The Internal Migration of Immigrants: Differences between One-Time and Multiple Movers in Spain*

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ABSTRACT

Research on the mobility and residential patterns of immigrants within receiving countries is abundant. The selective nature of movers and the location of immigrants are issues that have received special attention. Most studies are premised on the supposition that immigrants move only once. However, for a number of immigrants, internal migration is a dynamic process in which more than one movement is involved. This article extends the literature by disaggregating immigrants according to their number of internal migrations. We use data from a new and rich retrospective survey to examine the determinants of migration trajectories and the effects of the location choices of immigrants. We elaborate a set of indicators to assess the importance of the spatial assimilation theory and other main theoretical frameworks. This article concentrates on Spain, a recent main migratory destination in Europe and worldwide. Results reveal the existence of significant differences between one-time and multiple movers. The selective nature of multiple movers is explained in part by the spatial assimilation paradigm. Further results show that both one-time and multiple movers tend to reside outside ethnic concentrations as a result of their mobility experience within Spain.

Keywords: immigrants; internal migration trajectories; causes; effect on residential concentration of immigrants; Spain

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Research on the mobility and residential patterns of immigrants within receiving countries is abundant. The selective nature of movers and the location of immigrants are issues that have received special attention. Most studies are premised on the supposition that immigrants move only once. However, for a number of immigrants, internal migration is a dynamic process in which more than one movement is involved. This article extends the literature by disaggregating immigrants according to their number of internal migrations. We use data from a new and rich retrospective survey to examine the determinants of migration trajectories and the effects of the location choices of immigrants. We elaborate a set of indicators to assess the importance of the spatial assimilation theory and other main theoretical frameworks. This article concentrates on Spain, a recent main migratory destination in Europe and worldwide. Results reveal the existence of significant differences between one-time and multiple movers. The selective nature of multiple movers is explained in part by the spatial assimilation paradigm. Further results show that both one-time and multiple movers tend to reside outside ethnic concentrations as a result of their mobility experience within Spain.

INTRODUCTION

The migration process for many immigrants does not finish when they arrive in the country of destination. The foreign-born may undertake one or more subsequent movements within the host country (the terms *immigrant* and *foreign-born* are used as synonyms in this article). The study of the internal migration of immigrants has paid some attention to the causes and effects of these movements. With regard to causes, the main issue is the potential selectivity of 'movers' (immigrants who change their location of residence in the country of destination). There is evidence that movers tend to display significantly different features in relation to 'stayers' (immigrants who have been continuously living in the same location) (for a recent review, see Tammaru and Kontuly, 2010). On the other hand, the location of immigrants has (positive or negative) consequences for host societies and immigrants themselves (for discussions of works, see Musterd, 2003; Silvestre, forthcoming).

Internal migration, in fact, may be an indicator of immigrants' socio-economic advancement subsequent to arrival and be a vehicle for the establishment of ties with the host country. It has been proposed that spatial mobility may be associated with convergence in residential patterns with natives or other groups, in order to *assimilate*—i.e. to experience further acculturation and gain more opportunities (e.g. Massey, 1985; Alba and Nee, 1997). For a number of reasons related to the existence of a set of displacement and integration costs, immigrants tend at first to follow a process or racial or ethnic concentration in some areas. Subsequent reallocation, possibly leading to dispersion from community of origin, would plausibly be related to better insertion into the host society.

However, the relationship between spatial mobility and assimilation is not always straightforward. Socio-economic improvement and the creation of links to the host country do not necessarily lead to spatial assimilation (as explained in the next section). For example, it has been shown that the influence of certain individual characteristics on the propensity to move may vary among immigrant groups. Likewise, it seems that some individuals, regardless their socio-economic status, prefer to reside in ethnic enclaves. The persistence of high costs of moving or the existence of discriminatory practices (for example, in the housing market) can also hamper the assimilation process.

Therefore, there is not consensus on the characteristics of immigrants who move within the host society, or on their eventual dispersion from original concentrations of foreign-born.

Research has approached these issues from different perspectives. Most studies are premised on a 'one-period model' in which the foreign-born move only once within the host country. This article extends the literature on the mobility and residential patterns of immigrants by taking into consideration that a number of immigrants in fact undertake more than one internal movement. Previous research has normally examined either the (initial or current) residential location choice of immigrants or their internal mobility. Some studies are able to combine data at different points in time (e.g. Funkhouser, 2000; Rebhun, 2003; Hou, 2007; Xu, 2011). Few studies have made use of longitudinal databases allowing researchers to capture several movements or location choices of the same individuals (Åslund, 2005; South *et al.*, 2005; Zorlu and Mulder, 2008). The present article explores migration trajectories. This strategy allows us to gain further insight into the selective nature of movers and the effect of internal mobility on the dispersion of the immigrant population.

We take advantage of a new retrospective micro (individual) database that enables us to follow the movement of immigrants within a given host society. This article builds on the literature by proposing a single model that combines different mobility options. Previous research usually focuses either on movers or on a dichotomous movers/stayers classification. We use an extended three-category classification that enables us to capture differences among one-time movers, the main category of interest in most studies, multiple movers and stayers.

The literature on the spatial redistribution of the foreign-born has focused on main countries of destination like the United States, Canada and Australia, as well as on Israel and some European destinations with dense migratory traditions like Britain, the Netherlands and Sweden. This article examines the case of Spain, a newcomer as a major destination for international migration flows. During the first years of the Twenty First Century (at least until the recent economic crisis), Spain became one of the main destinations both in Europe and worldwide (United Nations, 2006; International Organization for Migration, 2008). In spite of recent empirical research, our knowledge of the spatial redistribution of immigrants in Spain is less than adequate. This article

follows the lead of two recent works that have analyzed who moves and how often, and the spatial patterns of internal migration (Reher and Silvestre 2009, 2001). In this article, we deepen our understanding of multiple movers, adopt a more consistent theoretical and empirical framework, and use a larger sample.

PREVIOUS RESEARCH ON THE SPATIAL REDISTRIBUTION OF IMMIGRANTS

The literature on the spatial redistribution of immigrants in destination countries varies according to the kind of data (individual, aggregate or a combination of both) available. A small group of destination countries has concentrated the interest of the majority of the literature, although new cases have been recently added (e.g. Ishikawa and Liaw, 2009; Reher and Silvestre, 2009; Tammaru and Kontuly, 2010). Descriptive and empirical research investigates residential and/or migration patterns. Internal migration and residential patterns are observably interrelated, since the former may be a main driver of the latter (for example, for the US and Britain, see Massey and Capoferro, 2008; Simpson and Finney, 2009).

Theoretical approaches to mobility and residential patterns of immigrants vary. *Spatial assimilation theory* has been central in the debate (for recent assessments, see Zorlu and Mulder, 2008; Bolt and van Kempen, 2010; Tammaru and Kontuly, 2010). According to this paradigm, immigrants will disperse from early settlements (often, neighbourhoods, but also cities of different sizes or regions are considered) in the host country, in which members of the same group (usually, national or ethnic, but other classifications may be considered) abound or predominate, to subsequent locations. Upon their arrival, immigrants prefer to live in enclaves and accumulate *social capital* for a variety of motives, such as access to information, assistance and resources shared in social networks, the availability of ethnic goods and services, fear of prejudices or discrimination, and burdens imposed by housing and moving costs. The mobility process will occur as a result of immigrants' socio-economic advancement and the creation of ties with the host country (for example, learning the native language). This will result in increased proximity to the majority (or to some other) group and

potentially to separation from the same origin group, which may reinforce socio-economic mobility and acculturation.

The spatial assimilation theory has not been unchallenged. Criticisms may be clustered in two groups. A first body of modifications, which is often referred to as the *segmented assimilation theory*, emphasizes the variations of the incorporation process (e.g. Portes and Zhou, 1993). Put simply, immigrant groups may assimilate to different types of locations and paces (from a more geographically oriented point of view, see Zelinsky and Lee 1998; Wright and Ellis 2000). Individuals, even those who experience socio-economic advancement, may also prefer to remain at (or to move to) enclaves, where they obtain benefits from social networks (as proposed by the related *ethnic enclave perspective*; Bråmå, 2008; Bolt and van Kempen, 2010). A second main perspective, the *ethnic disadvantage model* (or *place stratification model*), points to prejudice attitudes or discriminatory behaviour by (usually) the dominant group in domains such as labour or housing (e.g. Iceland and Scopilliti, 2008).

Empirical research has made use of several variables to reflect these perspectives. Scholars do not always make explicit links between theory and variables. The same variable, in fact, is often assigned to capture different processes in research. Lack of information sometimes limits our ability to contrast certain hypotheses (for example, welfare benefits or discrimination). Nevertheless, there is a body of indicators that are widely used in the literature.

Among variables that usually reflect the effect of socio-economic advancement, the propensity to move towards, or to reside in, less segregated locations tends to be positively associated with the level of education, a certain level of income or having a good occupation, and negatively associated with being unemployed and home ownership (some of these variables appear in, for example, Bartel 1989; Kritz and Nogle, 1994; Nogle, 1994, 1997; Moore and Rosenberg 1995; Newbold, 1996; Beenstock 1997, 1999; Åslund, 2005; South *et al.*, 2005; Ellis and Goodwin-White, 2006; Finney and Simpson, 2008; Iceland and Scopilliti, 2008; Zorlu and Mulder, 2008; Ishikawa and Liaw, 2009; Bolt and van Kempen, 2010; Tammaru and Kontuly, 2010; Kritz *et al.*, 2011; Xu, 2001). The strengthening of social and cultural ties within the host country, normally proxied by indicators such as fluency in the native language, the acquisition of citizenship, the extent and type of contacts with the majority (or some

other) population (for example, by means of intermarriage), as well as the length of residence (a supplementary proxy for integration), tends to be positively correlated with mobility towards, or residence in, less segregated locations (e.g. Kritz and Nogle, 1994; Nogle, 1994; Chiswick *et al.*, 2001; Mesch 2002; South *et al.*, 2005; Iceland and Scopilliti, 2008; Le, 2008; Iceland and Nelson, 2010; Tammaru and Kontuly, 2010; Kritz *et al.*, 2011).

The literature, however, presents a number of exceptions. As argued by Iceland and Scopilliti (2008), it would fair to say that the findings provide partial evidence for the spatial assimilation model. For example, it has been shown that individual socio-economic advancement is not always linked to mobility or dispersion from immigrant communities (e.g. Hempstead, 2007; Hou, 2007; Diaz McConnell, 2008). In this regard, the retaining or attracting power of immigrant concentrations is emphasized in many studies (e.g. Kritz and Nogle, 1994; Moore and Rosenberg, 1995; Liaw and Frey, 1998; Zavodny, 1999; Åslund, 2005; South *et al.*, 2005; Ellis and Goodwin-White, 2006; Goodwin-White, 2007; Le, 2008; Zorlu and Mulder 2008; Tammaru and Kontuly, 2010; Kritz *et al.*, 2011; Xu, 2011). Likewise, in the literature the estimated coefficients of variables indicating place of birth often remain significant when the rest of variables are controlled for. Altogether, these findings would suggest a variety of experiences for individuals and immigrant groups.

SPAIN, A COUNTRY OF IMMIGRATION

Spain was predominantly a country of emigration between the late nineteenth century and the latter part of the twentieth century (e.g. Izquierdo, 1996; King, 2000; Arango, 2004; Cachón, 2006). Before the end of the century, the majority of immigrants were Western Europeans (working for multinational companies or retirees) and North Africans (in particular Moroccans). In 1999, the total stock of foreign-born still remained low (under 2%). By the year 2000, immigration had accelerated dramatically as Spain began to receive high numbers of immigrants from Latin America (in particular Ecuador and Colombia, but also from Argentina and, more recently, Bolivia and Peru), North Africa (in particular Morocco), Eastern Europe (in particular Romania)

and, to a lesser extent, Asia. In 2009 (in the early stages of the current economic crisis), there were 6.5 million foreign-born in the country, amounting to nearly 14% of the total population. The main countries of origin were: Romania (11.7% of the total immigrant population, according to the Municipal Register), Morocco (11.3), Ecuador (7.6), United Kingdom (5.9), Colombia (5.5), Argentina (4.8), and Peru (2.7) (Requena and Reher, 2009).

A significant part of immigration has come to Spain for work-related reasons, although family-related reasons have increased in recent years (Systeme d'Observation Permanente sur les Migrations, 2008; Reher and Requena, 2009a; Vono-de-Vilhena and Bayona-Carrasco, 2012). Demographic and socio-economic characteristics of immigrants vary by country of origin (e.g. Cachón, 2006; Amuedo-Dorantes and De la Rica, 2010; Reher and Requena, 2009a, 2009b). At the moment of their departure for Spain, the type of economic activity of immigrants tended to be closely related to the socio-economic structure of their countries of origin. However, as with other countries, immigrants in Spain present high levels of sectorial and occupational segregation, as well as incorporation into low-quality jobs and over-qualification (e.g. Ribas, 2004; Cachón, 2006; Fernandez and Ortega, 2008; Simón *et al.*, 2008; Bernardi *et al.*, 2010; Vono-de-Vilhena and Bayona-Carrasco, 2012). The severe economic crisis Spain is suffering since 2008 is having substantial effects on both the size and working and living conditions (for example, unemployment and labour force participation) of the immigrant population (Reher *et al.*, 2011); although the literature has yet to produce consolidated findings on this subject.

The literature on the locational choices of immigrants in Spain is relatively scarce (for a discussion of studies, see Reher and Silvestre, 2009, 2011). Descriptive research, which normally has made use of aggregate (provincial or regional) data, suggests that the rise in immigration during the first decade of the present century has lead to a certain dispersion of the stock of immigrants (e.g. Recaño and Domingo, 2006; Reher and Silvestre, 2011; Collantes *et al.*, 2012). However, the same studies also indicate a significant concentration of immigrants in few southern and eastern coastal regions (in particular Catalonia and Valencia) and the region embracing the capital city of Madrid (see also Recaño, 2002; Dolado and Vázquez, 2007; Reher and Requena, 2009a; Amuedo-Dorantes and De la Rica, 2010). On the contrary, a number of inland and

northern regions have displayed a limited ability to attract immigrants (López Trigal, 2008).

The spatial mobility of immigrants has been specifically analyzed in a number of studies (e.g. Recaño, 2002; García-Coll, 2005; Recaño and Domingo, 2006; Ródenas and Martí, 2006; Dolado and Vázquez, 2007). A recent descriptive (not empirical) study, for example, shows that short-distance internal migration tends to predominate, with movements within any given province representing more than half of all moves; among other spatial mobility processes, provincial capitals seem to redistribute population to other types of municipalities (Reher and Silvestre, 2011). Published empirical research, based on individual data, is still scant. Using the new National Immigrant Survey, Reher and Silvestre (2009) find that a number of indicators normally used to reflect the spatial assimilation theory (e.g. education, acquisition of citizenship, length of residence in the host country**,** and the establishment of social networks) help explain the propensity to move. In the next section we first extend the set of potential indicators of mobility used by Reher and Silvestre (2009) (for example, homeownership, marriage indicators, and a new social networks variable) and include a wider variety of migration trajectories. We then examine the relationship between migration trajectories and the concentration of immigrant populations.

DATA AND METHODS OF ANALYSIS

We use the National Immigrant Survey (Encuesta Nacional de Inmigrantes – ENI-2007), which contains a large amount of information on the foreign-born in Spain.[1] For the specific purposes of this study, the ENI enable us to consider inter- and intra-provincial movements across municipal boundaries within Spain (an additional test, unreported here, on intra-municipal mobility was also performed). Municipalities make up the basic administrative unit in Spain. They normally refer to towns and villages, though in some regions (such as Galicia or Asturias) a municipality may in fact include

[1] For a complete presentation of the methodological aspects of the ENI, see Reher and Requena (2009b). The survey instrument and the microdata can be found at the Spanish Statistical Office Web site (http://www.ine.es).

a number of different settlements within a single unit. Municipalities can vary widely in population, from well over one million people to just a few hundred, and in size (we deal with this issue below, when explaining explanatory variables). The use of the municipality as primary unit of analysis in this study, makes it possible to capture a wide array of short- and long-distance movements between different types of places of origin and destination, and by covering the entire country it is possible to extend the scale of many spatial studies of immigrants assimilation (for a review of works in this regard, see e.g. Goodwin-White, 2007; further studies are cited in this article).

The survey was administered to 15,465 non-native current residents of Spain 16 years and older (response rate=87.4%), regardless their legal status, between the months of November 2006 and February 2007. Persons who had been in Spain for less than a year but intent on to remaining in the country for at least a year also qualified for participation in the survey. While persons with Spanish citizenship from birth have been excluded from this analysis, those acquiring it before migration are included. The Spanish Statistical Office designed a strategy for locating informants based on the Municipal Register (*Padrón Municipal*). The results of this survey are statistically representative of Spain, for the main migrant origins and for the major regions (Autonomous Communities) of the country (Reher and Requena, 2009b). The results presented in this article are based on unweighted data because recent research has shown that the sample frame set up by the Spanish Statistical Office leads to a significant overrepresentation of males (Rosero-Bixby *et al*., 2011).

Our empirical analysis proceeds in two parts and will include a series of robustness checks to confirm our findings. The first model refers to internal migration trajectories since arrival in Spain. Aimed at avoiding endogeneity, with some exceptions (discussed below), the explanatory variables incorporated into the first model refer to the point of time before the *entire* internal migration trajectory begins (that is, upon arrival). The ENI does not enable us to estimate a model matching key explanatory variables in our analysis with the point of time immediately before each possible movement (it should be taken into account that *multiple movers*, one of our types of migrants, may reach up to fifteen internal migrations; see also Table 2). The second model refers to residential patterns once internal mobility has occurred.

The first model examines the determinants of internal migration. We assume that, after reaching their first location in Spain immigrants may display three internal migration trajectories. *One-time movers* are those immigrants who have changed municipality of residence only once. *Multiple movers* are those immigrants who have changed municipality more than one time. *Stayers* are those immigrants who have never changed their municipality of residence since their arrival in Spain. Table 1 summarizes the relative importance of the three types of migrants. In Table 2, multiple movers are disaggregated according to the number of internal movements so as to give an idea of the importance of this sort of movement. It should be kept in mind that the three categories do not necessarily include full internal migration trajectories because observation is truncated at the moment of the survey. This counsels caution in interpreting the results of our empirical analysis.

[Insert Tables 1 and 2 here]

To explain the likelihood of being in any of the three categories of migrants, we estimated multinomial logit (MNL) models. The MNL model is the most frequently used regression model when the outcome is nominal; that is, the categories are assumed not to have a natural order. In the field of migration studies, the MNL model is suitable for the analysis of the effects of individual characteristics (rather than spatial or aggregate unit characteristics) on the migration decision (Cushing and Poot, 2004).[2]

Guided by the literature review, we used a wide range of indicators that are described in Table 3 (summary statistics refer to the entire sample). The first variables concern demographic attributes. Age is expected to reduce the propensity to make internal movements. Age, for example, reduces economic returns to migration (age squared was not statistically significant and reduced considerably the main impact of

[2] The MNL model makes the assumption known as the independence of irrelevant alternatives (IIA). This means that adding or deleting alternatives (i.e., migration categories) does not affect the odds among the remaining alternatives. Available tests of the IIA assumption, however, can produce contradictory results (Long and Freese, 2006). The IIA, moreover, is a very restrictive assumption, whose relaxation makes sense under certain conditions. For example, the MNL model is appropriate when the outcome categories are plausibly assumed to be different (McFadden, 1973; Ameniya, 1981; Cushing and Poot, 2004). We assume our internal migration trajectories are distinct.

age). We used age at arrival to stress the fact that younger immigrants may face different opportunities in the country of destination than those who arrive at later ages. The expected sign of the impact of sex is not clear a priori, though in the literature men have been shown to be more likely to undertake internal migration than women.

[Insert Table 3 here]

Two sets of variables were selected to test the spatial assimilation paradigm.[3] Socio-economic advancement indicators include the level of education, the duration of unemployment and homeownership (upon arrival in Spain). Social and cultural ties indicators include having the Spanish citizenship (before arrival), intermarriage status (at the moment of arrival) and the length of residence.[4]

The next two sets of variables were intended to reflect the main theoretical approaches that have tended to qualify the spatial assimilation model as the only interpretation of the integration process. The effect of migration or social networks on

[3] The possibility of using additional spatial assimilation variables (occupations, wages, self-employment, further types of contacts with natives, and legal status) was considered but eventually discarded because of the nature of the database. Fluency in Spanish was highly correlated (r=0.75) with Latin America as place of birth. A distinction between the first and the still very young second generation is not useful for our analysis.

[4] In the determinants of migration model (Table 4), there are potential shortcomings related to the nature of the database. First, education and unemployment variables refer to events that may have occurred after, and not before, the entire (or part of the) internal migration trajectory. However, because it has been shown that relatively mature immigrants acquire little formal education after their arrival in Spain, the potential endogeneity of education variables seems to be less relevant (Fernández and Ortega, 2008), With regard to the direction of the casualty between the duration of unemployment and mobility, we assume here that the total amount of time that the immigrant is unemployed captures his or her incentives for subsequent migration. Second, it must be admitted that, as explained in detail by Vono-de-Vilhena and Bayona-Carrasco (2012), information on immigrants who do not live in his or her dwelling or own more than one is not appropriately reflected. Intermarriage status is retrospectively assessed for current marriages plus date of marriage. The source allows us to use a more complete intermarriage status variable in the residential patterns model (Table 5), as described in Table 3. We have not included cohabiting couples because it is not possible to know whether a person immigrating with a partner and currently residing with one is in fact residing with the same partner (on this matter, see Cortina and Esteve, 2012).

mobility is captured at three different levels, along the lines proposed in recent studies and designed to reflect their complexity (Rebhun, 2003; Hou, 2007; Diaz McConnell, 2008; on types of 'interpersonal ties', see also Portes, 1995). We rearranged data provided by the ENI on 'migration experience' (questions included in Table 2 from the questionnaire) and the reasons to move to Spain (question 4.4) to incorporate the effect of family regrouping and the existence of friends and/or recruiters, respectively. To reflect the extent of ethnic residential concentrations, we elaborated a variable similar to those proposed in recent studies using individual databases on the immigrant population (Edin *et al.*, 2003; Boman, 2010; see also Damm, 2009). The procedure is explained in Table 3. Finally, the world region of birth variables should reflect possible differences in the assimilation process of various groups of immigrants (when the rest of determinants are controlled for).[5]

We also included location fixed effects, as proposed by Hou (2007), in order to capture the attractiveness of the first place of residence upon arrival. We use two variables based on the descriptive analysis by Reher and Silvestre (2011): the size of the municipality (the reference category reflects larger and more economically diversified centres with more active labour markets) and the region in which the municipality is located (the seven macro-regions vary, for example, by the importance of its economy and the existence of main points of entry).

The second model combines the described variables (or variations, as described in Table 3) to look at the residential patterns of the three categories of migrants *after* their corresponding migration trajectories in Spain (that is, at the moment of the survey). We also include the number of children below 16 coresiding with the respondent (which only can be estimated at the moment of the survey). This variable enables us to ascertain the sign of the impact of sex (we thank a reviewer for this remark). In these models, our ethnic residential concentration indicator acts as the dependent variable. Therefore,

[5] Although individuals from specific countries clearly predominate in most of our five groups, ethnic or cultural differences among individuals from different countries may be important in certain cases (the same occurs in the case of the ethnic residential concentration variable). We experimented with the possibility of disaggregating the main countries of origin (Morocco, Romania and Ecuador). Because of the complex estimation and interpretation of MNL models, as well as the modest number of individuals from a number of countries to construct the ethnic residential concentration variable, we finally decided to use a higher level of aggregation.

using binary logit models, we examine whether different migration trajectories in Spain tend to lead to residence away from individuals belonging to the same immigrant group—which may be referred to as 'self-selected segregation' (as in the analysis by Simon, 2010). In this model, endogeneity may affect some explanatory variables that (as the dependent variable) refer to the moment of the survey (as shown in Table 3), that is, homeownership and family structure indicators. However, as it will be shown in the results section, the sign and/or significance of these correlations are quite interesting in themselves.[6]

Two additional issues, related to the use of cross-sectional analysis, must be addressed. First, it has been argued that some individuals with high ('innate') migration propensities may tend to choose first municipalities of residence in the host country with specific characteristics. These initial location choices may influence further mobility decisions (Åslund, 2005; Damm, 2009; see also Reher and Silvestre, 2011). In the determinants of migration model, the regressions include an (unreported) 'prior migration to other countries' dummy variable to reduce potential bias due to unobserved individual heterogeneity. Second, both models (migration and residence) were also estimated with a restricted database of immigrants arriving after 2000, a context of economic expansion and relatively low unemployment rates, in order to reduce the possibility of selection bias due to return migration to the home country or re-emigration to other countries (as proposed by Sanromá *et al*., 2009). These models obtained similar results.

RESULTS

Determinants of Internal Migration Trajectories

[6] Both models include (unreported) control dummy variables to take into account that the design of the questionnaire does not allow us to construct the previous contact variable for 3,930 immigrants who arrived in Spain before 1990, as well as the ethnic residential concentration and first municipality of residence variables for 4,019 immigrants. Further regressions excluding these control dummy variables (and reducing the sample) led to similar results.

The main results of the MNL regression model are shown in Table 4 (regressions were estimated using Stata 11). The spatial controls are added in Model 2. The MNL model has three outcome categories: stayers, one-time movers and multiple movers. This article aims to contribute to the literature by focusing on the difference between one-time movers (the category in which previous research has usually focused) and the other types of migrants, particularly multiple movers. For this reason, we chose one-time movers as the reference category. Odds ratios (exponentiated value of coefficients, also called relative risks) are reported. Untransformed coefficients, confidence intervals, standard errors, correlations between explanatory variables, effects of unreported control variables, as well as regressions commented but not reported are available from the authors upon request.

[Insert Table 4 here]

With regard to demographic attributes, given an increase in the age at arrival, the odds for multiple movers relative to one-time movers decrease significantly by a factor close to one. For males, as compared to females, the odds for multiple movers are 1.11 times higher.

When we delve into the differences between one-time and multiple movers, we see that the significance and sign of the impact of socio-economic advancement and social and cultural ties variables tend to confirm the spatial assimilation theory. This is particularly clear in the case of education (for example, for the most educated the odds ratio of multiple movers are 1.24 times higher). Being unemployed and having spent more time in Spain also leads to further mobility (with the effect of the second variable decreasing slightly over time).[7] The latter result points to the importance of increasing duration of stay in the host society for acculturation and, by implication, the use of internal migration to assimilate spatially.

On the contrary, multiple movers are the least likely to be homeowners. Having Spanish citizenship does not show the expected sign. However, in further regressions (commented below) in which the analysis concentrated on 'economic' migrants, the

[7] The relationship between unemployment and mobility was not significant in previous models that not took into account differences between types of immigrants (see Reher and Silvestre, 2009).

effect of this indicator on subsequent mobility became positive and significant at the 5% level. Being married to a native at the moment of arrival in Spain reduces the propensity to make further movements. While in principle, this result is not in conformity with the spatial assimilation paradigm, it should be noted that being married, regardless of the origin of the spouse, tends to lead to lower internal migration rates, a result that is not uncommon in internal migration studies. It is important to contextualize these findings with the information provided by our next model (in Table 5), in which the intermarriage status is captured at the end of the migratory process rather that at the beginning. Among the rest of variables, two effects are in line with those presented so far. The immigrant is less likely to be a multiple mover if the reason to move to Spain was family regrouping or if he or she had previous contacts.

Following on the comparison between one-time and multiple movers, the rest of effects do not provide firm support for the spatial assimilation theory. The existence of ethnic concentrations and the characteristics of first locations do not seem to lead to subsequent mobility. On the other hand, great differences in the propensity to move are found among immigrants from two main groups, Africans and Latin Americans. The inclusion of world region of birth indicators seems to be a crucial variable for understanding patterns of mobility and residence among some groups of immigrants.

If we now turn to compare one-time movers and stayers, significant differences are also found regarding a number of variables. For example, two spatial redistribution processes are detected: from rural to urban areas and among regions. Among the rest of variables delineating stayers, it is worth noting that for homeowners the odds for stayers relative to one-time movers decrease significantly (an additional analysis was undertaken, whose results are not reported here due to constraints on the length of text, which suggests that stayers who do not move within their municipality of residence are those most likely to be homeowners).

We performed a series of estimations to verify the robustness of the results. First, with regard to the dependent variable, rather than a comparison of stayers and multiple movers, relative to the one-time movers category, we a) merged the categories of stayers with one-time movers and compared to multiple movers; b) merged the categories of internal migrants (one-time with multiple movers) and compared to stayers; c) removed the category of stayers and compared one-time to multiple movers.

The results (obtained from binary logit models) suggested that adding or deleting migration categories does not substantially affect the odds among the remaining alternatives.

Second, aimed at excluding young people who may not have completed their education, as well as non-economic movements, we concentrated on immigrants aged 25 and older and also on those aged 25-65 years old at the time of arrival in Spain. We obtained similar results. As explained before (with regard to Table 4), the main change affected the Spanish citizenship variable. Third, the models were estimated excluding education and unemployment, as variables potentially endogenous. The findings for the rest of variables were similar to those presented here.

Fourth, with regard to the construction of variables, we tested a less restrictive assumption in which an ethnic residential concentration was considered to exist if the percentage was higher than the national average (rather than at least twice, our strategy used so far). The results were coherent with those finally presented. The size of the effects tended to be lower.

A final unreported check was performed to confirm the legitimacy of not considering intra-municipal movements in our analysis of mobility.

Internal Migration Trajectories and Current Residential Concentration of Immigrants

The main results of the binary logit model are shown in Table 5. The main set of variables of interest is migration trajectory. In Model 3 it is shown that both one-time and multiple movers are less likely than stayers to reside in an ethnic concentration after the migration process. The relationship becomes strongly significant in Model 4, which includes the spatial controls. This finding may suggest that individuals move to avoid residing in ethnic concentrations, though other locational attributes appear to matter more than migration strategies when explaining the spatial concentration of immigrants.

[Insert Table 5 here]

The sign and often the significance of the effects of the rest of variables tend to be in line with the findings displayed in Table 4. That is, the characteristics of immigrants who are less likely to reside in ethnic concentrations at the end of the internal migration process (Table 5) are similar to the characteristics of immigrants who have previously moved within Spain (Table 4). For example, Table 5 shows that the most educated tend not to reside in ethnic concentrations. Table 5 also helps to confirm that being married to a Spaniard is associated with residing outside immigrant concentrations, as predicted by the spatial assimilation paradigm. It should be remembered that, as explained before, in this model it is not possible to obtain robust conclusions about causation in the case of family structure indicators. Nevertheless, our findings are consistent with recent research pointing to the abundance of low-educated immigrants in endogamous unions (Sánchez-Domínguez *et al*., 2011; Cortina and Esteve, 2012). Finally, Africans and Latin Americans, the most mobile immigrants according to Table 4, present the lowest probabilities of residing in ethnic concentrations in Table 5 (for Latin Americans the relationship is even negative).

As robustness checks, we again concentrated on immigrants aged 25 and older and also on those aged 25-65 years old, estimated the models excluding all variables potentially endogenous (homeownership and family structure), tested the same less restrictive assumption regarding the ethnic residential concentration variable, and restricted the database to those arriving after 2000. We obtained similar results.

CONCLUSIONS AND DISCUSSION

Two important discussions can be distinguished in the abundant research on the spatial redistribution of the foreign-born: the selective nature of movers and the location of immigrants in receiving countries. This article has contributed to extend a literature that tends to concentrate on one-movement internal migration of individuals rather than on migration trajectories. We have adopted a standard theoretical framework based on the spatial assimilation perspective and some of its main alternatives. We have used a new and major data source for Spain, a recent main country of destination for international migration flows.

Two main conclusions should be drawn from this article. First, with respect to the existence of significant differences between the characteristics of one-time movers (the most often studied type of migrant) and multiple movers, our findings tend to confirm spatial assimilation theory (Table 4). Relative to one-time movers, multiple movers tend to be younger, male, more educated, unemployed and non-homeowners. Multiple movers also tend to have the Spanish citizenship (if their reason to move is presumably economic), more experience residing in Spain and less established family and friends/recruiters ties. However, the case for alternative paradigms to the spatial assimilation model emerges when we see that strong and significant differences in the propensity to make further movements among Africans and Latin Americans remains even when the rest of variables are taken into account. The selectivity of multiple movers in terms of assimilation is also not confirmed when analyzing the effect of ethnic residential concentrations and the characteristics of the first place of residence in Spain. In our regressions, these indicators contribute mainly to explain the existence of differences between stayers and movers, but not between different types of movers. Marital status upon arrival confirms that immigrants are more likely to move if they are not married though, contrary to spatial assimilation theory, whether or not the spouse is a native does not appear to be important.

Second, regarding location choices, we have found that both one-time and multiple movers tend to avoid residing in ethnic concentrations (Table 5). The likelihood of residing in ethnic concentrations is slightly lower for multiple movers. The rest of characteristics of individuals who tend not to reside in ethnic concentrations are in line with our previous findings regarding the determinants of mobility (Table 4) or confirm previous research, including the differences observed by marital status in which immigrants with Spanish spouses are shown to be more likely not to reside in ethnic concentrations.

The lack of information on further indicators of assimilation (for example, discrimination), as well as the use of variables that are either impossible to estimate at different points of time or are highly aggregated, are important limitations to be borne in mind when interpreting our evidence. On the other hand, the ENI refers to a moment before the economic crisis in Spain that started in 2008 and has gather strength since

then. Further work (perhaps based on other sources) would be needed to understand the implications of the new situation.

This article points to the importance of disaggregating immigrants according to their type of internal mobility. The findings are in line with recent studies for European countries in arguing that the spatial assimilation perspective explain the rather complex integration experience only partially (e.g. Zorlu and Mulder, 2008; Bolt and van Kemper 2010; Tammaru and Kontuly, 2010). In our analysis, the propensity to make further movements is explained by several (but not all) types of indicators. The disposition to move more than once also varies among immigrants groups based on origin. Since the survey does not include natives, a study of overall residential concentration patterns is not possible. The focus on the immigrant population, however, enables us to confirm that, although other forces are also shaping location choices of the foreign-born, internal migration tends to lead to a progressive dismantling of the initial residential concentration patterns by group of origin so typical of international migration.

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TABLES

Table 1. Patters of internal migration among immigrants in Spain.

	Immigrants	%
Stayer	9,424	60.9
One-time mover	3,536	22.9
Multiple mover	2,505	16.2
All	15,465	100

Source: ENI.
Note: Immigrants 16 years and older. *Multiple mover* includes 679 individuals who, having changed municipality more than once, return to their first municipality of residence in Spain.

Table 2. Number of internal migrations among multiple movers

Internal migrations	Multiple movers	%
Two	1,460	61.7
Three	543	21.6
Four	227	8.9
> Four	205	7.7
All	2,505	100

Table 3. Description and summary statistics of dependent and explanatory variables

Variable	Description	Mean	SD	Min.	Max.
Inter-municipal migration trajectory	[Dependent variable in Table 4; explanatory variable in Table 5]				
Stayer	(Reference in Table 5)	0.61	0.49	0	1
One-time mover	(Reference in Table 4)	0.23	0.42	0	1
Multiple mover		0.16	0.37	0	1
Demographic attributes					
Age	Age at arrival in Spain	26.89	13.69	0	92
Sex	Male = 1	0.45	0.50	0	1
Socio-economic advancement					
No education		0.09	0.29	0	1
(Primary school)	(Ref.: completed)	0.17	0.38	0	1
Secondary school	Completed	0.52	0.50	0	1
University or above	Completed	0.22	0.41	0	1
(Employed)	(Ref.: employed since arrival in Spain	0.47	0.20	0	1
Unemployed, < one year	Less than one year unemployed since arrival in Spain	0.45	0.49	0	1
Unemployed, > one year	More than one year unemployed since arrival in Spain	0.08	0.27	0	1
[Table 4]					
Homeowner, upon arrival	Homeowner in Spain = 1	0.09	0.29	0	1
[Table 5]					
Homeowner, current	Homeowner in Spain = 1	0.36	0.48	0	1
Social and cultural ties					
Spanish citizenship	Acquisition of citizenship before arrival = 1	0.14	0.34	0	1
[Table 4]					
(Other marital status)	(Ref.)	0.76	0.43	0	1
Married to a Spaniard	Married to a Spaniard, upon arrival	0.04	0.20	0	1
Married to a Non-Spaniard	All other marriages, upon arrival	0.20	0.40	0	1
[Table 5]					
(Never married)	(Ref.)	0.34	0.48	0	1
Married to a Spaniard	Married to a Spaniard, current	0.21	0.40	0	1
Married to a Non-Spaniard	All other marriages, current	0.33	0.47	0	1
Other marital status	Widowed or divorced, current	0.12	0.32	0	1
[Table 5]					
Children < 16	No. of children < 16 at home, current	0.61	0.92	0	8
Years since arrival	Years since arrival in Spain	12.99	15.52	0	90
Social networks					
Family regrouping	Reason to move to Spain was family regrouping = 1	0.34	0.47	0	1
Previous contact	Reason to move to Spain was the existence of friends/recruiters = 1	0.60	0.49	0	1
[Explanatory variable in Table 4]					
Ethnic residential concentration	Percent of immigrants from the same world region of birth in the first municipality of residence > twice the national average = 1	0.21	0.41	0	1

Table 3. Continued

(Table 3. Continued)

Variable	Description	Mean	SD	Min.	Max.
[Dependent variable in Table 5]					
Ethnic residential concentration	Percent of immigrants from the same world region of birth in the current municipality of residence > twice the national average = 1	0.22	0.41	0	1
World region of birth					
(Developed Europe)	(Ref.: Eur-14, Iceland, Liechtenstein, Norway and Switzerland)	0.24	0.43	0	1
Rest of Europe		0.15	0.36	0	1
Africa		0.17	0.37	0	1
Latin America		0.40	0.49	0	1
Rest of the world		0.04	0.19	0	1
First municipality of residence in Spain	[Table 4]				
(Provincial capital or >50,000)	(Ref.: prov. capital or a large town)	0.47	0.49	0	1
10,000-50,000	Size of population	0.16	0.37	0	1
< 10,000	Size of population	0.10	0.31	0	1
Current municipality of residence in Spain	[Table 5]				
(Provincial capital or >50,000)		0.42	0.49	0	1
10,000-50,000		0.20	0.40	0	1
< 10,000		0.12	0.32	0	1
First macro-region of residence in Spain	[Table 4]				
(Madrid)	(Ref.: Autonomous Community)	0.12	0.33	0	1
Canary Islands	Autonomous Community,	0.03	0.18	0	1
Catalonia	Autonomous Community	0.09	0.28	0	1
Mediterranean seaboard	Autonomous Communities of Baleares, Valencia and Murcia	0.16	0.37	0	1
Ebro Valley	Autonomous Communities of Navarre, La Rioja and Aragon	0.09	0.28	0	1
South	Autonomous Communities of Castilla-La Mancha, Extremadura and Andalusia; Ceuta and Melilla	0.11	0.32	0	1
North	Autonomous Communities of Galicia, Asturias, Cantabria, Basque Country and Castilla-Leon	0.13	0.33	0	1
Current macro-region of residence in Spain	[Table 5]				
(Madrid)		0.12	0.33	0	1
Canary Islands		0.04	0.20	0	1
Catalonia		0.12	0.32	0	1
Mediterranean seaboard		0.24	0.43	0	1
Ebro Valley		0.14	0.34	0	1
South		0.16	0.37	0	1
North		0.18	0.38	0	1

Notes: Summary statistics refer to the entire sample (Number of observations = 15,465). Eur-14 refers to Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Sweden and United Kingdom (Spain is not included).
Source: ENI.

Table 4. Multinomial logit models of inter-municipal internal migration. Reference category: one-time mover (odds ratios).

	Model 1		Model 2	
	Stayer	Multiple mover	Stayer	Multiple mover
Demographic attributes				
Age at arrival	0.99	0.99**	0.99	0.99**
Male	1.02	1.11*	1.02	1.11*
Socio-economic advancement				
No education	1.18†	0.81†	1.17	0.80†
(Primary school)				
Secondary school	0.92	1.10	0.93	1.11
University	0.87†	1.24*	0.91	1.24*
(Employed)				
Unemployed, < one year	0.97	1.27***	0.95	1.27***
Unemployed, > one year	0.88	1.23*	0.88	1.22*
Homeowner	0.76*	0.54***	0.74*	0.55***
Social and cultural ties				
Spanish citizenship	0.92	0.78**	0.92	0.78**
(Other marital status)				
Married to a Spaniard	1.19	0.69*	1.21	0.67*
Married to a Non-Spaniard	1.11†	0.78**	1.13*	0.78**
Years since arrival	0.96***	1.05***	0.97***	1.05***
Years since arrival^2	1.00***	0.99***	1.00***	0.99***
Social networks				
Family regrouping	1.10*	0.83**	1.11	0.82**
Previous contact	1.14*	0.81**	1.17*	0.82*
Ethnic residential concentration	0.71***	1.05	0.85**	1.00
World region of birth				
(Developed Europe)				
Rest of Europe	0.99	1.02	1.01	0.99
Africa	1.07	1.56***	1.03	1.53***
Latin America	1.04	1.23*	1.13†	1.25**
Rest of the world	1.01	0.96	1.05	0.98
First municipality of residence in Spain				
(Provincial capital or 50,000 >)				
10,000-50,000			0.90†	0.92
< 10,000			0.51***	1.03
First macro-region of residence in Spain				
(Madrid)				
Canary Islands			1.66***	0.95
Catalonia			1.19*	0.92
Mediterranean seaboard			2.04***	1.09
Ebro Valley			2.50***	1.18
South			1.82***	1.36**
North			1.46***	1.09
Log Pseudolikelihood	-11,477.87		-11,333.66	
Pseudo R^2	0.186		0.196	

Table 4. Continued

(Table 4. Continued)

† p < .1; * p < .05; ** p < .01; *** p < .001

Notes: Immigrants 16 years and older. Reference categories for explanatory variables are in parenthesis. Number of observations = 15,093. Reductions in the number of observations (348 individuals) are related to mistaken or non-response to relevant questions in our analysis (age, education, homeownership or years since arrival). The regressions are estimated using heteroskedasticity-robust standard errors and include an intercept term.

Table 5. Binary logit models of ethnic residential concentration after inter-municipal migration trajectories. Dependent variable: current (November 2006-February 2007) residence in an ethnic concentration (odds ratios).

	Model 3	Model 4
Migration trajectory		
(Stayer)		
One-time mover	0.93	0.69***
Multiple mover	0.98	0.67***
Demographic attributes		
Age at arrival	1.00	1.00
Male	1.13*	1.09
Socio-economic advancement		
No education	1.67***	1.57***
(Primary school)		
Secondary school	0.91	1.02
University	0.57***	0.75**
(Employed)		
Unemployed, < one year	0.86**	0.95
Unemployed, > one year	0.89	0.93
Homeowner	1.14*	1.08
Social and cultural ties		
Spanish citizenship	0.58***	0.56***
(Never married)		
Married to a Spaniard	0.82*	0.80*
Married to a Non-Spaniard	1.21*	1.18*
Other marital status	1.09	1.17
No. of children < 16 at home	1.08*	1.05
Years since arrival	1.00	1.01*
Social networks		
Family regrouping	1.12†	1.10
Previous contact	1.19*	1.17†
World region of birth		
(Developed Europe)		
Rest of Europe	1.86***	2.32***
Africa	1.30***	1.84***
Latin America	0.06***	0.08***
Rest of the world	2.44***	5.31***
Place of residence		
(Provincial capital or 50,000 >)		
10,000-50,000		3.68***
< 10,000		8.53***
Macro-region of residence		
(Madrid)		
Canary Islands		1.75**
Catalonia		2.41***
Mediterranean seaboard		1.77***
Ebro Valley		1.16
South		4.53***
North		1.68***
Log Pseudolikelihood	-4,559.16	-3,968.18
Pseudo R^2	0.220	0.321

Table 5. Continued

(Table 5. Continued)

† p < .1; * p < .05; ** p < .01; *** p < .001

Notes: Immigrants 16 years and older. Reference categories for explanatory variables are in parenthesis. Number of observations = 11,191. Reductions in the number of observations (255 individuals) are related to mistaken or non-response to relevant questions in our analysis. The additional reductions (4,019) refer to the dependent variable (as explained in the text). The regressions are estimated using heteroskedasticity-robust standard errors and include an intercept term.