	-0.003*** (0.001)	-0.002* (0.001)
Unemployed (never worked)	0.007** (0.002)	0.022*** (0.002)	0.005* (0.002)	0.007*** (0.002)	0.016*** (0.002)	0.006* (0.002)
Students	-0.005*** (0.001)	-0.007*** (0.001)	-0.000 (0.002)	-0.003*** (0.001)	-0.005*** (0.001)	0.000 (0.002)
Inactive	0.000 (0.001)	0.004*** (0.001)	-0.002 (0.001)	0.000 (0.001)	0.003*** (0.001)	-0.001 (0.001)
Unemployed	0.000 (0.001)	0.009*** (0.001)	-0.002† (0.001)	0.000 (0.001)	0.007*** (0.001)	-0.002 (0.001)
<i>Marital status/Ref: Single</i>						
Married to immigrant	0.009*** (0.001)	0.003*** (0.001)	0.007*** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.006*** (0.001)
Married to French	-0.004*** (0.000)	-0.006*** (0.001)	0.001 (0.001)	-0.001*** (0.000)	-0.003*** (0.000)	0.002† (0.001)
Divorced	0.001 (0.001)	0.001 (0.002)	0.006* (0.002)	0.001 (0.001)	0.002 (0.001)	0.007** (0.002)
Widowed	-0.001 (0.001)	-0.001† (0.001)	0.002 (0.001)	0.000 (0.001)	-0.000 (0.001)	0.003† (0.001)
Number of children	-0.000 (0.000)	0.001*** (0.000)	0.000 (0.000)	0.000* (0.000)	0.001*** (0.000)	-0.000 (0.000)
Men	-0.001 (0.001)	0.000 (0.001)	-0.003** (0.001)	-0.000 (0.001)	0.001† (0.001)	-0.002* (0.001)
Age	-0.000** (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Age-squared	0.000*** (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000† (0.000)	-0.000 (0.000)
<i>Housing tenure/Ref: Renter</i>						
Homeowner	-0.008*** (0.000)	-0.011*** (0.000)	0.000 (0.001)	-0.001** (0.000)	-0.001*** (0.000)	0.000 (0.001)
Public housing	0.024***	0.035***	0.005***	0.019***	0.030***	0.005***

	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)
<i>Household position/Ref: Father</i>						
Mother	-0.001	-0.000	-0.003*	-0.001	0.001	-0.002†
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Child	0.002*	0.003**	0.005***	0.002**	0.002**	0.003*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Other	0.003***	0.004***	0.001	0.001*	0.001*	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
<i>EDP collection date/Ref: 2004</i>						
2005	0.003***	0.000	-0.000	0.000	0.000	-0.001
	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
2006	0.001**	0.001	-0.001	-0.000	0.000	-0.001
	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
2007	0.002***	-0.000	-0.001	0.000	-0.000	-0.002
	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
2008	0.001**	-0.004***	-0.001	0.000	-0.001*	-0.000
	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
<i>City size/Ref: <100,000</i>						
>100,000	0.009***	0.008***	-0.000			
	(0.000)	(0.000)	(0.001)			
Paris region	0.020***	-0.010***	0.004†			
	(0.001)	(0.001)	(0.002)			
Department control	Yes	Yes	Yes	No	No	No
Constant	0.051***	0.145***	0.026***	0.088***	0.121***	0.018***
	(0.003)	(0.003)	(0.005)	(0.003)	(0.003)	(0.005)
Observations	135,841	135,841	17,810	135,174	135,174	17,731
R-squared	0.416	0.276	0.094	0.610	0.469	0.314

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.4 – OLS Regressions Models 1, 2 and 3 (Specification c) in Section 3.1

	M1c	M2c	M3c	
	Immigrant share	Unemployment rate	Co-ethnic share	
Majority#1999	0.004*** (0.001)	0.041*** (0.001)	Europe#1999	-0.004* (0.002)
Majority#1999	0.009*** (0.002)	0.029*** (0.002)	Europe#2008	-0.006† (0.003)
Europe#1999.year	-0.004*** (0.001)	0.000 (0.001)		
Europe#2008.year	-0.005*** (0.001)	-0.000 (0.001)		
Non-Europe#1999.year	0.000 (0.001)	0.019*** (0.002)		0.004*** (0.001)
Non-Europe#2008.year	0.005*** (0.001)	0.014*** (0.002)		0.008*** (0.001)
Other#1999.year	0.004 (0.003)	0.009* (0.004)		
Other#2008.year	0.017*** (0.003)	0.017*** (0.004)		
<i>Education/Ref: No degree</i>				
Professional certificate	-0.000 (0.001)	-0.001 (0.001)		-0.001 (0.001)
Bac	0.000 (0.001)	0.001 (0.001)		-0.001 (0.001)
University	0.001 (0.001)	0.001 (0.001)		-0.002 (0.001)
<i>Occupation/Ref: Blue collar</i>				
Other	-0.002* (0.001)	-0.002 (0.001)		0.002 (0.002)
Managers	-0.001 (0.001)	0.000 (0.001)		-0.000 (0.002)
Intermediary professions	-0.002** (0.001)	-0.001 (0.001)		-0.002* (0.001)
White collar	-0.001* (0.001)	-0.001 (0.001)		-0.002* (0.001)
Unemployed (never worked)	0.000 (0.002)	0.004 (0.003)		-0.000 (0.002)
Students	-0.004** (0.001)	-0.004** (0.001)		0.001 (0.002)
Inactive	0.001 (0.001)	0.002* (0.001)		-0.000 (0.001)
Unemployed	-0.000 (0.001)	0.005*** (0.001)		-0.001 (0.001)
<i>Marital status/Ref: Married to French</i>				
Single	0.002** (0.001)	0.003*** (0.001)		
Married to immigrant	0.003* (0.001)	0.004** (0.001)		0.001 (0.001)
Widowed	0.001 (0.002)	0.005* (0.002)		0.004 (0.003)
Divorced	0.003*** (0.001)	0.003*** (0.001)		0.000 (0.002)
Number of children	-0.001** (0.000)	-0.001* (0.000)		0.001† (0.000)
Age	-0.001*** (0.000)	-0.002*** (0.000)		-0.000 (0.000)
Age-squared	0.000*** (0.000)	0.000*** (0.000)		0.000 (0.000)
<i>Housing Tenure/Ref: Renter</i>				

Homeowner	-0.006*** (0.000)	-0.007*** (0.001)	-0.000 (0.001)
Public housing	0.017*** (0.001)	0.026*** (0.001)	0.006*** (0.001)
<i>Household position/Ref: Father</i>			
Mother	-0.001 (0.001)	0.000 (0.001)	-0.001 (0.002)
Child	0.002* (0.001)	0.001 (0.001)	0.004* (0.002)
Other	0.003*** (0.001)	0.002† (0.001)	-0.000 (0.001)
<i>City size/Ref: <100,000 inhabitants</i>			
>100,000 inhabitants	0.017*** (0.001)	0.013*** (0.001)	0.006*** (0.002)
Paris region	0.028*** (0.002)	-0.000 (0.002)	0.002 (0.003)
Department of residence	Yes	Yes	Yes
Constant	0.055*** (0.005)	0.181*** (0.006)	0.017† (0.009)
Individual fixed effects	Yes	Yes	Yes
Observations	135,841	135,841	17,810
R-squared	0.134	0.128	0.039
Number of id	45,696	45,696	6,014

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.5 – *Descriptive Statistics for Sections 3.3 and 3.4*

	French majority	Immigrants
Women	0.51	0.51
18-25	0.24	0.25
26-35	0.26	0.33
36-45	0.34	0.30
46-50	0.16	0.13
10th	0.06	0.10
10th-25th	0.11	0.18
25th-50th	0.17	0.21
50th-75th	0.27	0.21
75th-90th	0.19	0.11
>90th	0.13	0.08
Unreported	0.07	0.10
No education	0.09	0.18
No secondary	0.08	0.12
Professional certificate	0.23	0.18
Vocational bac	0.12	0.10
General bac	0.10	0.11
2 years university	0.14	0.10
> 2 years university	0.25	0.20
Unemployed	0.15	0.20
Single with no children	0.38	0.37
Single with children	0.07	0.07
Couple with no children	0.16	0.13
Couple with one child	0.14	0.14
Couple with two children	0.17	0.16
Couple with three or more children	0.07	0.13
Homeowner	0.47	0.32
Renter	0.34	0.32
Public housing	0.19	0.36
Living with parents	0.17	0.22
10,000-19,999	0.07	0.03
20,000-49,999	0.10	0.08
50,000-99,999	0.11	0.08
100,000-199,999	0.10	0.06
+200,000	0.61	0.74
Top decile of <i>IRIS</i> immigrant share	0.20	0.50
Top decile of <i>IRIS</i> low income share	0.10	0.26

Source: TeO 2008 (INED). Table shows means.

Table 6.6 – *Bivariate Probit Model 4 Predicting Residence in Low Income and High Share Immigrant Neighborhoods Including Interactions*

	y1		y2	
	High immigrant share		Low income	
<i>Ref: Italy/Spain</i>				
Portugal	-0.341	(0.358)	-0.472	(0.437)
Other EU	-0.408	(0.341)	0.159	(0.401)
Asia	0.326	(0.314)	0.438	(0.376)
Algeria	0.116	(0.281)	0.593+	(0.348)
Morocco/Tunisia	-0.020	(0.281)	0.422	(0.348)
Sub-Saharan Africa	0.190	(0.277)	0.400	(0.344)
Turkey	0.222	(0.289)	0.723*	(0.354)
Other	0.317	(0.288)	0.438	(0.354)
<i>Interaction Origin#Income</i>				
Italy/Spain#10th-25th	-0.178	(0.238)	-0.575*	(0.251)
Italy/Spain#25th-50th	-0.277	(0.229)	-0.515*	(0.239)
Italy/Spain#50th-75th	-0.174	(0.223)	-0.702**	(0.235)
Italy/Spain#75th-90th	-0.138	(0.229)	-0.852***	(0.253)
Italy/Spain#>90th	0.058	(0.237)	-0.788**	(0.270)
Italy/Spain#Unreported	-0.213	(0.249)	-0.985***	(0.285)
Portugal#10th-25th	0.077	(0.259)	0.190	(0.284)
Portugal#25th-50th	0.098	(0.235)	-0.038	(0.264)
Portugal#50th-75th	0.138	(0.233)	-0.289	(0.265)
Portugal#75th-90th	0.298	(0.242)	-0.150	(0.281)
Portugal#>90th	0.665*	(0.270)	0.060	(0.316)
Portugal#Unreported	0.160	(0.257)	-0.313	(0.300)
Other EU#10th-25th	0.200	(0.246)	-0.135	(0.253)
Other EU#25th-50th	0.033	(0.238)	-0.393	(0.247)
Other EU#50th-75th	-0.068	(0.230)	-0.429+	(0.236)
Other EU#75th-90th	0.030	(0.234)	-0.522*	(0.250)
Other EU#>90th	0.154	(0.234)	-0.730**	(0.268)

Other EU#Unreported	-0.048	(0.263)	-0.644*	(0.298)
Asia#10th-25th	-0.185	(0.188)	-0.270	(0.195)
Asia#25th-50th	-0.351*	(0.173)	-0.536**	(0.180)
Asia#50th-75th	-0.317+	(0.179)	-0.793***	(0.200)
Asia#75th-90th	-0.122	(0.190)	-0.583**	(0.212)
Asia#>90th	-0.048	(0.202)	-0.820**	(0.255)
Asia#Unreported	0.013	(0.188)	-0.696***	(0.209)
Algeria#10th-25th	-0.024	(0.102)	-0.310**	(0.103)
Algeria#25th-50th	0.055	(0.103)	-0.355***	(0.105)
Algeria#50th-75th	-0.064	(0.107)	-0.590***	(0.111)
Algeria#75th-90th	-0.080	(0.135)	-0.838***	(0.155)
Algeria#>90th	0.087	(0.177)	-0.651**	(0.202)
Algeria#Unreported	0.052	(0.129)	-0.492***	(0.133)
Morocco/Tunisia#10th-25th	-0.008	(0.108)	-0.123	(0.109)
Morocco/Tunisia#25th-50th	-0.037	(0.106)	-0.077	(0.107)
Morocco/Tunisia#50th-75th	0.049	(0.115)	-0.371**	(0.120)
Morocco/Tunisia#75th-90th	0.018	(0.143)	-0.450**	(0.161)
Morocco/Tunisia#>90th	0.136	(0.162)	-0.524**	(0.201)
Morocco/Tunisia#Unreported	-0.021	(0.122)	-0.385**	(0.125)
Sub-Saharan Africa#10th-25th	-0.034	(0.105)	-0.064	(0.100)
Sub-Saharan Africa#25th-50th	-0.052	(0.106)	-0.174+	(0.102)
Sub-Saharan Africa#50th-75th	-0.042	(0.111)	-0.408***	(0.110)
Sub-Saharan Africa#75th-90th	-0.188	(0.144)	-0.640***	(0.160)
Sub-Saharan Africa#>90th	-0.048	(0.167)	-0.620**	(0.203)
Sub-Saharan Africa#Unreported	-0.036	(0.118)	-0.456***	(0.113)
Turkey#10th-25th	0.046	(0.132)	-0.097	(0.131)
Turkey#25th-50th	0.068	(0.131)	-0.199	(0.132)
Turkey#50th-75th	0.052	(0.157)	-0.392*	(0.159)
Turkey#75th-90th	-0.055	(0.247)	-0.344	(0.260)
Turkey#>90th	-0.098	(0.257)	-0.751*	(0.302)
Turkey#Unreported	0.067	(0.161)	-0.432**	(0.165)
Others#10th-25th	-0.179	(0.144)	-0.149	(0.145)
Others#25th-50th	-0.208	(0.139)	-0.199	(0.142)
Others#50th-75th	-0.300*	(0.142)	-0.559***	(0.152)
Others#75th-90th	-0.387*	(0.155)	-0.801***	(0.187)
Others#>90th	-0.119	(0.151)	-0.977***	(0.200)
Others#Unreported	-0.327*	(0.153)	-0.788***	(0.172)
<i>Interaction Origin#Generation</i>				
Italy/Spain#G1.5	-0.386+	(0.214)	0.436	(0.299)
Italy/Spain#G2	-0.526**	(0.168)	0.147	(0.263)
Italy/Spain#G2.5	-0.628***	(0.162)	0.158	(0.257)
Portugal#G1.5	-0.105	(0.134)	0.134	(0.184)
Portugal#G2	-0.366**	(0.122)	0.122	(0.168)
Portugal#G2.5	-0.702***	(0.147)	0.005	(0.191)
Other EU#G1.5	-0.319	(0.213)	-0.070	(0.273)
Other EU#G2	-0.053	(0.190)	-0.074	(0.236)
Other EU#G2.5	-0.436***	(0.105)	-0.071	(0.131)
Asia#G1.5	-0.222+	(0.125)	-0.185	(0.145)
Asia#G2	-0.324**	(0.124)	-0.111	(0.139)
Asia#G2.5	-0.847***	(0.143)	-0.638***	(0.187)
Algeria#G1.5	-0.232*	(0.108)	-0.022	(0.112)
Algeria#G2	-0.418***	(0.082)	-0.072	(0.085)
Algeria#G2.5	-0.680***	(0.097)	-0.231*	(0.102)
Morocco/Tunisia#G1.5	-0.091	(0.096)	0.019	(0.100)
Morocco/Tunisia#G2	-0.153+	(0.079)	-0.082	(0.082)
Morocco/Tunisia#G2.5	-0.467***	(0.105)	-0.508***	(0.120)
Sub-Saharan Africa#G1.5	-0.203*	(0.095)	-0.218*	(0.097)
Sub-Saharan Africa#G2	-0.038	(0.079)	-0.111	(0.078)
Sub-Saharan Africa#G2.5	-0.673***	(0.106)	-0.490***	(0.120)
Turkey#G1.5	0.040	(0.106)	-0.241*	(0.107)
Turkey#G2	-0.368***	(0.099)	-0.367***	(0.101)

Other#G1.5	-0.234*	(0.106)	-0.272*	(0.124)
Other#G2	-0.140	(0.104)	-0.034	(0.116)
Other#G2.5	-0.619***	(0.098)	-0.414***	(0.123)
<i>Gender/Ref: Men</i>				
Women	0.063*	(0.025)	-0.035	(0.028)
<i>Age/Ref: 18-25</i>				
26-35	0.063	(0.041)	0.049	(0.044)
36-45	-0.007	(0.047)	-0.030	(0.051)
46+	0.021	(0.055)	0.013	(0.061)
<i>Education/Ref: No education</i>				
Primary school	-0.072	(0.045)	-0.189***	(0.046)
Professional certificate	-0.154***	(0.041)	-0.195***	(0.044)
Vocational bac	-0.139**	(0.049)	-0.168**	(0.052)
General bac	-0.113*	(0.048)	-0.193***	(0.050)
2 years university	-0.151**	(0.049)	-0.220***	(0.054)
>2 years university	-0.224***	(0.044)	-0.370***	(0.049)
Unemployed	-0.031	(0.032)	0.003	(0.034)
Living with parents	0.197***	(0.047)	0.217***	(0.051)
<i>Family status/Ref: Single no children</i>				
Single/one child	-0.142*	(0.059)	-0.086	(0.064)
Married/no children	-0.154**	(0.048)	-0.051	(0.056)
Married/one child	-0.153**	(0.047)	-0.061	(0.053)
Married/two children	-0.108*	(0.047)	-0.143**	(0.053)
Married/three or more children	-0.051	(0.051)	-0.040	(0.055)
<i>Housing tenure/Ref: Private renter</i>				
Homeowner	-0.108**	(0.034)	0.038	(0.040)
Public housing	0.461***	(0.033)	0.801***	(0.035)
<i>City size/Ref: 10,000-19,999</i>				
20,000-49,999	0.510***	(0.095)	-0.119	(0.103)
50,000-99,999	0.077	(0.095)	0.104	(0.101)
100,000-199,999	-0.123	(0.098)	-0.062	(0.105)
>200,000	0.662***	(0.087)	0.025	(0.093)
Constant	-0.371	(0.279)	-0.762*	(0.347)
Rho	0.768***	(0.021)		
Observations	12,220			

Source: TeO 2008 (INED/INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Appendix D

Table 6.7 – Descriptive Statistics for Chapter 4

	Full Sample		Transition Sample	
	French majority	Immigrants	French majority	Immigrants
Other EU	.	0.15	.	0.16
Spain	.	0.08	.	0.11
Portugal	.	0.12	.	0.13
Italy	.	0.14	.	0.18
Algeria	.	0.17	.	0.16
Morocco	.	0.07	.	0.06
Tunisia	.	0.06	.	0.06
Asia	.	0.04	.	0.04
Turkey	.	0.04	.	0.03
Sub-Saharan Africa	.	0.06	.	0.04
Other	.	0.08	.	0.06
G1	0.65	0.57	0.62	0.54
G1.5	.	0.10	.	0.10
G2	0.35	0.33	0.38	0.36
Before 1968	0.58	0.29	0.76	0.42
1968-1975	0.12	0.16	0.15	0.22
1975-1982	0.07	0.15	0.06	0.16
1982-1990	0.05	0.16	0.02	0.13
1990-1999	0.01	0.11	0.01	0.07
1999-2008	0.17	0.12	.	.
Men	0.47	0.50	0.45	0.48
Age	48	43	53	50
Single	0.33	0.35	0.22	0.23
Married to immigrant	0.02	0.30	0.03	0.32
Married to French	0.50	0.24	0.57	0.31
Widowed	0.09	0.06	0.10	0.08
Divorced	0.07	0.05	0.09	0.06
Number of children	0.60	0.65	0.88	1
Father	0.32	0.31	0.35	0.36
Mother	0.35	0.33	0.40	0.39
Child	0.11	0.18	0.03	0.07
Other	0.22	0.18	0.22	0.18
No degree	0.41	0.52	0.40	0.49
Professional certificate	0.23	0.18	0.24	0.21
Bac	0.16	0.13	0.13	0.11
University	0.21	0.17	0.23	0.18
Other professions	0.06	0.05	0.06	0.06
Managers	0.11	0.06	0.13	0.08
Intermediary professions	0.18	0.10	0.20	0.13
White collar	0.24	0.18	0.26	0.22
Blue collar	0.17	0.23	0.17	0.25
Unemployed (never worked)	0.00	0.02	0.00	0.01
Students	0.07	0.11	0.00	0.01
Inactive	0.10	0.15	0.11	0.15
Unemployed	0.06	0.10	0.05	0.10
Owner	0.58	0.40	0.63	0.50
Renter	0.25	0.30	0.21	0.23
Public housing	0.17	0.30	0.16	0.27
<100,000	0.35	0.24	0.33	0.25
>100,000	0.44	0.42	0.48	0.45
Paris region	0.20	0.35	0.19	0.30
IRIS immigrant share	0.08	0.14	0.08	0.13
IRIS unemployment rate	0.12	0.14	0.13	0.15
IRIS share of co-ethnics	.	0.03	.	0.02
Commune share of homeowners	0.51	0.45	0.52	0.49
Commune share of public housing	0.19	0.23	0.20	0.22
Upward spatial mobility Immigrant share				0.22
Unemployment rate				0.26
Co-ethnic share				0.30

Source: EDP 1990-2008 (INSEE). Table shows means. Immigrant origin shows proportion out of the total share of immigrants.

Table 6.8 – *Neighborhood Outcomes of Movers According to Quartiles of the Immigrant Share Before and After Moving*

Origin Quartiles in t	Destination Quartiles in $t+1$				Total
	<25th	25th-50th	50-75th	>75th	
<i>Majority</i>					
< 25th	11,269	4,761	2,468	1,570	20,068
25th-50th	5,076	7,169	5,419	2,871	20,535
50th-75th	3,045	5,601	7,234	5,092	20,972
>75th	2,245	3,818	5,600	8,638	20,301
Total	21,635	21,349	20,721	18,171	81,876
<i>Other EU</i>					
< 25th	141	80	51	32	304
25th-50th	98	160	133	76	467
50th-75th	56	139	220	161	576
>75th	54	98	189	397	738
Total	349	477	593	666	2,085
<i>Spain</i>					
< 25th	58	50	24	23	155
25th-50th	49	158	121	43	371
50th-75th	38	137	176	115	466
>75th	28	101	172	252	553
Total	173	446	493	433	1,545
<i>Portugal</i>					
< 25th	76	59	32	25	192
25th-50th	63	140	141	65	409
50th-75th	61	156	275	210	702
>75th	43	118	257	556	974
Total	243	473	705	856	2,277
<i>Italy</i>					
< 25th	87	58	51	31	227
25th-50th	59	190	163	73	485
50th-75th	70	208	284	177	739
>75th	58	119	248	412	837
Total	274	575	746	693	2,288
<i>Algeria</i>					
< 25th	49	36	43	24	152
25th-50th	53	106	112	115	386
50th-75th	46	144	229	303	722
>75th	54	152	334	1,044	1,584
Total	202	438	718	1,486	2,844
<i>Morocco</i>					
< 25th	26	19	10	12	67
25th-50th	23	43	46	39	151
50th-75th	13	54	88	109	264
>75th	24	68	141	457	690
Total	86	184	285	617	1,172
<i>Tunisia</i>					
< 25th	13	10	7	12	42
25th-50th	16	29	39	19	103
50th-75th	12	35	91	89	227
>75th	7	33	99	366	505
Total	48	107	236	486	877
<i>Asia</i>					
< 25th	13	4	6	15	38
25th-50th	15	22	17	23	77
50th-75th	6	23	29	63	121
>75th	20	40	79	259	398
Total	54	89	131	360	634
<i>Turkey</i>					
< 25th	4	6	4	11	25
25th-50th	5	12	11	22	50
50th-75th	10	16	46	57	129
>75th	10	31	77	266	384
Total	29	65	138	356	588
<i>Sub-Saharan Africa</i>					
< 25th	21	12	10	17	60
25th-50th	12	18	28	29	87
50th-75th	10	34	46	90	180
>75th	13	34	73	326	446
Total	56	98	157	462	773

Source: EDP 1990-2008 (INSEE). Table shows frequencies.

Table 6.9 – Neighborhood Outcomes of Movers According to Quartiles of the Unemployment Rate Before and After Moving

Origin Quartiles in t	Destination Quartiles in $t+1$				Total
	<25th	25th-50th	50-75th	>75th	
<i>Majority</i>					
<25th	6,972	5,991	5,057	3,276	21,296
25th-50th	5,621	5,469	5,094	3,927	20,111
50th-75th	4,424	5,276	5,404	4,951	20,055
>75th	3,254	4,311	5,567	7,282	20,414
Total	20,271	21,047	21,122	19,436	81,876
<i>Other EU</i>					
<25th	208	160	110	69	547
25th-50th	132	132	134	93	491
50th-75th	99	115	119	164	497
>75th	76	96	144	234	550
Total	515	503	507	560	2,085
<i>Spain</i>					
<25th	94	87	67	61	309
25th-50th	76	91	91	64	322
50th-75th	99	105	122	131	457
>75th	73	98	121	165	457
Total	342	381	401	421	1,545
<i>Portugal</i>					
<25th	194	166	134	66	560
25th-50th	169	163	135	108	575
50th-75th	157	164	129	128	578
>75th	109	121	139	195	564
Total	629	614	537	497	2,277
<i>Italy</i>					
<25th	181	139	114	85	519
25th-50th	156	158	149	108	571
50th-75th	119	154	159	148	580
>75th	79	115	186	238	618
Total	535	566	608	579	2,288
<i>Algeria</i>					
<25th	73	98	108	103	382
25th-50th	61	113	135	173	482
50th-75th	94	118	150	286	648
>75th	118	148	322	744	1,332
Total	346	477	715	1,306	2,844
<i>Morocco</i>					
<25th	39	46	46	33	164
25th-50th	39	41	54	62	196
50th-75th	48	54	75	83	260
>75th	63	82	133	274	552
Total	189	223	308	452	1,172
<i>Tunisia</i>					
<25th	42	31	46	55	174
25th-50th	35	36	42	72	185
50th-75th	17	45	55	82	199
>75th	33	55	78	153	319
Total	127	167	221	362	877
<i>Asia</i>					
<25th	40	30	33	37	140
25th-50th	33	32	29	36	130
50th-75th	24	22	49	41	136
>75th	37	48	56	87	228
Total	134	132	167	201	634
<i>Turkey</i>					
<25th	13	18	15	19	65
25th-50th	8	23	24	34	89
50th-75th	23	17	42	47	129
>75th	31	52	72	150	305
Total	75	110	153	250	588
<i>Sub-Saharan Africa</i>					
<25th	25	40	45	42	152
25th-50th	22	42	39	49	152
50th-75th	30	49	62	64	205
>75th	29	52	56	127	264
Total	106	183	202	282	773

Source: EDP 1990-2008 (INSEE). Table shows frequencies.

Table 6.10 – *Transitions in Housing Tenure Between t and $t+1$*

Origin Tenure t	Destination Tenure $t+1$			Total
	Homeowner	Renter	Public housing	
<i>Majority</i>				
Homeowner	104,045	5,890	1,716	111,651
Renter	18,697	26,339	6,429	51,465
Public housing	6,986	4,837	21,903	33,726
Total	129,728	37,066	30,048	196,842
<i>Other EU</i>				
Homeowner	2,814	187	48	3,049
Renter	511	1,016	230	1,757
Public housing	162	143	614	919
Total	3,487	1,346	892	5,725
<i>Spain</i>				
Homeowner	1,740	105	31	1,876
Renter	318	509	133	960
Public housing	165	103	490	758
Total	2,223	717	654	3,594
<i>Portugal</i>				
Homeowner	1,510	112	37	1,659
Renter	494	745	180	1,419
Public housing	300	135	701	1,136
Total	2,304	992	918	4,214
<i>Italy</i>				
Homeowner	3,601	193	53	3,847
Renter	539	755	187	1,481
Public housing	207	122	627	956
Total	4,347	1,070	867	6,284
<i>Algeria</i>				
Homeowner	891	80	71	1,042
Renter	297	576	410	1,283
Public housing	342	205	1,735	2,282
Total	1,530	861	2,216	4,607
<i>Morocco</i>				
Homeowner	326	32	26	384
Renter	154	222	129	505
Public housing	122	69	406	597
Total	602	323	561	1,486
<i>Tunisia</i>				
Homeowner	520	54	24	598
Renter	125	336	166	627
Public housing	96	80	526	702
Total	741	470	716	1,927
<i>Asia</i>				
Homeowner	475	34	18	527
Renter	121	108	47	276
Public housing	119	45	271	435
Total	715	187	336	1,238
<i>Turkey</i>				
Homeowner	165	18	15	198
Renter	96	113	105	314
Public housing	153	38	343	534
Total	414	169	463	1,046
<i>Sub-Saharan Africa</i>				
Homeowner	221	36	36	293
Renter	85	234	198	517
Public housing	66	69	354	489
Total	372	339	588	1,299

Source: EDP 1990-2008 (INSEE). The table shows frequencies.

Table 6.11 – *Logistic Regression Models 3, 4 and 5 Predicting Upward Spatial Mobility (Specification a)*

	Model 3 Immigrant share	Model 4 Unemployment rate	Model 5 Co-ethnic share
<i>Ref: Italy</i>			
Other EU	-0.004 (0.052)	0.001 (0.050)	0.063 (0.047)
Spain	0.057 (0.057)	0.102† (0.055)	0.118* (0.051)
Portugal	0.152** (0.058)	0.147** (0.054)	0.009 (0.054)
Algeria	-0.204*** (0.054)	-0.153** (0.052)	-0.156** (0.049)
Morocco	-0.383*** (0.076)	-0.143* (0.069)	-0.143* (0.067)
Tunisia	-0.033 (0.079)	-0.075 (0.071)	0.177** (0.064)
Asia	-0.019 (0.094)	0.077 (0.080)	0.243** (0.077)
Turkey	-0.331** (0.102)	-0.113 (0.089)	-0.060 (0.086)
Sub-Saharan Africa	-0.232* (0.093)	-0.071 (0.079)	-0.097 (0.078)
Other	-0.140† (0.081)	0.062 (0.068)	
<i>Generation/Ref: G1</i>			
G1.5	-0.053 (0.058)	-0.049 (0.053)	-0.009 (0.053)
G2	0.002 (0.051)	0.022 (0.048)	0.046 (0.047)
<i>Length of stay proxy/Ref: <1968</i>			
1968-1975	0.016 (0.043)	0.031 (0.040)	0.044 (0.039)
1975-1982	-0.078 (0.055)	-0.070 (0.050)	-0.042 (0.049)
1982-1990	0.035 (0.062)	0.096† (0.055)	0.091† (0.055)
1990-1999	-0.091 (0.081)	-0.036 (0.071)	-0.054 (0.073)
Men	-0.279*** (0.051)	-0.297*** (0.046)	-0.220*** (0.046)
Age	-0.143*** (0.007)	-0.135*** (0.007)	-0.132*** (0.007)
Age-squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
<i>Variables measured in t</i>			
<i>Education/Ref: No degree</i>			
Professional certificate	0.166*** (0.039)	0.190*** (0.036)	0.144*** (0.036)
Bac	0.403*** (0.049)	0.464*** (0.044)	0.416*** (0.045)
University	0.702*** (0.054)	0.710*** (0.047)	0.665*** (0.049)
<i>Occupation/Ref: Blue collar</i>			
Other	0.109 (0.073)	0.117† (0.067)	0.035 (0.067)
Manager	0.235** (0.076)	0.123† (0.067)	0.082 (0.070)
Intermediary professions	0.140* (0.076)	0.064 (0.067)	0.043 (0.070)

	(0.059)	(0.054)	(0.054)
White collar	0.160**	0.063	0.092*
	(0.050)	(0.045)	(0.045)
Unemployed (never worked)	-0.404***	-0.441***	-0.387***
	(0.115)	(0.109)	(0.104)
Students	-0.101	-0.140*	-0.094
	(0.068)	(0.062)	(0.062)
Inactive	-0.087	-0.155**	-0.114*
	(0.056)	(0.052)	(0.051)
Unemployed	0.035	-0.087	0.032
	(0.057)	(0.053)	(0.051)
<i>Marital status/Ref: Married to French</i>			
Single	0.219***	0.203***	0.239***
	(0.054)	(0.050)	(0.049)
Married to immigrant	-0.108*	-0.098*	-0.060
	(0.044)	(0.040)	(0.040)
Widowed/Divorced	0.219***	0.187**	0.279***
	(0.064)	(0.061)	(0.058)
Number of children	-0.056***	-0.060***	-0.050***
	(0.015)	(0.014)	(0.014)
<i>Housing Tenure/Ref: Renters</i>			
Homeowner	-1.053***	-0.978***	-1.046***
	(0.037)	(0.034)	(0.034)
Public housing	-0.425***	-0.484***	-0.403***
	(0.039)	(0.036)	(0.035)
<i>Household Position/Ref: Father</i>			
Mother	-0.459***	-0.437***	-0.402***
	(0.063)	(0.057)	(0.057)
Child	-0.497***	-0.441***	-0.378***
	(0.071)	(0.066)	(0.065)
Other	-0.198**	-0.187**	-0.117*
	(0.066)	(0.060)	(0.059)
IRIS immigrant share	-1.008***		
	(0.206)		
IRIS unemployment rate		-0.393*	
		(0.186)	
IRIS share of co-ethnics			-5.739***
			(0.484)
<i>City size/Ref: <100,000</i>			
>100,000	-0.007	0.028	0.014
	(0.042)	(0.042)	(0.040)
Paris region	0.879***	0.357***	0.475***
	(0.081)	(0.066)	(0.069)
<i>Period/Ref: 1990-1999</i>			
1990-2008 (2004)	-0.053	0.080	-0.041
	(0.063)	(0.058)	(0.058)
1990-2008 (2005)	-0.189**	0.003	-0.194***
	(0.060)	(0.054)	(0.054)
1990-2008 (2006)	-0.206***	-0.024	-0.230***
	(0.057)	(0.053)	(0.053)
1990-2008 (2007)	-0.221***	-0.085†	-0.277***
	(0.056)	(0.052)	(0.052)
1990-2008 (2008)	-0.422***	-0.248***	-0.422***
	(0.056)	(0.051)	(0.052)
Department control	Yes	Yes	Yes
Constant	-0.122	2.796***	2.544***
	(0.233)	(0.184)	(0.182)
Observations	33,344	35,095	34,499

Source: EDP 2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.12 – *Logistic Regression Models 3, 4 and 5 Predicting Upward Spatial Mobility (Specification b)*

	Model 3	Model 4	Model 5
	Immigrant share	Unemployment rate	Co-ethnic share
<i>Ref: Italy</i>			
Other EU	-0.046 (0.060)	-0.038 (0.057)	0.044 (0.053)
Spain	0.049 (0.064)	0.071 (0.062)	0.130* (0.058)
Portugal	0.077 (0.067)	0.088 (0.061)	-0.034 (0.061)
Algeria	-0.270*** (0.061)	-0.208*** (0.057)	-0.220*** (0.055)
Morocco	-0.464*** (0.084)	-0.182* (0.076)	-0.207** (0.073)
Tunisia	-0.207* (0.085)	-0.156* (0.077)	0.104 (0.070)
Asia	-0.012 (0.102)	0.064 (0.088)	0.217** (0.084)
Turkey	-0.453*** (0.114)	-0.174† (0.098)	-0.120 (0.094)
Sub-Saharan Africa	-0.325** (0.101)	-0.159† (0.086)	-0.180* (0.084)
Other	-0.245** (0.089)	0.011 (0.074)	
<i>Generation/Ref: G1</i>			
G1.5	0.003 (0.063)	-0.023 (0.058)	0.013 (0.058)
G2	0.057 (0.056)	0.040 (0.053)	0.064 (0.051)
<i>Length of stay proxy/Ref: <1968</i>			
1968-1975	-0.013 (0.047)	0.020 (0.044)	0.023 (0.043)
1975-1982	-0.161** (0.060)	-0.106† (0.055)	-0.081 (0.054)
1982-1990	-0.007 (0.067)	0.074 (0.060)	0.072 (0.060)
1990-1999	-0.167† (0.089)	-0.097 (0.078)	-0.140† (0.080)
Men	-0.232*** (0.056)	-0.279*** (0.051)	-0.165** (0.050)
Age	-0.149*** (0.008)	-0.132*** (0.008)	-0.135*** (0.007)
Age-squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
<i>Variables measured in t</i>			
<i>Education/Ref: No degree</i>			
Professional certificate	0.255*** (0.043)	0.256*** (0.040)	0.210*** (0.040)
Bac	0.400*** (0.054)	0.439*** (0.049)	0.409*** (0.049)
University	0.721*** (0.059)	0.707*** (0.052)	0.671*** (0.054)
<i>Occupation/Ref: Blue collar</i>			
Other	0.030 (0.082)	0.050 (0.074)	0.026 (0.074)
Managers	0.176* (0.083)	0.104 (0.073)	0.073 (0.076)
Intermediary professions	0.109†	0.051	0.037

	(0.066)	(0.059)	(0.060)
White collar	0.138*	0.044	0.087†
	(0.055)	(0.050)	(0.049)
Unemployed (never worked)	-0.448***	-0.472***	-0.411***
	(0.125)	(0.119)	(0.112)
Students	-0.151*	-0.191**	-0.149*
	(0.074)	(0.068)	(0.068)
Inactive	-0.058	-0.131*	-0.091
	(0.062)	(0.057)	(0.056)
Unemployed	0.013	-0.095	0.037
	(0.062)	(0.058)	(0.056)
<i>Marital status/Ref: Married to French</i>			
Single	0.176**	0.197***	0.219***
	(0.059)	(0.055)	(0.054)
Married to immigrant	-0.153**	-0.123**	-0.085†
	(0.048)	(0.044)	(0.044)
Divorced/widowed	0.203**	0.186**	0.261***
	(0.070)	(0.066)	(0.063)
Number of children	-0.057***	-0.062***	-0.055***
	(0.017)	(0.016)	(0.015)
<i>Housing Tenure/Ref: Renters</i>			
Homeowner	-0.958***	-0.915***	-0.973***
	(0.043)	(0.039)	(0.039)
Public housing	-0.459***	-0.550***	-0.470***
	(0.044)	(0.041)	(0.039)
<i>Household Position/Ref: Father</i>			
Mother	-0.426***	-0.434***	-0.358***
	(0.069)	(0.063)	(0.062)
Child	-0.524***	-0.432***	-0.367***
	(0.078)	(0.072)	(0.071)
Other	-0.253***	-0.225***	-0.120†
	(0.072)	(0.065)	(0.064)
IRIS immigrant share	-0.567*		
	(0.252)		
IRIS unemployment rate		-0.360	
		(0.223)	
IRIS co-ethnic share			-5.420***
			(0.539)
<i>Period/Ref: 1990-1999</i>			
1999-2008 (2004)	0.119	0.218***	0.120†
	(0.072)	(0.066)	(0.065)
1999-2008 (2005)	-0.019	0.112†	-0.049
	(0.068)	(0.062)	(0.061)
1999-2008 (2006)	-0.037	0.108†	-0.102†
	(0.065)	(0.060)	(0.060)
1999-2008 (2007)	-0.074	0.030	-0.128*
	(0.064)	(0.058)	(0.058)
1999-2008 (2008)	-0.308***	-0.143*	-0.331***
	(0.064)	(0.058)	(0.058)
Municipality fixed effects	Yes	Yes	Yes
Constant	4.302***	3.733***	3.963***
	(0.229)	(0.221)	(0.213)
Observations	28,128	29,954	30,002

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.13 – *Logistic Regression Models 3, 4 and 5 Predicting Upward Spatial Mobility (Specification c)*

	Model 3	Model 4	Model 5
	Immigrant share	Unemployment rate	Co-ethnic share
<i>Education/Ref: No degree</i>			
Professional certificate	0.157* (0.077)	0.133† (0.073)	0.101 (0.067)
Bac	0.221* (0.101)	0.053 (0.090)	0.188* (0.083)
University	0.347** (0.121)	0.197† (0.104)	0.298** (0.098)
<i>Occupation/Ref: Blue collar</i>			
Other	-0.175 (0.125)	-0.072 (0.113)	-0.130 (0.105)
Managers	0.152 (0.132)	0.140 (0.114)	0.090 (0.107)
Intermediary professions	0.110 (0.096)	0.138 (0.086)	0.093 (0.081)
White collar	0.029 (0.085)	0.058 (0.077)	0.022 (0.071)
Unemployed (never worked)	-0.301 (0.217)	-0.223 (0.210)	-0.127 (0.181)
Students	-0.505*** (0.144)	-0.657*** (0.126)	-0.658*** (0.118)
Inactive	-0.018 (0.094)	-0.040 (0.087)	-0.026 (0.079)
Unemployed	-0.050 (0.092)	0.015 (0.085)	-0.017 (0.076)
<i>Marital status/Ref: Married to French</i>			
Single	0.078 (0.112)	0.111 (0.101)	0.113 (0.094)
Married to immigrant	-0.128 (0.085)	-0.165* (0.074)	-0.160* (0.069)
Divorced/Widowed	0.493*** (0.106)	0.412*** (0.098)	0.497*** (0.087)
Number of children	0.117* (0.052)	0.073 (0.046)	0.054 (0.042)
Age	-0.195*** (0.019)	-0.201*** (0.018)	-0.198*** (0.016)
Age-squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
<i>Housing Tenure/Ref: Renters</i>			
Homeowner	0.164* (0.070)	0.281*** (0.063)	0.205*** (0.059)
Public housing	-0.548*** (0.079)	-0.621*** (0.071)	-0.290*** (0.063)
<i>Household Position/Ref: Father</i>			
Mother	-0.390** (0.138)	-0.336** (0.122)	-0.333** (0.114)
Child	-4.507*** (0.152)	-4.393*** (0.133)	-4.404*** (0.126)
Other	-0.447*** (0.125)	-0.434*** (0.111)	-0.481*** (0.102)
<i>Year/Ref: 1990 1999</i>			
2008	-0.732*** (0.138)	-0.877*** (0.129)	-0.521*** (0.119)
	-1.978*** (0.243)	-1.887*** (0.227)	-1.647*** (0.209)
<i>City size/Ref: <100,000 >100,000</i>			
	-0.760*** (0.140)	-0.736*** (0.138)	-0.549*** (0.125)

Paris region	-1.477***	-0.971***	-0.799***
	(0.302)	(0.233)	(0.241)
Department of residence	Yes	Yes	Yes
Individual fixed effects	Yes	Yes	Yes
Observations	19,724	24,069	26,223
Number of id	8,401	10,222	11,128

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.14 – *Logistic Regression Models 6 Predicting Homeownership (Specification c)*

	Homeowner
<i>Education/Ref: No degree</i>	
Professional certificate	-0.011 (0.104)
Bac	-0.120 (0.142)
University	0.063 (0.165)
<i>Occupation/Ref: Blue collar</i>	
Other	0.271† (0.140)
Managers	0.169 (0.157)
Intermediary professions	0.167 (0.123)
White collar	0.174 (0.107)
Unemployed (never worked)	0.176 (0.360)
Students	0.904*** (0.265)
Inactive	0.322** (0.117)
Unemployed	0.099 (0.117)
<i>Marital status/Ref: Married to French</i>	
Single	-0.629*** (0.140)
Married to immigrant	-0.293** (0.097)
Divorced/Widowed	-1.244*** (0.112)
Number of children	0.108† (0.061)
Age	0.196*** (0.031)
Age-squared	-0.002*** (0.000)
<i>Household Position/Ref: Father</i>	
Mother	0.057 (0.181)
Other	-0.231 (0.142)
<i>Year/Ref:1990 1999</i>	
2008	0.802** (0.261)
	1.408** (0.460)
<i>Commune share of public housing</i>	1.352** (0.412)
<i>Commune share of homeowners</i>	4.025*** (0.357)
<i>IRIS immigrant share</i>	-0.151 (0.574)
<i>IRIS unemployment rate</i>	-3.465*** (0.506)
<i>IRIS co-ethnic share</i>	1.251 (1.054)
<i>City size/Ref: <100,000 >100,000</i>	0.076

	(0.153)
Paris region	0.155
	(0.292)
Department of residence	Yes
Individual fixed effects	Yes
Observations	12,882
Number of id	5,432

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

Appendix E

Table 6.15 – *Descriptive Statistics for Chapter 5*

	Full Sample		Child/Adult Transition Sample	
	French majority	Immigrants	French majority	Immigrants
Europe	.	33	.	46
Africa	.	50	.	41
Asia/Turkey	.	9	.	7
Other	.	8	.	5
<i>Parents' characteristics</i>				
Other	0.08	0.07	0.09	0.07
Managers	0.19	0.08	0.19	0.06
Intermediary professions	0.20	0.09	0.20	0.08
White collar	0.16	0.09	0.16	0.10
Blue collar	0.26	0.45	0.25	0.48
Unemployed (never worked)	0.00	0.01	0.00	0.01
Students	0.00	0.00	0.00	0.00
Not working	0.04	0.07	0.05	0.10
Unemployed	0.07	0.13	0.06	0.11
No degree	0.16	0.48	0.18	0.56
Professional certificate	0.49	0.32	0.52	0.30
Bac	0.23	0.14	0.17	0.10
University	0.11	0.05	0.13	0.04
<100,000	0.36	0.25	0.30	0.25
>100,000	0.44	0.40	0.50	0.46
Paris region	0.20	0.36	0.20	0.30
Homeowner	58	35	0.60	0.38
Renter	22	23	0.19	0.21
Public housing	21	42	0.21	0.41
IRIS immigrant share	0.08	0.15	0.08	0.13
IRIS unemployment rate	0.12	0.15	0.12	0.15
IRIS co-ethnic share	.	0.03	.	0.03

Source: EDP 1990-2008 (INSEE). Table shows means. Immigrant origin shows proportion out of the total share of immigrants.

Table 6.16 – *Descriptive Statistics for Child/Adult Transition Sample (Chapter 5)*

	French majority	Immigrants
Adult characteristics		
Women	0.51	0.52
Age	29	29
Other	0.02	0.03
Managers	0.11	0.07
Intermediary professions	0.20	0.16
White collar	0.23	0.22
Blue collar	0.16	0.19
Unemployed (never worked)	0.01	0.01
Students	0.12	0.09
Inactive	0.06	0.09
Unemployed	0.10	0.15
No degree	0.17	0.25
Professional certificate	0.23	0.27
Bac	0.23	0.21
University	0.37	0.28
Single	0.75	0.60
Married	0.24	0.38
Divorced	0.00	0.00
Widowed	0.01	0.02
No children	0.69	0.62
1 child	0.19	0.23
2 children	0.09	0.12
3 or more children	0.02	0.03
Homeowner	0.25	0.24
Renter	0.53	0.41
Public housing	0.22	0.34
<100,000	0.26	0.22
>100,000	0.51	0.46
Paris region	0.22	0.31
IRIS immigrant share	0.09	0.13
IRIS unemployment rate	0.14	0.15
IRIS co-ethnic share	.	0.02
1990-1999	0.68	0.59
1999-2008 (2004)	0.04	0.06
1999-2008 (2005)	0.05	0.07
1999-2008 (2006)	0.06	0.08
1999-2008 (2007)	0.07	0.10
1999-2008 (2008)	0.08	0.10
Parents' characteristics		
Parents' age	48	51
Farmers	0.01	0.00
Small business owners	0.08	0.07
Managers	0.19	0.06
Intermediary professions	0.20	0.08
White collar	0.16	0.10
Blue collar	0.25	0.48
Not working	0.05	0.11
Unemployed	0.06	0.11
No degree	0.18	0.56
No secondary school	0.25	0.17
Vocational degree	0.27	0.14
Bac	0.17	0.09
University	0.13	0.04
One parent household	0.23	0.17
Couple	0.77	0.83
One child	0.32	0.19
Two children	0.39	0.26
Three or more children	0.29	0.55
Homeowner	0.60	0.38
Renter	0.19	0.21
Public housing	0.21	0.40
<100,000	0.30	0.25
>100,000	0.50	0.46
Paris region	0.20	0.30
IRIS immigrant share	0.08	0.13
IRIS unemployment rate	0.12	0.15
IRIS co-ethnic share	.	0.03

Source: EDP 1990-2008 (INSEE). Table shows means. Immigrant origin shows proportion out of the total share of immigrants.

Table 6.17 – OLS Regression Models 1c, 2c and 3c Predicting the Neighborhood Immigrant Share, Unemployment Rate and Share of Co-ethnics in Adulthood

	Adult Immigrant share			Adult Unemployment rate			Adult Co-ethnic share		
	M1b	M1c	M2b	M2c	M3b	M3c	M3b	M3c	
Child neighborhood	0.325*** (0.005)	0.095*** (0.006)	0.210*** (0.005)	0.060*** (0.005)	0.273*** (0.009)	0.244*** (0.011)			
Immigrant	0.025*** (0.001)	0.014*** (0.001)	0.002* (0.001)	0.009*** (0.001)					
<i>Adult characteristics</i>									
<i>Occupation/Ref: Blue collar</i>									
Other	0.000 (0.003)	-0.006* (0.002)	-0.003 (0.003)	-0.005† (0.003)	0.003 (0.003)	0.003 (0.003)			
Managers	0.020*** (0.002)	0.001 (0.001)	-0.007*** (0.002)	0.000 (0.002)	0.001 (0.002)	-0.001 (0.002)			
Intermediary professions	0.009*** (0.001)	0.000 (0.001)	-0.003* (0.001)	0.000 (0.001)	0.001 (0.001)	0.000 (0.002)			
White collar	0.006*** (0.001)	-0.001 (0.001)	-0.003* (0.001)	-0.002 (0.001)	0.001 (0.001)	-0.001 (0.002)			
Unemployed (never worked)	0.004 (0.004)	0.009** (0.003)	0.032*** (0.004)	0.025*** (0.003)	0.010** (0.003)	0.011** (0.004)			
Students	0.011*** (0.002)	0.008*** (0.001)	0.008*** (0.002)	0.005** (0.002)	0.002 (0.002)	0.002 (0.002)			
Inactive	0.009*** (0.002)	0.009*** (0.002)	0.019*** (0.002)	0.015*** (0.002)	0.004* (0.002)	0.003† (0.002)			
Unemployed	0.008*** (0.001)	0.007*** (0.001)	0.020*** (0.001)	0.016*** (0.001)	0.004** (0.001)	0.004* (0.002)			
<i>Education/Ref: No degree</i>									
Professional certificate	-0.002† (0.001)	-0.003** (0.001)	-0.007*** (0.001)	-0.006*** (0.001)	-0.001 (0.001)	-0.002 (0.001)			
Bac	-0.004*** (0.001)	-0.005*** (0.001)	-0.011*** (0.001)	-0.011*** (0.001)	-0.004** (0.001)	-0.005** (0.001)			
University	-0.000 (0.001)	-0.005*** (0.001)	-0.011*** (0.001)	-0.010*** (0.001)	-0.005*** (0.001)	-0.006*** (0.002)			
Women	0.001 (0.001)	0.001 (0.001)	-0.000 (0.001)	0.000 (0.001)	0.001 (0.001)	0.001 (0.001)			

Age	-0.001** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001** (0.000)	-0.001* (0.000)
Age-squared	0.000* (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000† (0.000)	0.000* (0.000)
<i>Marital status/Ref: Single</i>						
Married	-0.000 (0.001)	0.001 (0.001)	-0.002† (0.001)	-0.003** (0.001)	0.006*** (0.001)	0.006*** (0.001)
Divorced	-0.010 (0.011)	-0.000 (0.010)	-0.008 (0.011)	-0.008 (0.011)	-0.000 (0.008)	0.002 (0.010)
Widowed	0.003 (0.003)	0.004 (0.003)	0.009** (0.003)	0.009** (0.003)	0.007* (0.003)	0.010** (0.003)
<i>Number of children/Ref: No children</i>						
1 child	-0.007*** (0.001)	-0.004*** (0.001)	-0.000 (0.001)	-0.003** (0.001)	-0.002† (0.001)	-0.001 (0.001)
2 children	-0.009*** (0.001)	-0.005*** (0.001)	0.000 (0.001)	-0.002 (0.001)	-0.002† (0.001)	-0.003† (0.002)
3 or more children	-0.010*** (0.002)	-0.002 (0.002)	0.010*** (0.002)	0.006* (0.002)	-0.001 (0.002)	-0.002 (0.003)
<i>Housing tenure/Ref: Renter</i>						
Homeowner	-0.006*** (0.001)	-0.007*** (0.001)	-0.009*** (0.001)	-0.008*** (0.001)	0.004*** (0.001)	0.003** (0.001)
Public housing	0.019*** (0.001)	0.018*** (0.001)	0.031*** (0.001)	0.033*** (0.001)	0.008*** (0.001)	0.010*** (0.001)
<i>Period/Ref: 1990-1999</i>						
1999-2008 (2004)	-0.003 (0.002)	0.004* (0.002)	-0.032*** (0.002)	-0.027*** (0.002)	0.000 (0.002)	0.002 (0.002)
1999-2008 (2005)	-0.000 (0.002)	0.007*** (0.002)	-0.029*** (0.002)	-0.025*** (0.002)	0.003† (0.002)	0.005* (0.002)
1999-2008 (2006)	0.000 (0.001)	0.008*** (0.001)	-0.029*** (0.002)	-0.024*** (0.002)	0.002 (0.002)	0.001 (0.002)
1999-2008 (2007)	-0.001 (0.001)	0.007*** (0.001)	-0.033*** (0.001)	-0.029*** (0.001)	0.002 (0.001)	0.002 (0.002)
1999-2008 (2008)	-0.001 (0.001)	0.009*** (0.001)	-0.037*** (0.001)	-0.032*** (0.001)	0.002† (0.001)	0.004** (0.002)
<i>City size/Ref: <100,000</i>						
>100,000	0.014*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.001 (0.002)	0.001 (0.002)
Paris region	0.092***	-0.027***	-0.027***	-0.027***	0.009***	0.009***

<i>Parents' characteristics</i>						
<i>Occupation/Ref: Blue collar</i>						
Farmers	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	
	-0.009*	-0.004	-0.005	-0.003	-0.003	-0.012
	(0.004)	(0.004)	(0.004)	(0.005)	(0.008)	(0.011)
Small business owners	0.009***	0.001	-0.003*	-0.000	-0.000	-0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Managers	0.011***	0.000	-0.006***	-0.000	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)
Intermediary professions	0.004**	-0.001	-0.004***	-0.002†	-0.001	-0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
White collar	0.005***	-0.001	-0.005***	-0.003**	-0.000	-0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Not working	-0.003	-0.000	0.007***	0.004*	-0.001	-0.001
	(0.002)	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)
Unemployed	-0.002	-0.001	0.005***	0.003†	-0.002	-0.004*
	(0.002)	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)
<i>Education/Ref: No degree</i>						
No secondary	-0.002	-0.003***	-0.004**	-0.004***	-0.003**	-0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vocational degree	-0.003**	-0.005***	-0.006***	-0.006***	-0.002	-0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bac	0.003*	-0.001	-0.005**	-0.004**	-0.003†	-0.005*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
University	0.007***	-0.000	-0.008***	-0.006***	-0.002	-0.004
	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)
Age	0.000	0.000	-0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age-squared	0.000	0.000	0.000	0.000 †	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Single parent	0.003**	0.001	0.000	0.001	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
<i>Number of children/Ref: 1 child</i>						
2 children	0.001	0.001	-0.001	-0.000	0.001	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
3 or more children	0.001	0.004***	0.005***	0.006***	0.004***	0.004**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
<i>Housing tenure/Ref: Renter</i>						

Homeowner	-0.002*	0.001	-0.001	0.000	-0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Public housing	0.000	0.003**	-0.004***	0.004***	-0.001	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.062***	0.094***	0.164***	0.176***	0.013†	0.030**
	(0.006)	(0.007)	(0.006)	(0.007)	(0.007)	(0.009)
Observations	33,189	32,794	33,189	32,794	5,543	5,506
R-squared	0.208	0.464	0.231	0.381	0.222	0.386

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.18 – *Multinomial Logistic Regression Model 4c Predicting Adult Housing Tenure*

	Homeowner	Public housing
<i>Parents' housing tenure/Ref: Renter</i>		
Homeowner	0.567*** (0.042)	-0.025 (0.043)
Public housing	-0.049 (0.054)	0.672*** (0.045)
Immigrant	0.199*** (0.045)	0.223*** (0.043)
<i>Adult characteristics</i>		
<i>Occupation/Ref: Blue collar</i>		
Other	-0.045 (0.098)	-0.877*** (0.136)
Managers	-0.127† (0.067)	-1.098*** (0.091)
Intermediary professions	0.071 (0.056)	-0.219*** (0.057)
White collar	-0.118* (0.054)	-0.084† (0.050)
Unemployed (never worked)	-0.176 (0.185)	0.146 (0.134)
Students	0.054 (0.075)	-0.550*** (0.075)
Inactive	-0.334*** (0.081)	-0.047 (0.072)
Unemployed	-0.717*** (0.069)	-0.048 (0.055)
<i>Education/Ref: No degree</i>		
Professional certificate	0.028 (0.051)	-0.178*** (0.043)
Bac	-0.140** (0.054)	-0.347*** (0.048)
University	-0.214*** (0.055)	-0.769*** (0.053)
Women	0.137*** (0.033)	0.103** (0.034)
Age	0.159*** (0.011)	0.064*** (0.011)
Age-squared	-0.001*** (0.000)	-0.000*** (0.000)
<i>Marital status/Ref: Single</i>		
Married	0.866*** (0.037)	0.150*** (0.039)
Divorced	0.787† (0.440)	0.227 (0.479)
Widowed	0.126 (0.136)	0.163 (0.127)
<i>Number of children/Ref: No children</i>		
1 child	0.517*** (0.040)	0.520*** (0.040)
2 children	0.664*** (0.055)	0.662*** (0.057)
3 children	0.207† (0.107)	0.628*** (0.096)
<i>Period/Ref: 1990-1999</i>		
1999-2008 (2004)	0.640*** (0.077)	0.146† (0.079)
1999-2008 (2005)	0.374***	-0.073

	(0.070)	(0.072)
1999-2008 (2006)	0.475***	-0.049
	(0.062)	(0.067)
1999-2008 (2007)	0.389***	-0.171**
	(0.059)	(0.064)
1999-2008 (2008)	0.440***	-0.315***
	(0.055)	(0.062)
<i>City size/Ref: <100,000</i>		
>100,000	-0.174***	0.134**
	(0.045)	(0.047)
Paris region	-0.166**	0.437***
	(0.059)	(0.064)
<i>Parents' characteristics</i>		
<i>Occupation/Ref: Blue collar</i>		
Farmers	-0.050	-0.829***
	(0.164)	(0.250)
Small business owners	0.181**	-0.449***
	(0.058)	(0.070)
Managers	-0.056	-0.423***
	(0.059)	(0.071)
Intermediary professions	0.011	-0.156**
	(0.049)	(0.051)
White collar	0.005	0.010
	(0.052)	(0.049)
Not working	0.097	0.059
	(0.073)	(0.066)
Unemployed	-0.058	-0.112†
	(0.072)	(0.060)
<i>Education/Ref: No degree</i>		
No secondary	0.043	-0.076†
	(0.047)	(0.043)
Vocational degree	-0.027	-0.116**
	(0.048)	(0.044)
Bac	-0.159**	-0.350***
	(0.058)	(0.063)
University	-0.149*	-0.649***
	(0.069)	(0.083)
Age	-0.006	-0.003
	(0.009)	(0.008)
Age-squared	0.000	0.000
	(0.000)	(0.000)
Single parent	-0.041	-0.023
	(0.043)	(0.041)
<i>Number of children/Ref: 1 child</i>		
2 children	-0.180***	0.025
	(0.037)	(0.041)
3 children	-0.368***	0.264***
	(0.042)	(0.043)
<i>Commune share of public housing</i>	0.473**	1.608***
	(0.183)	(0.180)
<i>Commune share of homeowners</i>	0.686***	0.780***
	(0.142)	(0.148)
<i>IRIS immigrant share</i>	0.014	-0.074
	(0.268)	(0.243)
<i>IRIS unemployment rate</i>	-0.196	0.399†
	(0.239)	(0.208)
<i>City size/Ref:<100,000</i>		
>100,000	0.155**	0.020
	(0.053)	(0.054)
Paris region	0.355*	-0.115
	(0.139)	(0.143)

Department of residence	Yes	Yes
Constant	-5.083*** (0.314)	-2.557*** (0.292)
Observations	33,189	33,189

Source: EDP 1990-2008 (INSEE). Base outcome is renter. Standard errors in parentheses

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

Table 6.19 – OLS Regression Models 5, 6 and 7 (c, d and e) Including Interactions

	M5c	M5d	M5e	M6c	M6d	M6e	M7c	M7d	M7e
	Immigrant	Immigrant	Immigrant	Unemployment	Unemployment	Unemployment	Co-ethnic	Co-ethnic	Co-ethnic
	share	share	share	rate	rate	rate	share	share	share
<i>Ref: Majority</i>									
Europe	0.010*** (0.002)	0.015*** (0.002)	-0.002 (0.002)	-0.006* (0.002)	-0.008*** (0.002)	-0.001 (0.002)			
Africa	0.040*** (0.002)	0.038*** (0.003)	0.014*** (0.002)	0.023*** (0.003)	0.005† (0.003)	0.009*** (0.003)	0.011*** (0.001)	0.007*** (0.001)	0.004** (0.001)
Asia/Turkey	0.043*** (0.005)	0.054*** (0.006)	0.028*** (0.005)	0.019** (0.006)	0.006 (0.006)	0.013* (0.006)	0.001 (0.002)	-0.003† (0.002)	-0.005* (0.002)
Other	0.009 (0.006)	0.011† (0.006)	-0.002 (0.006)	0.013* (0.006)	0.007 (0.006)	0.011† (0.006)			
<i>Interaction origin#child neighborhood</i>									
Majority#Immigrant share	0.334*** (0.006)	0.318*** (0.006)	0.059*** (0.007)						
Europe#Immigrant share	-0.011 (0.016)	-0.005 (0.016)	0.055*** (0.014)						
Africa#Immigrant share	-0.010 (0.014)	-0.015 (0.014)	0.081*** (0.013)						
Asia/Turkey#Immigrant share	0.014 (0.025)	0.007 (0.027)	0.129*** (0.024)						
Other#Immigrant share	0.269*** (0.038)	0.220*** (0.041)	0.197*** (0.036)						
Majority#Unemployment rate				0.226*** (0.005)	0.199*** (0.005)	0.045*** (0.006)			
Europe#Unemployment rate				-0.005 (0.016)	0.009 (0.016)	0.008 (0.015)			
Africa#Unemployment rate				0.038** (0.013)	0.060*** (0.013)	0.080*** (0.013)			
Asia/Turkey#Unemployment rate				0.023 (0.031)	0.059† (0.033)	0.119*** (0.032)			
Other#Unemployment rate				-0.093* (0.037)	-0.065† (0.037)	-0.004 (0.035)			
Europe#Co-ethnic share							0.286*** (0.037)	0.252*** (0.037)	0.156*** (0.037)

Africa#Co-ethnic share	(0.016)	(0.016)	(0.021)	(0.021)
	-0.027	-0.032	0.047†	0.047†
	(0.020)	(0.020)	(0.025)	(0.025)
Asia/Turkey#Co-ethnic share	0.146***	0.200***	0.306***	0.306***
	(0.025)	(0.026)	(0.032)	(0.032)
<i>Adult characteristics</i>				
<i>Occupation/Ref: Blue collar</i>				
Other	-0.001	-0.004	-0.007**	0.002
	(0.003)	(0.003)	(0.003)	(0.003)
Managers	0.019***	-0.008***	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)
Intermediary professions	0.009***	-0.003*	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.002)
White collar	0.006***	-0.004**	-0.002*	-0.001
	(0.001)	(0.001)	(0.001)	(0.002)
Unemployed (never worked)	0.002	0.031***	0.024***	0.009*
	(0.004)	(0.004)	(0.003)	(0.004)
Students	0.010***	0.007***	0.003†	0.001
	(0.002)	(0.002)	(0.002)	(0.002)
Inactive	0.008***	0.019***	0.014***	0.003
	(0.002)	(0.002)	(0.002)	(0.002)
Unemployed	0.007***	0.019***	0.015***	0.003*
	(0.001)	(0.001)	(0.001)	(0.002)
<i>Education/Ref: No degree</i>				
Professional certificate	-0.001	-0.007***	-0.006***	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Bac	-0.004***	-0.012***	-0.012***	-0.005**
	(0.001)	(0.001)	(0.001)	(0.001)
University	-0.000	-0.011***	-0.012***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)
Women	0.001	-0.000	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Age	-0.001*	-0.001***	-0.001**	-0.001*
	(0.000)	(0.000)	(0.000)	(0.000)
Age-squared	0.000	0.000***	0.000**	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
<i>Marital status/Ref: Single</i>				
Married	-0.001	-0.003**	-0.002**	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)

White collar	0.005*** (0.001)	-0.001 (0.001)	-0.005*** (0.001)	-0.004** (0.001)	-0.001 (0.001)	-0.002 (0.002)
Not working	-0.003† (0.002)	-0.001 (0.001)	0.007*** (0.002)	0.004* (0.002)	-0.001 (0.001)	-0.002 (0.002)
Unemployed	-0.003* (0.002)	-0.002 (0.001)	0.005** (0.002)	0.002 (0.002)	-0.003* (0.001)	-0.005** (0.002)
<i>Education/Ref: No degree</i>						
No secondary	-0.001 (0.001)	-0.002* (0.001)	-0.003* (0.001)	-0.004*** (0.001)	-0.003* (0.001)	-0.003* (0.001)
Vocational degree	-0.003* (0.001)	-0.004*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.002 (0.001)	-0.002 (0.001)
Bac	0.004** (0.001)	-0.001 (0.001)	-0.004** (0.001)	-0.004** (0.001)	-0.003† (0.002)	-0.004* (0.002)
University	0.007*** (0.002)	-0.000 (0.001)	-0.007*** (0.002)	-0.006*** (0.002)	-0.002 (0.002)	-0.004 (0.003)
Age	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Age-squared	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000† (0.000)	-0.000 (0.000)	-0.000 (0.000)
Single parent	0.003** (0.001)	0.001† (0.001)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.001)	0.000 (0.001)
<i>Number of children/Ref: 1 child</i>						
2 children	0.001 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
3 or more children	-0.000 (0.001)	0.002† (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.002 (0.001)	0.002 (0.001)
<i>Housing tenure/Ref: Renter</i>						
Homeowner	-0.002* (0.001)	0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)
Public housing	-0.001 (0.001)	0.003** (0.001)	-0.005*** (0.001)	0.004*** (0.001)	-0.001 (0.001)	-0.001 (0.001)
Municipality fixed effects	No	Yes	No	Yes	No	Yes
Constant	0.062*** (0.001)	0.063*** (0.006)	0.167*** (0.006)	0.137*** (0.007)	0.016** (0.001)	0.032*** (0.009)
Observations	34,855	32,794	33,189	32,794	6,269	5,543
R-squared	0.198	0.469	0.235	0.379	0.217	0.242

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

Table 6.20 – *Multinomial Logistic Regression Model 8 Including Interactions*

	M8c		M8d		M8e	
	Homeowner	Public housing	Homeowner	Public housing	Homeowner	Public housing
<i>Ref: Majority</i>						
Europe	0.368*** (0.098)	0.179† (0.103)	0.144 (0.112)	-0.108 (0.113)	0.147 (0.114)	-0.046 (0.115)
Africa	-0.054 (0.141)	0.782*** (0.107)	-0.237 (0.168)	0.297* (0.126)	-0.236 (0.170)	0.416** (0.130)
Asia/Turkey	1.095*** (0.228)	0.756** (0.249)	0.456 (0.298)	0.024 (0.295)	0.504† (0.302)	0.148 (0.300)
Other	0.102 (0.290)	0.707** (0.235)	0.386 (0.365)	0.894** (0.279)	0.376 (0.367)	1.067*** (0.287)
<i>Interaction Origin#Parents' housing tenure</i>						
Majority#Homeowner	0.670*** (0.040)	-0.108* (0.042)	0.609*** (0.045)	0.082† (0.046)	0.542*** (0.046)	-0.024 (0.048)
Majority#Public housing	0.080 (0.054)	1.249*** (0.045)	-0.002 (0.060)	0.846*** (0.049)	-0.063 (0.061)	0.653*** (0.051)
Europe#Homeowner	0.110 (0.114)	0.107 (0.129)	0.125 (0.128)	0.057 (0.138)	0.105 (0.130)	0.044 (0.141)
Europe#Public housing	0.149 (0.147)	-0.244† (0.137)	0.264 (0.162)	-0.070 (0.148)	0.254 (0.163)	-0.081 (0.150)
Africa#Homeowner	0.288† (0.171)	0.207 (0.145)	0.374† (0.201)	0.264 (0.166)	0.343† (0.202)	0.174 (0.169)
Africa#Public housing	0.011 (0.173)	-0.163 (0.124)	-0.013 (0.201)	0.115 (0.141)	0.010 (0.203)	0.087 (0.144)
Asia/Turkey#Homeowner	-0.256 (0.307)	-0.244 (0.373)	0.082 (0.392)	0.253 (0.430)	-0.082 (0.396)	0.096 (0.435)
Asia/Turkey#Public housing	-0.423 (0.294)	-0.307 (0.288)	0.172 (0.371)	0.219 (0.339)	0.238 (0.375)	0.168 (0.345)
Other#Homeowner	-0.126 (0.337)	-1.022** (0.344)	-0.191 (0.421)	-1.044** (0.402)	-0.239 (0.423)	-1.215** (0.410)
Other#Public housing	0.529 (0.439)	-0.127 (0.342)	0.591 (0.530)	0.005 (0.408)	0.545 (0.535)	-0.119 (0.418)
<i>Adult characteristics</i>						
<i>Occupation/Ref: Blue collar</i>						
Other			-0.035 (0.097)	-0.949*** (0.135)	-0.040 (0.098)	-0.891*** (0.137)
Managers			-0.088 (0.066)	-1.049*** (0.090)	-0.120† (0.067)	-1.118*** (0.091)
Intermediary professions			0.117* (0.056)	-0.194*** (0.056)	0.080 (0.056)	-0.238*** (0.057)
White collar			-0.096† (0.053)	-0.082† (0.049)	-0.110* (0.054)	-0.097† (0.051)
Unemployed (never worked)			-0.150 (0.183)	0.121 (0.132)	-0.136 (0.185)	0.108 (0.134)
Students			-0.004 (0.074)	-0.594*** (0.074)	0.070 (0.075)	-0.590*** (0.075)
Inactive			-0.327*** (0.081)	-0.090 (0.071)	-0.325*** (0.081)	-0.071 (0.072)
Unemployed			-0.692*** (0.069)	-0.075 (0.054)	-0.699*** (0.069)	-0.076 (0.056)
<i>Education/Ref: No degree</i>						
Professional certificate			0.030 (0.051)	-0.160*** (0.043)	0.033 (0.051)	-0.178*** (0.044)
Bac			-0.137* (0.054)	-0.329*** (0.048)	-0.133* (0.055)	-0.358*** (0.049)
University			-0.217*** (0.055)	-0.731*** (0.052)	-0.209*** (0.055)	-0.774*** (0.053)
Women			0.138***	0.090**	0.137***	0.106**

	(0.033)	(0.034)	(0.033)	(0.035)
Age	0.162***	0.064***	0.159***	0.068***
	(0.011)	(0.011)	(0.011)	(0.011)
Age-squared	-0.001***	-0.000***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
<i>Marital status/Ref: Single</i>				
Married	0.880***	0.121**	0.870***	0.131***
	(0.036)	(0.039)	(0.037)	(0.039)
Divorced	0.761†	0.250	0.781†	0.247
	(0.443)	(0.470)	(0.440)	(0.478)
Widowed	0.159	0.093	0.138	0.127
	(0.134)	(0.126)	(0.136)	(0.128)
<i>Number of children/Ref: No children</i>				
1 child	0.516***	0.516***	0.514***	0.527***
	(0.040)	(0.039)	(0.040)	(0.040)
2 children	0.680***	0.673***	0.663***	0.674***
	(0.054)	(0.056)	(0.055)	(0.057)
3 or more children	0.253*	0.698***	0.214*	0.635***
	(0.106)	(0.095)	(0.107)	(0.096)
<i>City size/Ref:<100,000</i>				
>100,000			-0.171***	0.129**
			(0.045)	(0.047)
Paris region			-0.161**	0.421***
			(0.059)	(0.064)
<i>Period/Ref: 1990-1999</i>				
1999-2008 (2004)	0.688***	0.217**	0.641***	0.147†
	(0.076)	(0.077)	(0.077)	(0.080)
1999-2008 (2005)	0.419***	-0.018	0.380***	-0.078
	(0.068)	(0.070)	(0.070)	(0.072)
1999-2008 (2006)	0.515***	-0.006	0.484***	-0.064
	(0.060)	(0.065)	(0.062)	(0.067)
1999-2008 (2007)	0.429***	-0.135*	0.392***	-0.184**
	(0.057)	(0.062)	(0.059)	(0.064)
1999-2008 (2008)	0.484***	-0.289***	0.452***	-0.330***
	(0.053)	(0.060)	(0.055)	(0.063)
<i>Parents' characteristics</i>				
<i>Occupation/Ref: Blue collar</i>				
Farmers	-0.078	-0.934***	-0.052	-0.831***
	(0.162)	(0.246)	(0.164)	(0.250)
Small business owners	0.156**	-0.513***	0.179**	-0.454***
	(0.057)	(0.069)	(0.058)	(0.071)
Managers	-0.008	-0.427***	-0.058	-0.421***
	(0.058)	(0.070)	(0.059)	(0.071)
Intermediary professions	0.036	-0.160**	0.010	-0.157**
	(0.048)	(0.050)	(0.049)	(0.051)
White collar	0.002	-0.040	0.002	0.006
	(0.051)	(0.048)	(0.052)	(0.049)
Not working	0.088	0.010	0.100	0.049
	(0.073)	(0.065)	(0.074)	(0.066)
Unemployed	-0.045	-0.139*	-0.057	-0.133*
	(0.072)	(0.059)	(0.073)	(0.060)
<i>Education/Ref: No degree</i>				
No secondary	0.043	-0.061	0.032	-0.059
	(0.046)	(0.043)	(0.047)	(0.043)
Vocational degree	-0.031	-0.116**	-0.034	-0.106*
	(0.048)	(0.044)	(0.048)	(0.045)
Bac	-0.193***	-0.376***	-0.170**	-0.343***
	(0.057)	(0.062)	(0.058)	(0.063)
University	-0.198**	-0.690***	-0.157*	-0.641***
	(0.068)	(0.082)	(0.069)	(0.083)
Age	-0.003	-0.002	-0.004	-0.004

			(0.009)	(0.008)	(0.009)	(0.008)
Age-squared			0.000	-0.000	0.000	0.000
			(0.000)	(0.000)	(0.000)	(0.000)
Single parent			-0.056	-0.022	-0.047	-0.019
			(0.043)	(0.041)	(0.043)	(0.042)
<i>Number of children/Ref: 1 child</i>						
2 children			-0.157***	0.027	-0.176***	0.019
			(0.036)	(0.040)	(0.037)	(0.041)
3 children			-0.287***	0.280***	-0.340***	0.211***
			(0.042)	(0.042)	(0.043)	(0.043)
<i>Commune share of public housing</i>						
					0.471*	1.606***
					(0.183)	(0.180)
<i>Commune share of homeowners</i>						
					0.683***	0.791***
					(0.142)	(0.148)
<i>IRIS immigrant share</i>						
					0.026	-0.180
					(0.269)	(0.245)
<i>IRIS unemployment rate</i>						
					-0.151	0.347†
					(0.239)	(0.209)
<i>City size/Ref:<100,000</i>						
>100,000					0.155**	0.020
					(0.053)	(0.055)
<i>Paris region</i>						
					0.354*	-0.120
					(0.139)	(0.143)
Department	No	No	No	No	Yes	Yes
Constant	-1.221***	-1.198***	-5.234***	-1.940***	-5.151***	-2.506***
	(0.036)	(0.035)	(0.288)	(0.261)	(0.316)	(0.294)
Observations	34,851	34,851	33,189	34,851	34,851	33,189

Source: EDP 1990-2008 (INSEE). Base outcome is renter. Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Table 6.21 – OLS Regression Models 9, 10 and 11 (Random Effects)

	M9	M10	M11
	Immigrant share	Unemployment rate	Co-ethnic share
<i>Year/Ref:1999</i>			
2008	0.006*** (0.001)	-0.012*** (0.001)	-0.001 (0.001)
<i>Interaction Year#Child neighborhood</i>			
1999#Immigrant share	0.111*** (0.007)		
2008#Immigrant share	-0.004 (0.007)		
1990#Unemployment rate		0.129*** (0.007)	
2008#Unemployment rate		-0.086*** (0.008)	
1999#Co-ethnic share			0.204*** (0.014)
2008#Co-ethnic share			-0.037** (0.013)
<i>Ref: Majority</i>			
Europe	0.005** (0.002)	0.000 (0.002)	
Africa	0.031*** (0.002)	0.023*** (0.002)	0.009*** (0.002)
Asia/Turkey	0.048*** (0.004)	0.019*** (0.004)	0.008** (0.003)
Other	0.019*** (0.006)	0.010 (0.006)	
<i>Ref: Europe</i>			
<i>Adult characteristics</i>			
<i>Occupation/Ref: Blue collar</i>			
Other	-0.004† (0.002)	-0.004† (0.002)	-0.000 (0.003)
Managers	-0.003† (0.002)	-0.004* (0.002)	0.002 (0.002)
Intermediary professions	-0.002 (0.001)	-0.002 (0.002)	-0.000 (0.002)
White collar	0.001 (0.001)	-0.002 (0.001)	0.002 (0.002)
Unemployed (never worked)	0.005 (0.005)	0.012* (0.005)	-0.002 (0.005)
Students	0.003 (0.002)	0.003 (0.002)	0.001 (0.003)
Inactive	0.004* (0.002)	0.012*** (0.002)	0.002 (0.002)
Unemployed	0.003* (0.002)	0.014*** (0.002)	0.000 (0.002)
<i>Education/Ref: No degree</i>			
Professional certificate	-0.003* (0.001)	-0.005*** (0.001)	0.001 (0.001)
Bac	-0.005*** (0.001)	-0.011*** (0.002)	-0.004* (0.002)
University	-0.004** (0.001)	-0.010*** (0.002)	-0.004* (0.002)
Women	0.001 (0.001)	-0.000 (0.001)	0.001 (0.001)
Age	-0.001** (0.000)	-0.002*** (0.000)	0.000 (0.000)
Age-squared	0.000* (0.000)	0.000*** (0.000)	-0.000 (0.000)

	(0.000)	(0.000)	(0.000)
<i>Marital status/Ref: Single</i>			
Married	-0.003**	-0.003**	0.002*
	(0.001)	(0.001)	(0.001)
Divorced	0.003	0.007	-0.001
	(0.008)	(0.008)	(0.008)
Widowed	0.002	0.003	0.004
	(0.002)	(0.002)	(0.002)
<i>Number of children/Ref: No children</i>			
1 child	-0.003***	-0.003**	0.000
	(0.001)	(0.001)	(0.001)
2 children	-0.005***	-0.004***	-0.001
	(0.001)	(0.001)	(0.001)
3 children	-0.004*	-0.001	0.001
	(0.002)	(0.002)	(0.002)
<i>Housing tenure/Ref: Renter</i>			
Homeowner	-0.007***	-0.009***	0.002
	(0.001)	(0.001)	(0.001)
Public housing	0.017***	0.029***	0.007***
	(0.001)	(0.001)	(0.001)
<i>City size/Ref: >100,000 >100,000</i>			
	0.015***	0.011***	0.004*
	(0.001)	(0.001)	(0.002)
Paris region	0.090***	-0.018***	0.012***
	(0.001)	(0.002)	(0.002)
<i>EDP collection year/Ref: 2004 2005</i>			
	0.000	0.002	-0.002
	(0.001)	(0.002)	(0.002)
2006	0.002	0.002	0.002
	(0.001)	(0.001)	(0.002)
2007	0.001	0.002	0.000
	(0.001)	(0.001)	(0.002)
2008	0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.002)
<i>Parents' characteristics</i>			
<i>Occupation/Ref: Blue collar</i>			
Farmers	-0.004	-0.006	-0.014
	(0.005)	(0.005)	(0.011)
Small business owners	0.003	-0.001	-0.001
	(0.002)	(0.002)	(0.003)
Managers	0.001	-0.001	-0.006
	(0.002)	(0.002)	(0.004)
Intermediary professions	0.000	-0.001	-0.005†
	(0.001)	(0.002)	(0.003)
White collar	-0.001	-0.001	-0.003
	(0.001)	(0.002)	(0.003)
Not working	0.001	0.005*	-0.004
	(0.002)	(0.002)	(0.002)
Unemployed	-0.000	0.003	-0.000
	(0.002)	(0.002)	(0.002)
<i>Education/Ref: No degree</i>			
No secondary	0.001	-0.003†	-0.002
	(0.001)	(0.001)	(0.002)
Vocational degree	-0.002	-0.003*	-0.002
	(0.001)	(0.001)	(0.002)
Bac	-0.000	-0.004†	-0.000
	(0.002)	(0.002)	(0.004)
University	0.004*	0.000	-0.001
	(0.002)	(0.002)	(0.004)
Age	0.000	-0.001	0.000
	(0.000)	(0.000)	(0.000)
Age-squared	0.000	0.000†	-0.000
	(0.000)	(0.000)	(0.000)

Single parent	-0.000 (0.001)	-0.001 (0.001)	-0.000 (0.002)
<i>Number of children/Ref: 1 child</i>			
2 children	0.000 (0.001)	0.001 (0.001)	0.001 (0.002)
3 children	0.003* (0.001)	0.003** (0.001)	0.003 (0.002)
<i>Housing tenure/Ref: Renter</i>			
Homeowner	-0.002 (0.001)	-0.004** (0.001)	-0.000 (0.002)
Public housing	0.003* (0.001)	0.001 (0.001)	-0.003 (0.002)
<i>City size/Ref: >100,000 >100,000</i>			
	-0.004** (0.001)	-0.001 (0.002)	0.001 (0.002)
Paris region	-0.030*** (0.004)	0.005 (0.004)	-0.002 (0.006)
Department control	Yes	Yes	Yes
Constant	0.050*** (0.011)	0.197*** (0.012)	-0.011 (0.015)
Observations	20,730	20,730	3,059
Number of id	10,368	10,368	1,530

Source: EDP 1990-2008 (INSEE). Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

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