Legalization and Immigrant Homeownership:
Evidence from Spain

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Abstract

A significant homeownership gap still remains between natives and immigrants in most countries. Because of the many advantages of homeownership for immigrants and for the communities where immigrants reside, a variety of countries have tried to implement policies that facilitate immigrant homeownership. Many of these policies hinge on immigrants' legal status. Yet, owing to data limitations, we still know very little about its impact on immigrant homeownership. We address this gap in the literature and find that legalization raises immigrant homeownership by 20 percentage-points even after accounting for a wide range of individual and family characteristics known to impact housing ownership. This finding underscores the importance of legal status in immigrant assimilation –housing being an important indicator of immigrant adaptation, and the need for further explorations of the impact of amnesties on the housing markets of immigrant-receiving economies.

1. Introduction

Homeownership symbolizes the achievement of prosperity, stability and success and, as such, represents the attainment of many individuals' dreams in a wide range of countries. Immigrants, just like natives, pursue homeownership because of its many advantages, ranging from tax relief to building wealth via home equity, which, in turn, allows for home equity loans to finance education or business opportunities, as well as for a cash reserve (Chandrasekhar 2004). Yet, as noted by the literature on immigrant housing, a significant homeownership gap still remains between natives and immigrants (see, for instance, Coulson 1999, Borjas 2002, Painter *et al.* 2001, Diaz McConnell and Marcelli 2007, and Diaz McConnell and Redstone Akresh 2008 for the U.S. or Pereda *et al.* 2004 for Spain). In response to this gap, a variety of countries have tried to encourage homeownership. After all, homeownership has been credited with fostering good citizenship by promoting investments in social capital and local amenities as it creates incentives to invest in the quality of the neighborhood, which is capitalized in the value of the home (DiPasquale and Glaeser 1999). Nevertheless, although many of the policies hinge on the legal status of its residents, due to data limitations, the literature has been unable to carefully explore the link between legal status and immigrant homeownership.

This study addresses this gap in the literature with an analysis of the role played by legal status in explaining immigrant homeownership. The analysis makes use of a recent and fairly representative survey of immigrants in Spain –the *Encuesta Nacional de Inmigrantes* (ENI)– carried out by the Spanish Statistical Institute in 2007. In addition to the aforementioned survey characteristics, the ENI is unique in that it gathers information on the key variables needed for this analysis, *i.e.* homeownership and detailed information on immigrants' current legal status and last immigration status adjustment. As such, the analysis *first* differs from previous ones in

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the literature in that it examines the role played by immigrants' legal status in explaining their likelihood of owning a home using a recent and rather representative immigrant dataset. This is innovative because, to our knowledge, housing surveys do not include information on immigrants' legal status. Migrant surveys, on the other hand, often lack information on immigrant homeownership. In the few cases in which they include information on housing, they focus on specific immigrant groups, such as legal immigrants (as in the case of the *New Immigrant Survey* in the U.S.), thus impeding an analysis of the importance of being legal for immigrant homeownership. Finally, in the very rare cases of gathering data on both immigrants' legal status and homeownership, the surveys tend to be rather small and only representative of the migrant population in a particular city, *e.g.* Los Angeles, thus impeding any relevant analysis.

Second, the analysis takes advantage of the retrospective information collected in the survey to also explore how *immigration status adjustments likely resulting from an amnesty* impact immigrant homeownership. Because of the already discussed data limitations, the literature has not yet explored the impact of similar changes in immigration status on homeownership either. Yet, in addition to serving as a robustness check of the role played by legal status in explaining immigrant homeownership,[1] learning about the implications of legalization on immigrant housing ownership can shed some light on the consequences of amnesties for immigrant homeownership and, in turn, on the housing markets of immigrant-receiving economies adopting such measures. Given the growing share of individuals living in a country other than their country of birth worldwide,[2] the weight of the housing market in many developed economies and the use (or planned use) of amnesties by some of those nations,

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[1] This is accomplished by using *changes* in immigration status, as opposed to information on the *level* or current immigration status, to assess the impact of legality on immigrant homeownership.
[2] International migrants account for approximately 3 percent of the world's population (United Nations 2009).

including the U.S.,[3] understanding the role of legalization on immigrant homeownership is of foremost value.

Third, we focus on Spain, an interesting case study for various reasons. Spain has experienced an impressive growth of its immigrant population during the past 15 years. In 1991, the foreign-born population represented 1.2 percent of the Spanish adult population (or about 300,000 individuals). By January 2007, immigrants represented 10 percent of the Spanish population (approximately 4.5 million immigrants out of 45.2 million inhabitants) (*España en Cifras* 2008). Additionally, since 1985, Spain has granted a total of six amnesties (often called: *regularizations*). The magnitude of the increase in the immigrant population and the recent nature and frequency of the amnesties provide an ideal scenario for the analysis of how legalization can impact immigrant homeownership.[4] Although we use Spanish data, the findings shed some light on the impact that amnesties and alike policies might have on immigrant homeownership and on the housing markets of other developed migrant-receiving economies.

Finally, there are also other reasons as for why learning about the impact of immigrants' legal status in explaining their likelihood of homeownership is important that relate to inequalities in the housing market. In particular, homeownership rates among immigrants are significantly lower than those of natives in most countries. Like in the U.S., the homeownership gap between both groups in Spain is widening over time (Pereda *et al.* 2004). Furthermore, a significant proportion of immigrants in that country (32 percent) indicate that the main reason for residing where they do is the lack of proper documentation. Among the undocumented, that

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[3] For instance, in the U.S., Sen. Robert Menendez (D-N.J.) has just introduced the Comprehensive Immigration Reform Act of 2010 that includes, among other things, a fast path towards legalization for the 11 million of undocumented immigrants.

[4] Indeed, even if data were available, the last broadest amnesty program in the U.S. took place more than 25 years ago (1986 Immigration Reform and Control Act), thus questioning the applicability of findings based on those data nowadays.

fraction reaches 61 percent, hinting on the importance of immigrants' legal status when it comes to homeownership. The findings will provide us with a better understanding of housing inequalities among immigrants and of the mechanisms by which legality impacts immigrant homeownership.

2. The Link between Immigration Status and Homeownership

A large literature has examined homeownership, particularly for the U.S.[5] Sometimes from a theoretical perspective and other times empirically, these studies have shown that a variety of institutional factors (such as credit constraints), regional conditions (as in the cost of living and housing prices) and socioeconomic variables (*e.g.* age, educational attainment, marital status, income, wealth and, as we shall discuss, citizenship) play a crucial role in explaining homeownership.[6] Our purpose is to explore the role of yet another socioeconomic variable potentially critical for immigrant homeownership, as is the case of *legal status*.

In addition to learning about the impact of legal status on immigrant homeownership, we ask ourselves about the mechanisms through which legality may be impacting immigrant homeownership. Note, however, that a migrant's legal status is likely to be highly correlated to a variety of personal, family, and institutional characteristics shown to impact housing ownership regardless of nativity. For instance, undocumented immigrants may experience difficulties in securing a good loan due to their limited educational attainment, basic knowledge of financial institutions or lack of a good credit history. Similarly, undocumented immigrants may have lower homeownership rates due to their typically higher mobility. Expected mobility is a well

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[5] Some examples include Ihlanfeldt (1981), Rosenthal, Duca and Gabriel (1991), Ioannides and Rosenthal (1994), and Gyourko and Linneman (1996) to cite a few.
[6] Osili and Paulson (2008) note that, because of their origins and life experiences, many immigrants may also view financial institutions as untrustworthy. Their study, however, does not differentiate immigrants according to their legal status.

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documented driver of homeownership decisions because of the high transaction costs of moving from an owner-occupied home. The aforementioned factors are, however, important for homeownership regardless of the individual's nativity. Our intent is to gauge if, once we account for a wide range of characteristics known to affect homeownership for all individuals, legal status still has an impact on immigrant homeownership. That would be the case if, for instance, legal status impacts immigrant homeownership through the lack of proper tax-related documentation and well-documented wage slips when requesting a loan or as a result of not feeling secure enough to invest in property in the host country.

As noted earlier in the Introduction, we still know very little about the impact of legal status on immigrant homeownership or about the channels through which that impact takes place. That is because, owing to data limitations, the literature has instead focused on the role played by citizenship. In this vein, Coulson (1999), Clark (2003), Krivo and Kaufman (2004), Toussaint-Comeau and Rhine (2004) use survey data to compare homeownership rates, housing tenure and home equity for naturalized citizens versus noncitizens. McConnell and Marcelli (2007) is the only study that we are aware of that examines the impact of various immigration statuses (including being undocumented) on the likelihood of owning a home. However, their study relies on a sample of 380 Mexican adults residing in Los Angeles County Census tracts with a high a concentration of Mexican immigrants in 2001 and, as they note themselves, their findings cannot be extrapolated beyond that group. Furthermore, their analysis fails to address the endogeneity of immigrants' legal status, which could seriously bias the estimated impact of legalization on immigrant homeownership.

3.   Institutional Framework

3.1.   Background on Immigration to Spain

Before proceeding any further, it is important to provide an overview of immigration to Spain and, in particular, its history and recent characteristics. Until quite recently, Spain was a country of emigrants. However, the arrival of democracy in 1975, as well as the increase in unemployment that hit quite a few of the host countries of Spanish emigrants, marked a sudden change. Since the year 2000, Spain has displayed one of the largest rates of immigration in the world –three to four times as large as the average immigration rate in the U.S. In fact, between 2003 and 2008, the foreign-born population four-folded and, in 2009, it was estimated that 12 percent of Spanish residents have a foreign nationality. This new immigrant population is heavily concentrated in Madrid, the Mediterranean arc (*i.e.* Cataluña, Valencia, Murcia, and Andalucía), and the Balearic and Canary islands.

Spanish immigrants originate from all regions of the world. The vast majority of immigrants come from Latin America (approximately 36 percent), the European Union (EU-27, with 35 percent of all migrants), and North Africa (about 15 percent). The most common countries of origin for immigrants are: Morocco, Romania, Ecuador, Colombia, the U.K., and Colombia. Most Moroccans reside in Cataluña and Andalucía, Ecuadorians concentrate in Madrid, Cataluña and Murcia. People from the U.K. primarily reside in Alicante (Mediterranean arc) and Málaga (Andalucía), and half of Romanians reside in Madrid and Castellón (Mediterranean arc).

Finally, a few words about the regulation of immigration statuses are worth mentioning. Spain distinguishes between *citizens from the European Union* (EU henceforth) and *non-EU citizens*. Citizens from the EU are not required to get a visa to enter Spain since they already have the right to residency. In order for them to become Spanish residents, they need to apply

for a NIE (*Número de Identidad de Extranjero*) and a residency card (*Tarjeta de Residente Comunitario*). These are not urgent things for them to do, but they may need this documentation for some things, such as purchasing a home. However, both pieces of identification can be obtained while they are in Spain. More importantly, because citizens from the EU-25, Liechtenstein, Iceland, Norway or Switzerland are considered lawful immigrants, they are not inquired about their immigrant status or about past immigration status adjustments in the survey. Consequently, we focus our attention on immigrants originating from outside the EU for whom legality can be an issue –they can be lawful or undocumented. Therefore, unlike EU citizens, non-EU citizens are inquired about their current documentation and past immigration status adjustments.

In contrast to EU citizens, non-EU citizens coming to live in Spain are required to first obtain a visa. This also includes non-EU spouses and dependents.[7] Since visas are never issued in Spain, non-EU citizens planning to live in Spain must apply for a visa before leaving their country of residency through the Spanish consulate nearest to them. They cannot enter Spain with a tourist visa and then apply to stay as something else, *e.g.* a student, without first leaving the country and re-entering with the new visa. Also, it is generally not feasible to ask a friend at home to obtain a visa while the migrant is in Spain. And, in all instances, migrants have to get out of the Schengen Area in order to apply for a new type of visa.[8] (Most people know Schengen area, maybe we can remove footnote 8 or at least cut it down).

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[7] Migrants originating from a country that has a special agreement with Spain (those countries include North and South America, in addition to: Andorra, Australia, Brunei, Costa Rica, Croatia, Cyprus, the Czech Republic, Estonia, Gibraltar, Grenada, Hungary, Iceland, Israel, Japan, South Korea, Latvia, Lithuania, Malaysia, Malta, Monaco, New Zealand, Norway, Poland, San Marino, Singapore, Slovakia and Switzerland) can enter Spain without a visa and stay for up to 90 days in any six month period. After that time, they will need to go back home and obtain the appropriate visa.

[8] Spain is a signatory of the 1985 Schengen Agreement, which enables free circulation of residents within countries in the Schengen Area. A visa granted by one of those countries is valid in the whole Schengen Area. If a non-EU citizen migrant enters Spain with a tourist visa, they will be able to stay in Spain and/or in any other country in the

Because of the origin of most Spanish immigrants (many originating from EU country members) and the frequent number of amnesties,[9] the vast majority of Spanish immigrants are considered lawful or legal immigrants.[10] In our sample, approximately 86 percent of immigrants are considered legal (as shown in Table 1) since the survey took place just two years after the 2005 amnesty[11] and partially coincided with the entry of Romania and Bulgaria in the EU on January 1, 2007.[12]

3.2.   Immigrant Property Ownership and Access to Credit in Spain

In examining the impact of immigrants' legal status on their housing ownership, it is crucial to have an understanding of any institutional obstacles to immigrant property ownership ranging from regulations restricting immigrant property ownership to difficulties migrants may encounter in securing a good mortgage. Related to the first point, it is worth noting that there are no restrictions on foreign property ownership in Spain. Furthermore, a number of Spanish banks

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Schengen Area for up to 90 days during any 6-month period. In addition to Spain, the other parties to the Schengen Agreement are: Austria, Belgium, Denmark, France, Finland, Germany, Greece, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal and Sweden.

[9] There have been five regularizations approved by the Spanish government since the mid 1980s in the following years: 1986, 1991, 1996, 2000-2001 and 2005.

[10] In fact, many of them become citizens. In most cases, there is a Spanish residency requirement which can vary from 1 to 10 years. An exception, since January 2009, are individuals born outside Spain with a grandparent born in Spain, who can now request the Spanish citizenship without any residency requirement. Nevertheless, in most instances, there is a minimum legal residency requirement. For instance, those who did not exercise their right to their nationality by option within the established period of time, those under the care of a Spanish citizen or institution for at least two years, those married for one year to a Spanish national and not separated, or widows of a Spanish citizen need 1 year of residence. Individuals born in some Latin American countries, Andorra, Philippines, Equatorial Guinea, Portugal and Sephardic countries are required 2 years of residency. Political refugees are required 5 years of legal residency.

[11] It is estimated that, during the last amnesty, upto 700,000 undocumented immigrants regularized their status, reducing the number of undocumented immigrants at once and raising the percentage of legal immigrants in the country by 40 percent (see, for example, Dolado and Vázquez 2008, p. 39).

[12] As a result of the entry of Romania and Bulgaria into the EU, Romanians and Bulgarians –two large immigrant groups– could now enter the country with a valid passport or identity card and stay for longer than 3 months by simply registering themselves with the Office of Immigrants as other EU citizens. They were only subject to some employment restrictions for a period of two years.

lend money to both foreign-born non-resident and resident buyers. The documents required from both groups are, in fact, not that different from those required from natives.[13]

Because of the advantages of getting a mortgage from a Spanish bank[14] and the easy access to borrowing that immigrants enjoyed from some Spanish banks,[15] immigrants borrowed approximately 172 billion euros between 2005 and 2007 (IAMTN 2008). In turn, homes purchased by immigrants during the first half of 2007 exceeded one-third of the total figure (IAMTN 2008). Furthermore, according to Tecnocasa's fifth report on the Spanish housing market, immigrants borrow, on average, more than European natives (García and Raya 2007). Specifically, immigrants from Asia take out an average mortgage of 215,625 euros, South American immigrants take out mortgages for around 210,563 euros, and African immigrants take out smaller mortgages for approximately 167,892 euros. The average mortgage of a European citizen is 179,640 euros.

While immigrants are allowed to purchase Spanish property and have access to mortgage loans, they still report significant limitations when it comes to homeownership. As Pereda *et al.* (2004) note, up to 32 percent of immigrants indicate that the main reason for residing where they

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[13] In particular, *non-resident* buyers are required to present: (1) a copy of their passport, (2) information on their marital status, age, children, etc, (3) the last three salary pay statements or pension vouchers, (4) the last tax declaration made in the home country, (5) if they are employers or are self-employed: a copy of their tax returns and annual accounts for the last two fiscal years, (6) information about the property they plan to purchase, (7) a description of the current job situation, other incomes, investments, assets and debts, and (8) an *aval* (usually someone who agrees to pay in the event of you being unable to). Foreign-born residents have to present: (1) a copy of the residence permit, (2) information on their marital status, age, children, etc, (3) the last three salary pay statements or pension vouchers, (4) the last tax declaration made in Spain and a copy of their last year's property taxes, (5) if they are employers or are self-employed: a copy of their tax returns and annual accounts for the last two fiscal years, (6) information about the property they plan to purchase, and (7) a description of the current job situation, other incomes, investments, assets and debts. Finally, all foreign-born need to have a NIE (*Número de Identidad de Extranjero*), which is an ID number required to buy or sell a property in Spain. However, NIEs are easy to get by going to the department for foreign-born individuals in the nearest national police station, filling out an application form, and handing it along with a recent passport sized photo, a copy of the passport and the original passport.

[14] The latter include low interest rates, favorable write off conditions, easier for tax payers to sort taxes out, and inexpensive bank commissions caused by international bank transactions.

[15] A variety of banks, such as Santander Central Hispano, Caja Madrid and Bankinter offered services, such as flexible banking, language support, low interest rates, personalized customer services, and efficient online banking.

do is the lack of proper documentation.[16] This figure is not surprisingly higher (reaching 61 percent) among the undocumented (Pereda *et al*. 2004). After all, undocumented immigrants may have a harder time documenting credit worthiness and, in particular, presenting wage slips from past months. Alternatively, other mechanisms could be at play. For instance, undocumented immigrants may have a lower educational attainment, language proficiency, earnings and wealth than their legal counterparts. Likewise, they may expect to move in the near future if they do not feel secure enough or lack intentions of permanently settling in the country.

Overall, it seems that, for a variety of reasons, undocumented immigrants could display a lower likelihood of homeownership than legal immigrants. In what follows, we first examine if, indeed, that is the case and, if so, to what extent. Additionally, we attempt to identify some of the mechanisms that may be contributing to such a finding. In particular, we account for a wide range of immigrant personal and family characteristics known to affect homeownership decisions (*e.g.* educational attainment, language proficiency, earnings, family situation or expected mobility). As such, we are able to gauge if the role of legality in explaining immigrant homeownership derives from its correlation to some characteristics crucial for homeownership regardless of immigration status or, rather, from innate aspects to being an undocumented immigrant, such as difficulty in accessing credit due to lack of proper paperwork or feeling insecure about investing in property in the host country.

4. Data

The data used in this study come from a survey of immigrants –the *Encuesta Nacional de Inmigrantes* (ENI)– carried out by the Spanish Statistical Institute (or *Instituto Nacional de*

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[16] Some of the difficulties encountered by immigrants in securing a home are reflected as well in the number of people who co-sign the mortgage. As noted by García and Raya (2007), it is common to see the entire family, along with relatives and friends, as co-signers in the mortgage. In contrast, approximately 71 percent of Spanish nationals take the mortgage individually.

Estadística, INE) between November 2006 and February 2007. The objective of the ENI was to learn about the immigrant population at a national and at a regional (autonomous community) level. As such, the object of this study is the population of foreign-born individuals 16 years of age and older at the time of the interview who have either lived in Spain for at least one year or plan to do so. The survey was intended to allow for inferences on the most relevant immigrant populations.[17] But what is central to this study is the richness of the ENI with regards to a wide range of socio-demographic variables, including housing ownership, legal status and immigration status adjustments.

Our focus is on approximately 5,600 immigrants originating from countries outside the EU and for whom we have information on the variables included in the analysis.[18] The figures in Table 1 provide a description of our sample. About 46 percent of immigrants in our sample are male. On average, they are 34 years old, have been in Spain for approximately 6.6 years, and the vast majority (about 68 percent) are fluent in Spanish. Most migrants have a secondary education (57 percent) and up to 19 percent have a university education. In fact, about 16 percent of migrants have a degree from a Spanish institution (*Spanish Degree*). With regards to their family characteristics, we find that 73 percent are married, fifty-nine percent have children residing in Spain and about 42 percent plan to bring family members to Spain in the near future. Finally, a non-negligible fraction of immigrants report owning assets in their home country (about 31 percent) and monthly earnings average 569 euros (850 euros for those working).

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[17] A description of all the variables included in the analysis can be found in Table A in the appendix. For a detailed description of the survey, its design and sampling framework, please visit the following webpage: http://www.ine.es/daco/daco42/inmigrantes/inmigra_meto.pdf

[18] As noted in section 3.1., we focus our attention on immigrants originating from outside the EU and for whom legality can be an issue since they can be lawful or undocumented. That is why, unlike EU immigrants, non-EU immigrants are inquired about their current documentation and past immigration status adjustments.

Crucial to our study is the information regarding immigrants' homeownership and immigration status. As shown in Table 1, an average of 20 percent of immigrants in our sample report owning a home. Since they originate from outside the EU, these immigrants are also inquired about their immigration documents and about the time when they acquired them.[19] Immigrants in possession of a permanent or temporary residency permit, those with a student permit, and those with refugee or asylum status are classified as *legal* or documented. Approximately 86 percent of immigrants in our sample are considered legal (see Table 1).

In addition to the information regarding their *current* legal status, we exploit the information regarding the time when they acquired their present immigration status. The latter allows us to date the timing of their last immigration status adjustment, if any. We are particularly interested in *changes* in immigration status likely resulting from a past amnesty. We thus create a dummy variable that identifies immigrants who report having adjusted their immigration status without leaving the country and being currently legal. Since immigration status adjustments for individuals originating from outside the EU require them to leave the country and re-enter with a new visa, this new dummy is likely capturing many of those instances in which currently legal immigrants adjusted their immigration status without leaving the country via a generalized amnesty. Although, admittedly, our dummy is just a rough proxy for being an amnesty beneficiary, the analysis of how these individuals fare relative to other undocumented immigrants when it comes to homeownership is still of interest. As indicated by the figures in Table 1, about 17 percent of immigrants in our sample report having adjusted their immigration status without leaving the country and being currently legal.

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[19] Respondents can indicate being permanent residents, being temporary residents, having an EU residency permit, having a student permit, being refugee or asylum applicants, having filed for residency or not having filed any paperwork yet.

5.   Some Descriptive Statistics on Immigrants' Legal Status and Homeownership

Before proceeding any further, it is worthwhile to look at differences among immigrants in our sample according to their immigration status and homeownership. According to the figures in Table 2, lawful immigrants and those likely to have benefited from one of the amnesties granted by the Spanish government (henceforth: *legalized* immigrants) are more likely to be male, older and display longer Spanish residencies. Men are usually more likely to be the first ones to emigrate in the family and women are more likely to follow once a family member has settled and possibly become legal. Additionally, probably as a by-product of their age and longer residencies, lawful migrants and legalized immigrants are more likely to be married, have children residing in Spain or plan on bringing family to Spain in the near future. Likewise, they are more likely to have higher earnings.

Immigrants in our sample also differ by their homeownership status as shown by the figures in Table 3. Homeowners are more likely to be older, to have been in the country for a significantly longer period of time, to be more educated and to earn more than non-homeowners. In contrast, non-homeowners are more likely to have a spouse back home and report wanting to bring their families to Spain in the near future relative to homeowners who, instead, are more likely to be married and already have their children in Spain.

Is the likelihood of homeownership higher among legal immigrants? According to the figures in Table 4, the answer is yes. Undocumented migrants are significantly less likely to own their home than their lawful counterparts. Only 4 percent of undocumented immigrants report owning their home relative to 23 percent of legal immigrants. And, is the likelihood of homeownership higher among legalized immigrants than among their undocumented counterparts? According to the figures in Table 5, the answer is also affirmative. About 19

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percent of legalized immigrants report owning a home as opposed to 4 percent of undocumented immigrants. In sum, from a mere descriptive point of view, it looks as if legality is positively correlated with immigrant homeownership.

6.   Methodology

We adopt the basic model in much of the literature on housing ownership to examine the role played by legal status on immigrant homeownership and learn about the potential mechanisms driving such an impact (Borjas 2002). In particular, because the ENI is a cross-sectional data set, the following reduced form equation serves as a benchmark model for assessing the role that immigration status, along with that of various socioeconomic and regional factors, may play in explaining homeownership:

(1) $H_i = \alpha + X'_i\beta + \gamma Legal_i + \mu_r + \varepsilon_i$

The vector H_i measures immigrant homeownership (set equal to one if migrant i lives in an owner-occupied housing and zero otherwise) and $Legal_i$ indicates whether migrant i is considered a lawful immigrant. In order to assess whether the impact of being a legal immigrant originates from its correlation to other individual, family or regional characteristics crucial to natives and immigrants or, rather, from intrinsic features to being an undocumented immigrant (such as difficulty in accessing credit due to lack of proper paperwork or feeling insecure about investing in property in the host country), the vector X_i controls for a variety of socio-demographic characteristics of the ith migrant known to affect housing ownership. Specifically, the vector X_i accounts for the age, gender, educational attainment, Spanish fluency, current employment income and wealth –proxied by a dummy variable indicative of asset ownership in the home country– of the migrant. Additionally, X_i includes information on the duration of the migration spell and the migrant's future mobility plans intended to capture the migrant's

permanence in Spain. After all, the literature has shown that buying a home requires a commitment to a geographic region and lifestyle (Painter *et al.* 2001, Bradley *et al.* 2007). Also key for homeownership are family characteristics. Therefore, the vector X_i includes information on the migrant's marital status, a dummy variable indicative of whether s/he has a spouse back home, and the number of children living with the migrant in Spain. Finally, the vector μ_r includes information on the cost of living in the region where the migrant resides (a proxy for housing prices), along with a set of regional fixed-effects that account for differences in immigrant concentration, networks and homeownership rates across Spanish regions, regardless of their source. Overall, then, the estimated coefficient γ measures how being a lawful immigrant is correlated to the likelihood of homeownership.

In addition to examining the impact of being a lawful immigrant on homeownership, we explore the effect on homeownership of *changes* in immigration status likely arising from past amnesties. As noted in the Introduction, the analysis provides us with yet another venue to assess the importance of legality on homeownership while, more importantly, informing on the potential impact of amnesty-like policies on immigrant homeownership.[20] Because we lack information on the last immigration status of the migrant, as well as on whether they have benefited from one of the numerous amnesties granted by the Spanish government, we cannot unequivocally identify immigrants who adjusted from an undocumented to a legal status via one of the amnesties. However, as explained in section 4, we can create a dummy that serves as a proxy for being an amnesty beneficiary using information on the migrant's current immigration status, past immigration status adjustments and permanence in the country. Using that dummy,

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[20] Using *changes* in immigration status likely arising from an amnesty (as opposed to a dummy variable identifying the migrant's current legal status) not only enables us to examine the effect of changes in immigration status on the likelihood of homeownership, but also provides us with a robustness check of the role of legality in immigrant homeownership.

we explore the potential impact of legalization on immigrant homeownership by comparing the likelihood of homeownership among amnesty beneficiaries to that of their undocumented counterparts. Our second model is thus given by:

(2) $\qquad H_i = \alpha + X'_{it}\beta + \delta Legalized_i + \mu_r + \varepsilon_i$

where *Legalized* is a dummy variable equal to one for immigrants who report having adjusted their immigration status without leaving the country and being currently legal. Therefore, the estimated coefficient δ is intended to capture how becoming legal via an amnesty is correlated to the likelihood of homeownership.

Note, however, that unobserved individual level heterogeneity and omitted variables in our specifications of models (1) and (2) may result in $E(\varepsilon|Legal) \neq 0$ in the case of equation (1), and in $E(\varepsilon|Legalized) \neq 0$ in the case of equation (2).[21] As a result, the estimated coefficients: γ (δ), intended to capture the casual effect of being a lawful immigrant (or of legalizing via an amnesty) on the likelihood of homeownership, are likely to be biased. In order to address the potential endogeneity of the migrant's current immigration status and of past adjustments, we use instrumental variable methods in the estimation of equations (1) and (2).

Our instruments are all indicative of the close ties that Spain might have with other countries based on history, trade, or geography. Specifically, we use up to three dummy variables. Our first dummy (*i.e. colony*) identifies migrants originating from countries that were former Spanish colonies. Our second dummy (*i.e. trade partner*) identifies migrants originating

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[21] Some would argue that changes in immigration status via an amnesty are exogenous to the likelihood of homeownership. Nevertheless, because of their frequency, many immigrants came to expect these amnesties. As noted by researchers and a 2007 report by the Council of Europe (an organization of European states), the frequent amnesties may have had a "pull effect" (DeParle 2008), rendering the observed changes in immigration status endogenous.

from one of Spain's trading partners.[22] Finally, our third dummy (*i.e. non-distant country*) uses information on the distance in miles between the migrant's home country and Spain to identify immigrants originating from countries that are less than 1000 miles away.[23] Our instruments are all chosen based on their correlation with being a lawful immigrant and with the likelihood of becoming a legalized immigrant. Closer ties –characteristic of countries with colonial ties and trade partners– typically result in a more lenient regulation of immigration fluxes originating from each other. The latter may favor larger flows of immigrants, who in turn, may enjoy an easier time adjusting their immigration status. Likewise, immigrant flows and return migration depend on how geographically close the home and host countries are. Migrants from far away countries may have a harder time going back home than migrants originating from nearby countries. As a result, migrants from nearby or non-distant countries may be less likely to qualify for amnesties requiring a continued period of residency in the host country.

In addition to being significantly correlated to our two endogenous regressors, the proposed instruments need to be uncorrelated to the error term in the main regressions. Our identifying assumption is that our instruments do not affect immigrant homeownership other than via their potential link to immigrants' legal status or legalization. As is often the case with instruments, ours could be subject to potential shortcomings. For example, one potential problem is that the instruments may be correlated to individual characteristics that affect immigrant homeownership, such as income and wealth. Acknowledging that possibility, we control for educational attainment, language proficiency, current labor earnings and the

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[22] This information is made available online by the Spanish Ministry of Industry, Tourism and Commerce at: http://www.comercio.mityc.es under *Comercio Exterior de Mercancías – Desglose por Áreas Geográficas*, 2008.
[23] Distance from each country's capital to Madrid, the main port of entry for Spain's immigrant population, is computed using the following website: http://www.daftlogic.com/projects-google-maps-distance-calculator.htm

ownership of any property assets (a proxy for wealth) in the home country as factors that could possibly be correlated with the migrant's legal status.

A second possible problem is that our instruments may be correlated to the migrant's expected time and stability in Spain – expected mobility is a well documented driver of homeownership decisions because of the high transaction costs of moving from an owner-occupied home. Therefore, we include information on the time they have resided in Spain, on whether the migrants spouse is back in their home country, and on their future plans for permanent settlement and family reunification to account for the migrants' stability in the U.S..

Finally, a third possible threat is that immigrant homeownership may be a function of immigrants' origin. In that case, the instruments could be simply capturing country-level differences. However, it is worth noting that our instruments group countries according to a diversity of criteria (historical, economic and geographic) as opposed to just one. Additionally, we further address the existence of country-level variability by clustering the error terms at the country level.

In any event, we test for the exogeneity of our instruments from an econometric standpoint using standard over-identification test and confirm their suitability in that regard. We assume a linear functional form and estimate our models by OLS and by instrumental variable GMM methods for computational convenience. We also test for heteroscedasticity and reject the null of "no heteroscedasticity". Therefore, we correct the standard errors for heteroscedasticity, cluster the standard errors at the country-of-origin level and use an over-identification test that is robust in the presence of heteroscedasticity (Baum *et al.* 2003, 2007).

7.   Findings

7.1.   Legal Status and Its Impact on Immigrant Homeownership

Table 6 displays the results from the linear probability models examining the impact of immigrants' legal status on their homeownership likelihood when we do not correct and when we correct for the endogeneity of their immigration status. Confirming the descriptive statistics in Table 4, the OLS results suggest that lawful immigrants are significantly more likely to own a home than their undocumented counterparts. In fact, being a lawful immigrant appears to be the single most important determinant in the likelihood of owning a home in Spain. However, since the impact of being a lawful immigrant is likely to be biased in the OLS analysis, we re-estimate the LPM model using two-stage GMM and instrumenting for immigrants' legal status.

Before discussing our instrumental variable findings, we check that the instruments being used are significantly correlated to immigrants' legal status and that they can be considered exogenous from an econometric standpoint. As shown by the joint F-statistic at the bottom of Table 6, our instruments are significantly correlated to immigrants' legal status. First-stage results are displayed in Table B in the appendix. The two instruments we use in this specification are statistically significant at the 1 percent level in explaining immigrants' legal status. Specifically, as one would expect for immigrants originating from countries with which Spain has historical or economic ties, immigrants originating from former colonies –many of them in Latin America– and from trade partners appear more likely to be legal. As noted in the methodology section, our identifying assumption is that our instruments do not affect immigrant homeownership other than via their potential link to immigrants' legal status.[24] We examine whether this is the case using an over-identification test. Results are displayed at the bottom of

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[24] The latter may, in turn, facilitate access to credit by providing immigrants with the proper paperwork, such as wage slips from past months.

Table 6 and indicate that, conditional on the other instrument being valid, each instrument can be considered exogenous.

What are the key findings when we instrument for immigrants' legal status? According to the figures in the last two columns of Table 6, the probability of homeownership is 20 percentage-points higher for lawful immigrants than for undocumented immigrants. This result implies that an increase of 0.1 (or 10 percent) in the proportion of lawful immigrants would raise the likelihood of immigrant homeownership by 2 percentage-points from 20 percent to 22 percent (see Table 1) or by, approximately, 10 percent. The OLS estimates are, therefore, downward biased. This is plausible if we lack precise information on immigrants' wealth back home or on their job prospects in the home country and such omitted variables are possibly positively correlated with being a legal immigrant (Yang 2006). Wealthier immigrants, just as immigrants with better job prospects at home, may be better connected in their home countries and, consequently, they may have an easier time getting the proper immigration documentation. Yet, they may also be more likely to go back to their home countries and, therefore, less likely to purchase a home in Spain.

Additionally, it is worth noting that legal status remains a significant determinant of housing ownership even after we account for a wide range of socio-economic and personal characteristics, such as Spanish fluency, educational attainment, family characteristics, income, wealth and permanence in the country. In other words, the role played by legality on immigrant homeownership is not solely due to its correlation to other factors previously found to be crucial for homeownership regardless of immigration status. Rather, legality may be impacting immigrant homeownership by venues that can be considered innate to being an undocumented

immigrant, such as difficulty in accessing credit due to the lack of proper paperwork or insecurity about investing in property in the host country.

For the rest of the results we find that migrants who are married, have children in Spain, plan on bringing family to Spain in the near future (a signal of more stability in Spain), have assets back home –a proxy for wealth– or earn more are more likely to own a home. In contrast, older migrants –possibly at a different stage in the life-cycle, migrants with a spouse back home and migrants residing in pricier Spanish regions are less likely to own a home in Spain. Finally, migrants who have earned a Spanish degree exhibit a 3 percentage-point lower likelihood of owning a home than migrants without such a qualification. This may be the by-product of their recent labor market entry and, as such, their present disadvantage in acquiring a home until they have saved enough.

7.2. Legalization and its Impact on Immigrant Homeownership

The figures in Table 6 suggest that lawful immigrants enjoy a homeownership advantage over undocumented immigrants. A further robustness check of the importance of legality for homeownership would consist of identifying the impact of immigrants' legal status using information on *changes* in immigration status that arise from amnesties as a source of variation. From a policy point of view, such an analysis is particularly interesting for the evaluation of immigration policies that facilitate changes in legal status, such as amnesties or regularizations. Yet, as noted earlier in sections 4 and 6, the ENI does not gather data on immigrants' prior immigration status, nor does it allow us to directly identify those individuals who benefited from one of the several generalized amnesties granted between 1985 and the year 2005. Nevertheless, using what we know about Spanish immigration policy, respondents' current immigration status, last immigration status adjustment and continued presence in the country, we can create a

dummy variable to help us recognize changes in immigration status that likely took place under one of the amnesties. We do that by identifying currently legal immigrants who report having adjusted their immigration status without stepping out of the country since their first arrival. Because visas are never issued in Spain, all immigration status adjustments require non-EU citizens to step out of the country and re-enter with their new visas. Therefore, lawful immigration status adjusters from outside the EU who have not stepped out of the country are likely to have benefited from one of the numerous amnesties granted by the Spanish authorities between 1985 and 2005.

The figures in Table 7 reveal the OLS and instrumented results from examining the impact of our proxy of legalization on immigrant homeownership. The joint F-statistic at the bottom of Table 7 indicates that the instruments are highly correlated to the immigration status adjustment being examined.[25] Additionally, the over-identification test reveals that, conditional on the other instruments being valid, each instrumental variable can be considered exogenous. Overall, the most important finding from Table 7 is the fact that legalization does appear to facilitate immigrant homeownership. The impact of legalization prevails after accounting for a variety of socio-economic and personal characteristics likely correlated to a change in legal status, thus emphasizing the importance of legality itself for housing ownership. Furthermore, the result corroborates the findings from Table 6 regarding the importance of legality in aiding immigrant homeownership. In particular, legalized immigrants appear to enjoy a 20 percentage-point higher likelihood of homeownership than their undocumented counterparts. Hence, an increase of 0.1 (or 10 percent) in the share of legalized immigrants would raise the likelihood of

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[25] Table C in the appendix reports the first-stage results of the two-stage LPM. Immigrants originating from more distant countries (more likely to live in Spain for a continued period of time as required by most amnesties), as well as immigrants from countries with which Spain had colonial or trade ties, are all more likely to have legalized via an amnesty.

homeownership among legalized and undocumented immigrants in our sample by 2 percentage-points. Since the average homeownership rate for this group of immigrants is in the order of 12 percent, the effect would correspond to a non-negligible increase in their homeownership of approximately 17 percent.

Finally, we continue to find that migrants who are married, have children in Spain or have assets back home are more likely to own a home. In contrast, older migrants at a different stage in the life-cycle, migrants with a spouse back home and migrants residing in pricier Spanish regions are less likely to own a home in Spain.

8.   **Discussion and Summary of Findings**

A significant homeownership gap still remains between natives and immigrants in most countries. Because of the many advantages of homeownership for immigrants and for the communities where immigrants reside, a variety of countries have tried to implement policies that facilitate immigrant homeownership. Many of these policies hinge on immigrants' legal status. Yet, owing to data limitations, we still know very little about its impact on immigrant homeownership.

In this study, we address this gap in the literature with an analysis of the impact that immigrants' legal status may have on their likelihood of homeownership using a recent Spanish data set on immigrants. The *Encuesta Nacional de Inmigrantes* (ENI) is unique in that it gathers recent data on homeownership and immigration status information in a country that has experienced a significant immigrant boom over the past two decades and where amnesties have been frequently implemented. We find that legalization raises immigrant homeownership by 20 percentage-points. This is true whether we measure the impact of legality on immigrant homeownership using a dummy indicative of whether the migrant is a lawful immigrant or using

a proxy for legalization under an amnesty. Furthermore, the significance of legality persists even after accounting for a multiplicity of socioeconomic factors that could possibly be driving the impact of immigration status on housing ownership, such as income requirements to secure a loan or expected mobility. As such, other unobserved factors inherent to being an undocumented immigrant, such as difficulty in gathering the proper paperwork for a loan or feeling insecure about investing in property in the host country are likely to be at the source of the importance of legality for immigrant homeownership.

In sum, while legality is not a requirement to gain immediate access to the Spanish universal healthcare and public educational system, it is an important determinant of homeownership. This finding underscores the importance of immigrants' legal status in their assimilation to the host country –housing being an important indicator of immigrant adaptation. Given the growing share of international migrants worldwide, the importance of housing markets in most developed immigrant-receiving nations, and the use of amnesties or "fast paths towards legalization" by many of those countries, gaining an understanding of the role of legalization on immigrant homeownership can shed some light on the implications of such policies on their housing markets.

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Table 1
Variable Means and Standard Deviations

Variables	Mean	S.D.
Legal	0.86	0.35
Legalized	0.17	0.38
Homeownership	0.20	0.40
Male	0.46	0.50
Age	34.40	10.63
Time in Spain	6.55	5.49
Fluent in Spanish	0.68	0.47
No Education	0.00	0.07
Primary Education	0.23	0.42
Secondary Education	0.57	0.50
Tertiary Education	0.19	0.39
Spanish Degree	0.16	0.36
Married	0.73	0.44
Spouse Back Home	0.08	0.27
Children in Spain	0.59	1.00
Plans to Bring Family to Spain	0.42	0.49
Has Assets in Home Country	0.31	0.46
Earnings (including zeros)	568.69	590.02
Regional CPI	161.80	11.10
Region 1	0.07	0.25
Region 2	0.04	0.19
Region 3	0.02	0.15
Region 4	0.07	0.26
Region 5	0.04	0.18
Region 6	0.03	0.16
Region 7	0.03	0.17
Region 8	0.04	0.18
Region 9	0.15	0.36
Region 10	0.07	0.26
Region 11	0.03	0.16
Region 12	0.02	0.14
Region 13	0.13	0.34
Region 14	0.10	0.30
Region 15	0.08	0.28
Region 16	0.04	0.19
Region 17	0.04	0.19

Table 2
Variable Means by Immigration Status

Variables	Legal	Undocumented	t-statistic (Legal vs. Undocumented)	Legalized	t-stastistic (Legalized vs. Undocumented)
Male	0.47	0.41	3.19***	0.48	3.17***
Age	34.82	31.88	7.96***	33.99	4.47***
Time in Spain	7.06	3.47	21.20***	5.80	11.51***
Fluent in Spanish	0.68	0.72	-2.65***	0.82	5.41***
No Education	0.004	0.006	-0.61	0.00	-0.91
Primary Education	0.23	0.26	-1.93**	0.25	-0.32
Secondary Education	0.57	0.59	-1.40	0.59	-0.22
Tertiary Education	0.20	0.14	4.39***	0.16	0.87
Spanish Degree	0.16	0.12	4.12***	0.15	2.05**
Married	0.76	0.60	9.60***	0.66	3.24***
Spouse Back Home	0.084	0.081	0.30	0.06	-1.67
Children in Spain	0.63	0.35	10.18**	0.58	6.15***
Plans to Bring Family to Spain	0.43	0.33	6.05***	0.44	4.84***
Has Assets in Home Country	0.31	0.28	1.89**	0.27	-0.77
Earnings (including zeros)	595.02	409.90	10.96***	626.57	9.87***

Notes: The hypothesis being tested is H_0: [mean (legal or, in the second case, legalized) – mean (undocumented)] = 0. The alternative hypothesis is: H_A: [mean (legal or, in the second case, legalized) – mean (undocumented)] ≠ 0. *** Signifies statistically different from zero at the 1% level or better and **at the 5% level or better.

Table 3
Variable Means by Homeownership

Variables	Homeowner	Not a Homeowner	t-statistic
Male	0.47	0.46	0.89
Age	36.08	33.97	7.32***
Time in Spain	9.06	5.90	16.30***
Fluent in Spanish	0.66	0.69	1.37*
No Education	0.005	0.004	0.34
Primary Education	0.21	0.24	-1.83**
Secondary Education	0.56	0.58	-0.69
Tertiary Education	0.22	0.19	2.62***
Spanish Degree	0.14	0.16	-2.03**
Married	0.87	0.70	15.33***
Spouse Back Home	0.03	0.10	-9.88***
Children in Spain	0.98	0.49	14.72***
Plans to Bring Family to Spain	0.38	0.43	-3.34***
Has Assets in Home Country	0.33	0.30	2.16**
Earnings (including zeros)	688.13	537.95	7.28***

Notes: The hypothesis being tested is H_0: [mean (homeowner) – mean (not a homeowner)] = 0. The alternative hypothesis is: H_A: [mean (homeowner) – mean (not a homeowner)] $\neq$ 0. *** Signifies statistically different from zero at the 1% level or better, **at the 5% level or better and *at the 10% level or better.

Table 4
Homeownership by Legal Status

Homeownership	Proportion	t-statistic
Undocumented	0.04	-
Legal	0.23	22.50***

Notes: The hypothesis being tested is H_0: [mean (legal) – mean (undocumented)] = 0. The alternative hypothesis is: H_A: [mean (legal) – mean (undocumented)] ≠ 0. *** Signifies statistically different from zero at the 1% level or better.

Table 5
Homeownership by Legalized Status

Homeownership	Proportion	t-statistic
Undocumented	0.04	-
Legalized	0.19	10.78***

Notes: The hypothesis being tested is H_0: [mean (legalized) – mean (undocumented)] = 0. The alternative hypothesis is: H_A: [mean (legalized) – mean (undocumented)] ≠ 0. *** Signifies statistically different from zero at the 1% level or better.

Table 6
OLS and Two-Stage Results for the Likelihood of Homeownership

Variables	OLS		Two-Stage	
	Coefficient	Robust S.E.	Coefficient	Robust S.E.
Legal	**0.073*****	**0.013**	**0.199*****	**0.044**
Male	-0.001	0.007	0.001	0.0004
Age	-0.003***	0.001	-0.003***	0.0004
Time in Spain	0.008***	0.006	0.003	0.005
Time in Spain Squared	-0.0003	0.0002	-0.003**	0.005
Fluent in Spanish	0.009	0.015	0.007	0.009
Secondary Education	-0.004	0.007	-0.006	0.009
Tertiary Education	0.001	0.012	-0.008	0.013
Spanish Degree	-0.021	0.014	-0.028**	0.012
Married	0.049***	0.007	0.042***	0.008
Spouse Back Home	-0.064***	0.012	-0.062***	0.012
Children in Spain	0.032***	0.010	0.031***	0.006
Plans to Bring Family to Spain	0.007	0.008	0.0006**	0.008
Has Assets in Home Country	0.017	0.010	0.017**	0.009
Earnings	3.78E-05***	7.61E-06	3.28E-05***	7.41E-06
Regional CPI	-0.027***	0.003	-0.027***	0.002
Number of Observations	5598		5573	
Correlation of Instruments with Endogenous Variable:				
F-test statistic	-		94.18***	
Prob > F	-		0.000	
Over-identification Test				
Hansen J-statistic	-		0.241	
Chi-square P-val	-		0.624	

Notes: The regressions include a constant as well as a set of regional dummies. Observations are clustered at the country level. *** Signifies statistically different from zero at the 1% level or better, **at the 5% level or better and *at the 10% level or better.

Table 7
OLS and Two-Stage Results for the Likelihood of Homeownership

Variables	OLS		Two-Stage	
	Coefficient	Robust S.E.	Coefficient	Robust S.E.
Legalized	**0.052***	**0.010**	**0.195***	**0.047**
Male	-0.009	0.006	-0.010	0.011
Age	-0.002***	0.001	-0.002***	0.001
Time in Spain	0.008*	0.005	-0.006	0.007
Time in Spain Squared	-1.25E-04	7.74E-05	4.43E-05	7.93E-05
Fluent in Spanish	0.009	0.018	-0.012	0.015
Secondary Education	0.000	0.007	-0.004	0.012
Tertiary Education	0.001	0.025	-0.015	0.021
Spanish Degree	-0.018*	0.010	-0.018	0.020
Married	0.023***	0.008	0.020*	0.011
Spouse Back Home	-0.048***	0.013	-0.042**	0.017
Children in Spain	0.024*	0.013	0.016*	0.008
Plans to Bring Family to Spain	0.015**	0.007	-0.001	0.013
Has Assets in Home Country	0.031*	0.018	0.034***	0.013
Earnings	3.60E-05***	1.43E-05	1.66E-05	1.55E-05
Regional CPI	-0.029***	0.006	-0.032***	0.006
Number of Observations	1758		1747	
Correlation of Instruments with Endogenous Variable:				
F-test statistic	-		29.26***	
Prob > F	-		0.000	
Over-identification Test				
Hansen J-statistic	-		3.847	
Chi-square P-val	-		0.146	

Notes: The regressions include a constant as well as a set of regional dummies. Observations are clustered at the country level. *** Signifies statistically different from zero at the 1% level or better, **at the 5% level or better and *at the 10% level or better.

Appendix Tables

Table A
Variables and Definitions

Variables	Definitions
Legal	Dummy variable equal to 1 for immigrants in possession of a permanent or temporary residency permit, a student permit, or those with refugee or asylum status.
Legalized	Dummy variable equal to 1 for immigrants who report having adjusted their immigration status without leaving the country and being currently legal.
Homeownership	Dummy variable equal to 1 for immigrants who report owning the dwelling where they live in.
Male	Gender dummy.
Age	Age of respondent.
Time in Spain	Number of years they have lived in Spain.
Fluent in Spanish	Dummy variable equal to 1 for immigrants who report having Spanish as their native tongue or indicate knowing, understanding, speaking, reading and writing in Spanish.
No Education	Dummy variable equal to 1 for immigrants without an education.
Primary Education	Dummy variable equal to 1 for immigrants with some primary education or a completed primary education.
Secondary Education	Dummy variable equal to 1 for immigrants with some primary education or a completed secondary education.
Tertiary Education	Dummy variable equal to 1 for immigrants with some primary education or a completed tertiary education.
Spanish Degree	Dummy variable equal to 1 for immigrants with a degree from a University in Spain.
Married	Marital status dummy.
Spouse Back Home	Dummy variable equal to 1 for immigrants who indicate having a spouse back in their home countries.
Children in Spain	Dummy variable equal to 1 for immigrants who indicate having children in Spain.
Plans to Bring Family to Spain	Dummy variable equal to 1 for immigrants who indicate planning on bringing their families to Spain in the near future.
Has Assets in Home Country	Dummy variable equal to 1 for immigrants who indicate owning a dwelling back in their home countries.
Earnings (including zeros)	Labor earnings in 2007 euros.
Regional CPI	Regional consumer price index (downloadable from www.ine.es).
Regional Dummies	Dummy variables equal to 1 for each of the 17 regions included in the analysis.

Table B
First Stage Results from Two-Stage LPM: Likelihood of Being Legal

Instruments	Coefficient	Robust S.E.
Colony	0.036***	0.013
Trade Partner	0.206***	0.016
Regression Fit Statistic		
Number of Observations	5573	
F-statistic	50.91	
Prob > F	0.000	

Notes: The regressions contain all the same controls shown in Table 6, including the constant and regional dummies. Observations are clustered at the country level. *** Signifies statistically different from zero at the 1% level or better.

Table C
First Stage Results from Two-Stage LPM: Likelihood of Legalization

Instruments	Coefficient	Robust S.E.
Colony	0.150***	0.042
Trade Partner	0.168***	0.025
Non-distant	-0.402***	0.055
Regression Fit Statistic		
Number of Observations	1747	
F-statistic	41.28	
Prob > F	0.000	

Notes: The regressions contain all the same controls shown in Table 7, including the constant and regional dummies. Observations are clustered at the country level. *** Signifies statistically different from zero at the 1% level or better.