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Ethnic Identity and Immigrant Homeownership

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Abstract

Immigrants are much less likely to own their homes than natives, even after controlling for a broad range of life-cycle and socio-economic characteristics and housing market conditions. This paper extends the analysis of immigrant housing tenure choice by explicitly accounting for ethnic identity as a potential influence on the homeownership decision, using a two-dimensional model of ethnic identity that incorporates attachments to both origin and host cultures. The evidence suggests that immigrants with a stronger commitment to the host country are more likely to achieve homeownership for a given set of socioeconomic and demographic characteristics, regardless of their level of attachment to their home country.

JEL Classification: R21, F22, J15, Z10
Keywords: ethnicity, ethnic identity, immigration, immigrant integration, homeownership

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Introduction

The economic success of immigrants is of vital importance in every immigration country and in Germany in particular, where around 12 per cent of residents are foreign born (OECD, 2006). Many studies have analyzed the economic performance of immigrants, both in Germany and elsewhere, gauged through labor market outcomes - labor force participation and earnings - (Borjas, 1985; Chiswick, 1978; Constant, 1998; Bauer, et al., 2005), but also through focusing on savings and wealth (Chiswick, 1978; Cobb-Clark and Hildebrand, 2002; Dustmann, 1997). Another important indicator of economic success is homeownership. Homeownership is not only an expression of long-term economic progress, wealth accumulation and financial well-being, but for most people, it also represents a symbol of achieving high living standards, a symbol of success and status, and an asset that they can bequeath to their children. It is also linked to better physical and psychological health, greater life satisfaction, as well as improved educational, behavioral and social outcomes for children (Aaronson, 2000; Green and White, 1997; Haurin et al., 2002; Rohe et al., 2001). In European countries like Germany, owning a house is a particularly strong indicator of economic success and life satisfaction, and hence for immigrants an even stronger indicator of affiliation with the host society.

Homeownership in Germany – hovering about 42% - is among the lowest in Europe and much lower than in the US (about 63%). In all immigrant countries, although homeownership rates vary by country of origin, immigrants have lower homeownership rates than natives. Immigrant homeownership is paramount in the development of immigrants' economic and social incorporation and advancement in the host country; it represents a stepping-stone in their settlement process. Especially for immigrants who are "assimilated", homeownership attainment offers them access to neighborhoods with desirable characteristic (Alba and Logan, 1992).

Recently, immigrants' role on the housing market and their contribution to the revitalization of dilapidated urban neighborhoods and business areas has gained much attention in

the US. As immigrants take an increasing share in the housing market[1] many real estate agencies now try to tap into this demand by offering courses on how to reach the immigrant home buyer, paying special attention to cultural differences. In Germany, anybody who has a valid passport and the purchase funds for the investment (about 30-40 per cent of the price) can buy a house and finance the rest.

Previous analyses of immigrant homeownership have found large gaps between native and immigrant homeownership rates, not all of which can be explained by standard socioeconomic and demographic variables. Some studies have examined the influences of ethnic enclaves on immigrant homeownership (Borjas, 2002), while others have posited the existence of 'cultural influences', or have examined the role of race and ethnicity in determining homeownership outcomes (Painter et al., 2004). Another branch of the literature finds that 'assimilation', measured by duration of residence, impacts on housing quality outcomes and homeownership status (Constant et al., 2006b; Friedman and Rosenbaum, 2004; Myers and Lee, 1996).

This paper extends on previous work by explicitly accounting for ethnic identity, rather than simply ethnic origin or duration of residence, as an important influence on the immigrant homeownership decision. Building on the *ethnosizer*, a two-dimensional measure of ethnic identity suggested by Constant et al. (2006a), we investigate how various forms of immigrant adaptation with respect to the cultures of the origin and host countries affect the housing decision. In particular, we study the role of individual's degree of assimilation (the complete take-over of the native ethnic identity), integration (the joint commitment to both ethnic identities), separation (the focus on the ethnic identity of the home country) and marginalization (detachment from either the dominant culture or the culture of origin). Assimilated or integrated households are more likely to own a house than those separated or marginalized.

[1] One of the biggest U.S. buyers of mortgages, Fannie Mae, said that immigrants are a major source of new housing demand in the years and decades to come.

Homeownership Determinants

Economic and demographic theories suggest a range of factors that will influence the probability of homeownership, for the native-born and immigrants alike. The extent to which people can satisfy their housing needs and preferences is then determined by a range of socio-economic characteristics, such as employment status, income, education, marriage status and family composition, which influence access to information and freedom of choice of location. For immigrants specifically, a crucial determinant of their homeownership decision is their years of residence in the host country that increases knowledge of the housing market, as well as their country of origin. For a given set of life-cycle and socioeconomics characteristics, the probability of owning a home is also influenced by housing market conditions, such as rent levels, property prices, interest rates, new construction and other factors that impact on housing availability and affordability (Clark et al., 1997). These three broad groupings largely determine homeownership for the general population and as such, can justifiably be expected to influence the probability of immigrants achieving homeownership. Important factors for immigrants are also access to financing, the availability of a network of family and friends and segregation or discrimination. However, even after accounting and controlling for all these important factors, there are still gaps in homeownership rates among ethnic groups, and immigrants and natives in general.

To date, the majority of research in this area has focused on the gap between natives and immigrants in achieving homeownership. By and large, these studies find that there is a significant gap between the homeownership decisions of natives and immigrants, with native-born households much likelier to own their own homes, even after controlling for a broad range of life-cycle and socio-economic characteristics and housing market conditions.

For example, comparing Hispanic households in the United States with their Anglo counterparts, Coulson (1999) finds that being an immigrant substantially reduces the probability of being a homeowner, even after controlling for income, age, education, number of children, marital

status and housing market conditions such as price, urban location and vacancy rates. However, this negative effect is strongest for new immigrants and diminishes with duration of residence, implying that immigrants assimilate to native homeownership status to some degree over time, a result which is confirmed in more recent analysis (Myers et al., 2005). Myers et al. (1998) also show that temporal factors such as cohort membership, aging, and duration of U.S. residence are strong predictors of homeownership attainment of native-born, non-Hispanic whites, native-born Mexican Americans.

Similarly, studying 12 major race and ethnic groups in the United States in 1980, Alba and Logan (1992) find that immigrants who were more assimilated (as measured by language proficiency) were more likely to own a home. Krivo (1995), in her homeownership study between Hispanics and whites in 1980 in the United States (immigrants and native born), also finds "assimilation" as an important explanatory variable.

Borjas (2002) contends that, historically, immigrants have been able to achieve "assimilation" or closeness to natives in the housing markets that they have not been able to achieve in the labor market. However, he finds that a large homeownership gap between natives and immigrants persists even after controlling for a range of socioeconomic and household characteristics. He finds that this gap is reduced when nation of origin and location of residence are accounted for, and that the presence of ethnic enclaves increases the probability that immigrant households own their own residence. The positive effect of ethnic enclaves on homeownership has also been found in studies of Chinese-American home-ownership (Painter et al., 2004). Moreover, there is evidence to suggest that regardless of enclave effects, race and ethnicity are an important determinant of housing outcomes in and of themselves (Friedman and Rosenbaum, 2004).

Trends in immigrant homeownership in Canada differ from those in the US. In previous decades, immigrants to Canada had higher homeownership rates than native born Canadians, but this trend has reversed in the last twenty years. In analyzing this decline, Haan (2005) finds that the

standard economic model of housing tenure is not sufficient to explain the changes in immigrant homeownership rates over time.

The majority of empirical analysis of this kind has been undertaken with data from North America. The few existing studies in this field that use German data have analyzed homeownership determinants for native Germans (Clark et al., 1997) and have examined the housing quality gap between immigrants and natives (Drever and Clark, 2002). However, with the exception of Sinning (2006), scant attention has been paid to the question of immigrant homeownership in Germany. These few studies are largely consistent with the findings from the Unites States in that that there is a long-standing gap between the housing quality of immigrants and natives; and that immigrants are less likely to own their place of residence than the native born, even after controlling for a number of socio-economic and demographic variables.

It is clear that housing tenure outcomes for immigrants differ from those of natives in a way that can not be explained within a standard framework that accounts for only socioeconomic, demographic and housing market characteristics. The existing evidence suggests that ethnicity and race may have a role in determining housing outcomes, as do factors such as location in ethnic enclaves. Some studies from the US find that assimilation, measured by years since migration, help to close the gap between natives and immigrants, which is interpreted as showing that adapting to the host country culture improves homeownership outcomes. Haan (2005) refers to ‘cultural differences’ between ‘old’ and ‘new’ immigrants who may have systematically different ‘housing appetites’. However, aside from examining the effects of country of origin, race, and years since migration, there has generally been little headway made in directly examining the relationship between ethnic identity and housing tenure status.

Using a two-dimensional model of ethnic identity, following Constant et al. (2006a), that incorporates attachments to both origin and host cultures, this paper aims to bridge this gap. The concept of ethnic identity as used here must be distinguished from ‘ethnicity’, which is taken to

denote country of birth and cultural ancestry. In contrast, ethnic identity is a dynamic concept that measures the balance of commitments to both the origin and host cultures.

The possibility of contemporaneous commitment to two cultures is well established in the social sciences, where the dynamics of ethnic identity and the heterogeneous effects of continuous contact with two distinct cultural groups have long been acknowledged (Glaeser, 1958; Sommerlad and Berry, 1970). The concept of 'acculturation' (Berry, 1980; Berry et al., 1987) defines a process cultural change which incorporates the maintenance or loss of the culture of origin and gaining of the culture of the new group. Acculturation thus defined may follow many paths and lead to different permutations of commitments to the origin and host countries. This differs fundamentally from the assimilation model inherent to many previous quantitative studies in the homeownership literature, as it allows not just a linear trade-off between origin and host cultures, but a diverse range of contemporaneous commitments to either, both or neither culture.

This two-dimensional concept of ethnic identity allows for four broad categories of cultural attachments: *assimilation*, a strong commitment to the host culture and full withdrawal from or cultural submersion of the culture and society of origin; *integration*, a strong dedication and commitment to both the host and origin societies; *separation*, an exclusive commitment to the origin, combined with weak involvement with the host culture; and, *marginalization*, a state of detachment from both the host and origin countries.

It seems likely that the balance of cultural attachments will affect economic success in the host country. An acquisition of host country language skills and cultural understanding and knowledge are likely to provide greater employment opportunities, broader social networks, better access to information and the knowledge required to succeed in the host country. It is also possible that integration, as opposed to assimilation, will provide even greater benefits, as knowledge of two languages and access to two distinct cultural networks broadens employment opportunities.

Clearly, if some states of ethnic identity lead to better employment outcomes and higher income, they will increase the probability of homeownership. That ethnic identity should affect homeownership directly, in addition to through its effects on income, relies on the assumption that homeownership is more than a manifestation of wealth. Rather, it can be seen as a commitment to a community, a symbol of permanence and stability of residence in the host country and a decision to invest in the host community, rather than store wealth in other forms. This hypothesis is consistent with previous findings that established immigrants hold more real estate equity than recent immigrants (Cobb-Clark and Hildebrand, 2002) and that savings and remittance decisions are influenced by both the motivation for immigration and the expectations of return to the country of origin (Carroll et al., 1994; Galor and Stark, 1990).

In addition to capturing intentions to remain within a particular community, ethnic identity is also a measure of the ease with which immigrants can access information and understand the institutions of the host country. German language proficiency, knowledge of the housing market, broad community networks and access to and an understanding of financial institutions will increase the probability that, if desired, homeownership is achieved. The importance of language acquisition in determining housing outcomes has been acknowledged (see for example, Friedman and Rosenbaum (2004)), but previous quantitative studies have been constrained in their ability to analyze these impacts by a lack of available data.

Overall, these factors imply that those immigrants who are assimilated will be much more likely to own their places of residence than the separated or marginalized. Firstly, they have more of a commitment to the community of residence and secondly, they have greater informational resources and institutional knowledge at their disposal to achieve this goal. The same is likely to be true for integrated immigrants, although there may be a difference between outcomes for the integrated as compared to the assimilated, because while their institutional knowledge may be

sufficient, their additional cultural commitments may result in different long-term settlement decisions.

Data Description, Sample Selection and Variable Hypotheses

The empirical analysis in this study uses data on foreign-born individuals collected from the German Socio-Economic Panel (GSOEP), a nationally representative longitudinal survey collected by DIW Berlin. The 2001 wave of GSOEP contains the most relevant information on ethnic identity. The major observation year used in this paper is 2001, but 2000 or 2002 data were used when relevant information was not available in 2001. We restrict the sample to non-German, first generation immigrants and only examined household heads, who are considered to be the homeowner. This leaves us with a sample of 618 immigrants between 21 and 82 years of age, 21 per cent of whom are females. The majority of these household heads were born in Italy, Spain, Turkey, Greece and the former-Yugoslavia, with all others collected and defined as 'other ethnicities'.

The dependent variable is the binary variable 'dwelling owner' which takes the value one if the household heads owns his or her place of residence and zero otherwise. This variable is used because it captures the broader benefits of owning the property of residence, as discussed previously. Of the 618 foreign born household heads in this sample, 21 per cent own their dwelling of residence. The housing tenure status of the remaining group is not further disaggregated; they are simply defined as non-owners.

In keeping with existing studies on homeownership, the explanatory variables are categorized as follows. *Life-cycle* variables such as age, marital status and presence of children under 16 are included to control for the major demographic factors that have been found to influence homeownership decisions for migrants and non-migrants alike. *Socio-economic* characteristics found to be important determinants of homeownership such as income and education are also included. Specifically, household labor income, rather than individual income,

is used. This accounts for the fact that households with more than one earner and higher overall income will have a higher probability of achieving homeownership. The role of education in increasing expected permanent lifetime and hence the likelihood of homeownership is well-established (Coulson, 1999). This analysis disaggregates education into pre- and post-migration categories to determine whether the location of education is an important factor in determining homeownership for migrants. When analyzing homeownership, it is also important to account for *housing market conditions*, such as house prices. As such, the variable 'large city' is included to account for the fact that housing is less affordable in large urban areas. A large city is defined as a city of more than 100,000 inhabitants.

In addition to these three categories of variables, this analysis introduces the *ethnosizer* variables, which capture the combination of an immigrant's commitments to origin and host countries. Following Constant et al. (2006a), measurements are constructed from GSOEP questions, which impart information on five elements of attachment to German culture and society and to the culture and society of origin. These are (i) language, (ii) visible cultural elements, (iii) ethnic self-identification, (iv) ethnic network and (v) future citizenship plans. These questions reveal how well each respondent speaks German and the language of origin, the origins of preferred food, media and music, the strength of the respondent's identification with Germany and with the country of origin, the origins of closest friends, and finally, each immigrant's future citizenship and residency plans.

Because these questions reveal attachment to both Germany and the country of origin, it is possible to construct a two-dimensional measure of ethnic identity, in which respondents are classified as either assimilated, integrated, separated, or marginalized in each of the five elements of ethnic identity. Assimilation implies that attachment to German culture and society has supplanted attachment to the country of origin. For example, preferred food, media and music are German, rather than from the home country. Integration implies a balance of commitments

between the two cultures. Separation denotes a strong attachment to the culture of origin and a weak commitment to German culture. Marginalization indicates a weak attachment to both cultures.

Ethnic identity is a complex and nuanced concept and there are many possible combinations of outcomes across the five elements of cultural attachment. For example, a person may be linguistically integrated, but be separated in all other respects. To evaluate the balance of commitment to home and host countries across the five aspects of ethnic identity, four variables are constructed that measure how often a person is identified as assimilated, integrated, separated or marginalized out of the five categories. Therefore, the variable *assimilation* is the number of times that each respondent is identified as assimilated out of the five aspects of ethnic identity. Likewise, *integration* is the number of times that each respondent is identified as integrated, *separation* is the number of times that a respondent was identified as separated, and *marginalization* is the number of times an immigrant was identified as marginalized. As there are five categories, each variable ranges from zero to five and for each respondent these variables sum to five. To take an extreme example, if a household head scores five for *assimilation*, then he or she is assimilated in each of the five categories and the score for *integration*, *separation* and *marginalization* will be zero.

For consistency with existing empirical analysis, other measures of ethnicity and assimilation are controlled for. Dummy variables for country of origin are included for all groups, using Turks as the reference group. These country of origin dummies are assumed to account for all social, cultural and economic differences between migrants due to their origin. This also includes the influence of ethnic enclaves, defined as the proportion of one ethnicity to the total population, found to be important by Borjas (2002). Further regional disaggregation of the data or observations over time would be required to separately identify these enclave effects from other country of origin effects. The number of years since migration is also included, as are dummies for

religious background, to account for the fact that religion may have cultural effects distinct from those related to the country of origin. To account for the fact that the influence of ethnicity may differ by gender, a dummy variable for gender is included, which equals one if the household head is female.

Descriptive analysis of the data reveals that educational levels and income vary significantly across the sample. 26 per cent of household heads completed school in their own country, with a further 31 per cent having vocational training and an additional 6 per cent having university education before they arrived in Germany. With regard to education within Germany, 51 per cent received up to higher school education, while 9 per cent received university education in Germany. Household labor income for immigrants in this sample ranges from zero to almost 130,000 Euros, with average household income at just under 30,000 Euros. 68 per cent of immigrants in this sample who own their places of residence have higher than average income.

With regard to life-cycle characteristics, 80 per cent of household heads are married and 47 per cent have children under sixteen. When examining the homeowner sample alone, 90 per cent of homeowners are married and just over half of all homeowners have children under 16. As predicted by theory, homeownership trends also seem to vary with location, with the vast majority of homeowners living in cities of less than 100,000 residents.

A third of household heads in this sample are of Turkish origin, and of these 17 per cent are homeowners. Those from the former Yugoslavia account for 19 per cent of all household heads in this sample but only 10 per cent of these are homeowners. Greeks and Italians account for eight and 15 per cent of all household heads and have 22 per cent and 37 per cent homeownership rates respectively.

Examining the ethnosizer variables, it is clear from table 2 that, on average, home owners score higher in both assimilation and integration measures than non-homeowners. Conversely non-homeowners score, on average, more highly in separation and marginalization variables, showing

that more marginalized and separated people are less likely to own their own homes. On the surface, descriptive analysis of the ethnicity variables seem to suggest a link to homeownership in the manner suggested by our hypothesis. A more rigorous examination of this hypothesis is undertaken using probit analysis.

Estimation and Analysis

The probit approach is used for estimation, in which the binary dependent variable 'dwelling-owner' (H_i) is assumed to be a function of the socio-economic, demographic, housing market characteristics of each immigrant household head (X_i) and the ethnic identity variables (I_i) outlined above to model the probability of homeownership. With H_i* as the continuous latent variable of H_i and ε_i as the standard normal error term it follows:

$$H_i^* = X_i\beta + I_i\gamma + \varepsilon_i \qquad (1)$$

Results from the probit analysis are presented in Table 3.[2] Two specifications of the model (I and II) are presented, with and without the ethnic identity variables (I_i). Examining the results for the demographic, socio-economic and housing conditions variables in model I, it is clear that they are consistent with both economic theory and existing empirical results. As predicted by theory, being older, married and having children under the age of sixteen all significantly increase the probability of homeownership.

The socio-economic variables also have the expected impact. The log of household income is significant and positive, showing that higher household income increases the probability of

[2] Some variables included like household income and the ethnosizer could be suspected to be endogenous, and hence could bias the probit analysis. The exogeneity test we employed is based on a two-step quasi-likelihood method suggested by Rivers and Vuong (1988) and discussed in Woolridge (2002) that (i) either regresses the residuals of the homeownership model under study on the residuals of three regressions, where the potentially endogenous covariates are explained by the truly exogenous variables of the homeownership model and a number of extra exogenous variables to satisfy the rank condition for identification or (ii) include the residuals of the three regressions into the homeownership equation. The extra exogenous variables were age and years since migration squared and cubic and a set of religious dummies. We also examined a variable for the level of education of the partner of the household head as a particular instrument for household income. While the inclusion of the partnership variable reduced the sample size somewhat, partner's education is arguably more exogenous than other potential instruments (Bourassa, 2000). All attempts brought no indications for endogeneity, rendering the standard probit approach appropriate.

owning one's own dwelling. Completed high school education in the home country is also positive and significant. Interestingly, the variables that capture education within Germany are not significant, and neither is college education in the home country, indicating that only pre-migration completion of high school matters to the homeownership decision, relative to the excluded category of no education in the home country. The variable 'large city' is negative and highly significant, showing that living in a city of more than 100,000 people considerably decreases the probability of owning a home, presumably due to the higher prices in urban areas.

Turning to the ethnicity, or country of origin, variables, in the complete model ex-Yugoslavs are significantly different than the reference group, being less likely than Turks to own their homes, whereas Italians are more likely to own their own dwellings. Other ethnicities are no more or less likely than Turkish household heads to be homeowners. All variables for religion are found to be insignificant and are therefore excluded from the final model. Consistent with Coulson's (1999) findings, years since migration also appear to impact positively on the homeownership probability.

Moving beyond the static measurements of ethnicity and the linear assimilation process implied by years since migration, in model II it becomes clear that ethnic identity also affects the probability of homeownership. As it can be seen in Table 3, model II includes the two-dimensional ethnosizer, assimilation, integration and marginalization with separation being the reference category. A likelihood ratio test also clearly supports the joint significance of these variables. The results therefore show the impact of ethnic identity on the probability of homeownership relative to that of an immigrant with an ethnic identity of 'separated', who is attached to the country of origin but not to the host country.

The results for socio-economic, demographic, country of origin and large-city variables are largely unchanged, but the impact of ethnic identity is clearly significant. The higher the household heads score in the assimilation or integration variables, the more likely they are to own their

residence, compared to those who are separated. Simulation of the probability of homeownership using the coefficients from model II illustrates that if all immigrants were assimilated, 55 per cent would be homeowners, more than double of the actual 20 per cent homeownership rate of this sample. Similarly, if all immigrants were integrated, 46 per cent would own their own homes. In contrast, being marginalized is not statistically different from being separated, with marginalized immigrants no more or less likely to own their own homes that separated immigrants. This implies that it is the lack of attachment to the host country, rather than continuing ties to the origin country, that contribute to poor homeownership outcomes.

Further, it is clear that assimilation and integration are also not significantly different to one another, once again illustrating that it is host country commitment, rather than attachment to the origin country that determines the homeownership probability. This appears to be consistent with the hypothesis that homeownership reflects a commitment to the host country and that it is facilitated by host country language abilities and institutional knowledge. Those who are assimilated and integrated will share these characteristics, whereas those who are separated or marginalized will be neither as committed to the host country, nor as able to understand and access its housing market institutions. That there is little difference evident between the assimilated and the integrated suggests that a contemporaneous commitment to and knowledge of another culture does not impact on the probability of homeownership.

This differs from other economic outcomes for immigrants, such as labor force participation, the likelihood of which may be improved by knowledge of two languages, possession of ‘ethnic capital’ and access to two ethnic networks, hence advantaging integrated people above assimilated ones (Constant et al., 2006b). This could reflect the fact that the formal institutions of the housing market, both financial and legal, remain the province of the German language and culture and are hence more accessible to people with an understanding and knowledge of this language and culture, regardless of what their additional ethnic capital may be.

Conclusions

Given the importance of homeownership for economic and social outcomes as well as health and general individual and community well-being, it is important to understand why some immigrant groups fare better in achieving this objective. This analysis introduces the ethnosizer, a two-dimensional measure of ethnic identity, to the empirical analysis of determinants of homeownership for immigrants to Germany. In doing so, it becomes evident that while demographic and socioeconomic characteristics and housing market conditions affect the probability of homeownership as theory predicts, ethnic identity also plays a significant role.

Using data on immigrant household heads from the GSOEP, it is possible to construct a measure that allows for four states of ethnic identity: *assimilation, integration, separation* and *marginalization.* These variables are shown to significantly affect the probability of homeownership, with assimilated and integrated immigrants being much more likely to own their place of residence when compared to household heads who are in the separated category. In contrast, homeownership outcomes for marginalized household heads are not significantly different from those who are separated. This demonstrates that those with a stronger commitment to the host country, are more able to move into homeownership for a given set of socioeconomic and demographic characteristics and housing market conditions; the ethnosizer is a strong predictor of homeownership attainment.

This finding may go some way in explaining the persistent homeownership gap between natives and immigrants found in numerous studies of migrant homeownership. If a large proportion of the immigrant community remains separated or marginalized, it follows from this analysis that homeownership rates will be lower than a standard economic framework of homeownership would predict.

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Table 1: Descriptive statistics for immigrant household head sample

Variables	%
Homeownership	20.04
Female	20.55
Age in years	48.33
	(13.21)
Years since migration	13.21
	(10.15)
Log of household income	8.84
	(3.70)
Married	79.61
Children under 16	46.60
Large city	36.89
Turkish	34.14
Ex-Yugoslavian	18.77
Greek	8.25
Italian	15.86
Spanish	5.06
Other ethnicity	0.200
College in home country	6.15
Vocational in home country	30.10
Complete school in home country	26.21
Incomplete school in home country	12.30
No education in home country	25.24
No degree in Germany	15.05
Primary/lower secondary in Germany	23.62
Higher education in Germany	51.94
College education in Germany	9.39
Muslim	32.69
Catholic	31.07
Other Christian	28.48
Other religion	3.72
Non-religious	4.05

Note: As a percentage of total sample unless otherwise stated. Figures in parentheses are standard deviations.

Table 2. Average measures of ethnic identity by homeownership status

	Total	Homeowners	Non-Homeowners
Assimilation	1.125	1.508	1.023
	(1.046)	(1.108)	(1.006)
Integration	1.264	1.531	1.193
	(0.993)	(0.925)	(0.999)
Separation	1.791	1.269	1.930
	(1.378)	(1.346)	(1.355)
Marginalization	0.820	0.692	0.855
	(0.847)	(0.796)	(0.858)

Note: The value of each of these four measures lies between 0 and 5. The sum of assimilation, integration, separation and marginalization per observation equals to 5. Figures in parentheses are standard deviations.

Table 3: Probit regression results – determinants of homeownership

Variables	Model I	Model II
Constant	-3.325***	-4.518***
	(-6.35)	(-7.46)
Female	0.011	-0.028
	(0.06)	(-0.15)
Age	0.015*	0.026***
	(1.73)	(2.87)
Years Since Migration	0.032***	0.019*
	(3.23)	(1.81)
Married	0.459**	0.541**
	(2.26)	(2.55)
Children Under 16	0.425**	0.441**
	(2.53)	(2.53)
Log of Household Income	0.045**	0.045**
	(2.32)	(2.16)
Large City	-0.578***	-0.565***
	(-4.13)	(-3.92)
Ex-Yugoslavian	-0.273	-0.421*
	(-1.29)	(-1.93)
Greek	-0.217	-0.212
	(-0.87)	(-0.83)
Italian	0.408**	0.337*
	(2.23)	(1.78)
Spanish	-0.069	-0.195
	(-0.22)	(-0.60)
Other ethnicity	0.498**	0.052
	(2.39)	(0.23)
College in home country	0.080	0.242
	(0.20)	(0.60)
Vocational education in home country	0.129	0.289
	(0.55)	(1.20)
Complete school in home country	0.185	0.495*
	(0.76)	(1.93)
Incomplete school in home country	-0.373	-0.304
	(-0.99)	(-0.80)
No degree in Germany	-0.144	0.167
	(-0.42)	(0.48)
Higher education in Germany	0.286	0.138
	(0.88)	(0.42)
College education in Germany	-0.078	-0.184
	(-0.36)	(-0.83)
Assimilation		0.350***
		(4.88)
Integration		0.306***
		(4.05)
Marginalization		0.090
		(1.08)
Observations	618	618
Log likelihood value	-273.049	-256.569
Pseudo-R^2	0.141	0.193

Note: A * indicates significant at 10% , ** significant at 5% , and *** significant at 1% (two-tailed test); t-values in parentheses. The dependent variable is 'dwelling owner,' which equals 1 if the household head owns the property of residence and zero otherwise; the reference category is childless; unmarried; Turkish; male; no education in the home country; lower education in Germany; ethnically separated.