Cross-Country Differences in Homeownership: A Cultural Phenomenon?

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Abstract

Cross-country differences in homeownership rates are large and persistent over time, ranging from 44% in Switzerland to 83% in Spain. In this project, we test the hypothesis that cultural tastes drive these cross-country differences. To isolate the effect of cultural preferences regarding homeownership from the impact of institutions and economic factors, we investigate the homeownership decisions of second-generation immigrants in the United States during 1994-2017. On average, second-generation immigrants are as likely to own their primary residence as native households. However, within the United States, we discover considerable variation in homeownership rates across second-generation immigrant groups from different cultural backgrounds. In fact, the persistent cross-country differences in homeownership rates are replicated by their descendants in the United States. We show that the aggregate homeownership rate in the immigrants country of ancestry, our proxy for cultural preferences regarding homeownership, is an important explanatory factor for homeownership decisions of second-generation household heads. The effect is quantitatively meaningful. In the baseline sample, it accounts for 5% of the variation in homeownership rates across second-generation immigrant groups. The impact of cultural preferences is substantially larger for married second-generation immigrants sharing the same cultural background with their spouse; it accounts for 39% of the variation in homeownership rates across second-generation immigrant groups within the United States. We show that cultural preferences for homeownership are persistent, transmitted between generations and that they substantially influence the rent-versus-buy decision.

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1 Introduction

Despite the large attention housing markets have received recently, there are few empirical studies that aim to explain why homeownership rates differ so greatly across countries. Cross-country differences in homeownership rates are large and persistent over time. Homeownership rates vary from 44% in Switzerland to 83% in Spain. In this project we test the hypothesis that these cross-country differences are driven by cultural tastes.¹

To isolate the effect of cultural preferences towards homeownership from the effects of institutions and economic factors, we employ the epidemiological approach. We investigate the homeownership decision of second-generation immigrants in the United States using data from the Current Population Survey from 1994 to 2017.² A second-generation immigrant is defined as an individual that is born, and who lives in the United States while having born-abroad parents. All second-generation immigrants in our sample face, therefore, the same markets and institutions. However, they differ regarding their parents' country-of-origin and hence in their cultural background.

In the baseline sample, the average second-generation immigrant household head does not differ significantly from natives regarding socioeconomic characteristics. There exists no homeownership gap between the average second-generation immigrant household and a native household.³ However, we find a considerable variation in homeownership rates across second-generation immigrant groups - defined by the country-of-origin of the fathers. In fact, we find a strong positive correlation between aggregate homeownership rates of second-generation immigrant groups living in the United States and the corresponding aggregate homeownership rates in the country-of-origin of their fathers. The persistent cross-country differences in homeownership

¹According to Alesina and Giuliano [2015] most empirical papers define culture as "those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation." We follow this definition, which was originally adopted by Guiso et al. [2006].

²Our main data source is the march supplement of the Current Population Surveys (CPS). The individual data is augmented with aggregate homeownership rates for 38 countries.

³There is an extensive literature on the homeownership gap between immigrant and native households, e.g., Borjas [2002]. In contrast to our study, this literature investigates first-generation immigrants. The typical immigrant differs significantly to an average native - regarding education, wage income, and other socioeconomic characteristics. The literature finds that the homeownership gap is large. In line with our finding, Abdul-Razzak et al. [2015] do not find any homeownership gap between native-born households and first-generation immigrants that lived in the US for 17 years or longer. Further, they do not find a significant difference in homeownership rates between households headed by naturalized first-generation citizens and native-born households.

rates are replicated by the homeownership rates of second-generation immigrant groups within the United States. To understand this positive relationship, we investigate the homeownership decision on the micro level, using second-generation immigrant household heads as your subjects of study.

We employ a quantitative proxy for cultural preferences towards homeownership. We proxy these preferences of second-generation immigrants by aggregate homeownership rates in the country-of-origin.⁴ Aggregate homeownership rates capture aggregate preferences for homeownership.⁵ It is evident that markets and institutions also shape aggregate homeownership rates. However, only the cultural preference component of aggregate homeownership rates in the parent's country-of-origin can be relevant and have explanatory power for the homeownership decision of a second-generation immigrant who was born, raised and lives in the United States.

It is important to ensure that our results are not driven by a systematic difference in second-generation immigrants depending on the country-of-origin. We, therefore, control for individual characteristics that are known to be important for the tenure choice decision. In particular, we control for educational attainment, employment status, income, savings, race, age, marital status, number of children, gender, and parental income. Housing structures or housing costs might differ across location of residence and over time. We control for these differences, regardless of their source, by including a vector of metropolitan area and year dummies.⁶ In one robustness check, we address the concern that housing affordability might differ across locations of residence explicitly. We proxy local housing affordability by homeownership rates at the MSA level and include these MSA homeownership rates in the baseline

⁴Our empirical strategy is similar to Fernández and Fogli [2009], who show that the female labor force participation and fertility decision in the country-of-origin replicate the fertility and labor participation rate of second-generation immigrant women in the United States. Cultural preferences for labor force participation (children) are measured by the aggregate female labor force participation rate (aggregate fertility rate) in the country-of-origin.

⁵For the analysis to be meaningful, the proxy for cultural preferences should evolve slowly over time. Otherwise, the cultural preferences transmitted by the parents to children would not be captured by past or future values. This is not a concern, aggregate homeownership rates and especially cross-country differences are very persistent over time.

 $^{^6}$ Metropolitan areas (MSAs) are defined as specific counties or groups of counties centering on a substantial urban area. House price cycles vary systematically across regions in the United States, Sinai [2012]. Therefore it is particularly important to include a large set of location dummies, as well as time dummies to account for house price effects in a specific year and location of residence. Appendix B shows alternative regression specifications to account for e.g., price effects or other differences across MSAs within a given location and year. One specification includes the interaction term metropolitan area \times year. Another specification uses the interaction term of metropolitan central city status \times year dummies.

regression.⁷

Our first finding shows that a second-generation immigrant with a father that emigrated from a high homeownership country is more likely to be a homeowner in the United States. This effect is statistically significant at the 1% level. The quantitative impact of cultural preferences on the homeownership decision is sizeable for second-generation immigrants. The impact is larger in magnitude than the impact of moving from the lowest to the highest education category. Further, it is approximately three times as large as the effect of age or the effect of being employed (versus unemployed). An increase in the homeownership rate in the country of father's origin by one standard deviation (across countries) is associated with a 0.5 percentage point increase in the probability that an average second-generation immigrant is a homeowner in the United States. This accounts for 5.3% of the variation in homeownership rates across second-generation immigrant groups within the United States.

Since this paper aims to quantify the general effect of cultural preferences on the actual homeownership decision and given that our subjects of study are secondgeneration immigrants, we suspect the quantitative impact of the presented baseline estimate to be a lower bound for the general effect of culture on the homeownership decision. There might be heterogeneity in the cultural preferences of secondgeneration immigrants for several reasons. First, our subjects of study have been born and live in the United States. Parents are not the only transmitter of cultural preferences - as the friendships of the second-generation immigrant and the institutions in the country of residence (i.e., the United States) may also shape their preferences and beliefs. Second, second-generation immigrants might be married or live with a partner of different cultural background, making it more difficult to preserve the culture of one's ancestors. Third, the impact of the culture of one's ancestors may diminish over time. Fourth, the cultural preferences of the parents may differ from the average of those preferences observed in the country-of-origin. Those parents that decided to emigrate from their country-of-origin might feel less connected to the culture of the home country. Hence, our cultural proxy might not represent the preferences of those parents accurately.

⁷We find that the proxy for cultural preferences towards homeownership remains positive and highly significant, while the MSA homeownership rate is not statistically significant.

⁸The impact of reaching the highest income decile (relative to the first income decile) is approximately four times as large as the economic impact of cultural preferences.

To unravel these effects and thereby explore the impact of cultural preferences on the homeownership decision in a sharper way, we split the group of second-generation immigrants further into three more homogeneous subgroups: household heads that are married to a spouse of the same cultural background, those that are single, and those that are married to a spouse of a different cultural background. For a second-generation immigrant, the spouse may play an important role in preserving the beliefs and preferences. Further, one can argue that a second-generation immigrant that married a spouse sharing the same cultural background, might be most embedded in his culture of ancestry.

To best reflect and proxy cross-country differences in the preference for homeownership, we focus on second-generation immigrants household heads that are married to a spouse of the same cultural background. We find that the effect of culture is largest for this subgroup. The cultural proxy is significant and the marginal effect is more than twice as large compared to singles, while nine times larger compared to household heads that are married to a spouse of a different cultural background.⁹

The quantitative impact of cultural preferences is substantial for married household heads sharing the same cultural background with their spouse: The impact of cultural preferences is largest compared to all other explanatory variables. An increase in the homeownership rate in the country of father's origin by one standard deviation (across countries) is associated with a 3.7 percentage point increase in the probability that an average married second-generation immigrant (with a spouse of the same cultural background) is a homeowner in the United States. This accounts for 39% of the variation in the homeownership rate across second-generation immigrant groups within the United States.

Finally, we present evidence for the hypothesis that the impact of culture vanishes over time. The effect of cultural preferences is 36% larger for first-generation married couples sharing the same cultural background than for second-generation couples sharing the same background.

In summary, we conclude that the quantitative impact of cultural preferences towards homeownership on the actual homeownership decision is substantial.

 $^{^9\}mathrm{We}$ find that the effect of cultural preferences towards homeownership is significantly and approximately 191% larger for single household heads compared to married couples that do not share the same cultural background. For second generation married household heads who have a spouse from a different cultural background, their own cultural background has a much smaller impact on their homeownership decision compared to the baseline estimation. The effect of cultural preferences is only significant at the 10% level.

The findings are robust to a number of alternative explanations. In the paper, we address potential concerns such as omitted variables, sample selection, and a systematic selection of immigrants before emigration (the parents of our subjects of study). We also discuss in detail the potential concern of a systematic difference (and unobserved heterogeneity) in second-generation immigrant groups depending on the country of parent's origin. In addition, we address the concern that housing markets might be systematically different across metropolitan areas. To control for a systematic clustering of second-generation immigrants within the United States, we provide several alternative specifications for the control of the location of residence, including a measure of housing affordability.

In addition, we provide a wide range of robustness checks concerning the estimation technique and the measurement of cultural preferences towards homeownership, and the definition of a second-generation immigrant.

This paper not only provides a novel explanation for the observed large and persistent cross-country differences in homeownership rates, our results are relevant for policy making. Huber [2017] shows for a sample of 18 OECD countries, that countries with larger homeownership rates are more vulnerable to housing bubbles, and generally characterized by more volatile housing markets. To develop effective macro-prudential policy tools for the control of housing markets, country heterogeneity needs to be taken into account.¹⁰ Therefore, it seems to be important to understand where the large and persistent cross-country differences in homeownership rates originate from.

The remainder of this paper is organized as follows. Section 2 reviews the related literature. Section 3 outlines our empirical strategy, describes the data and sample selection. Section 4 presents the results. Section 5 shows the results for more homogeneous subgroups of second-generation immigrants. Section 6 discusses the robustness of our findings. Section 7 concludes. Appendix A provides summary and descriptive statistics. Appendix B offers a wide range of robustness checks.

¹⁰The necessity of considering country heterogeneity was pointed out, e.g. by Hartmann [2015].

2 Related Literature

Although our paper combines ideas about homeownership and culture in a novel way, it follows a large literature on related topics.

The first strand of related literature investigates the homeownership gap between immigrants and natives in the United States (Borjas [2002], Kauppinen and Vilkama [2016]). In contrast to our paper, these studies investigate first-generation, not second-generation immigrants.¹¹ We find that the average second-generation immigrant is not systematically different to a native in terms of socioeconomic characteristics. There exists no homeownership gap between an average second-generation immigrant and a native. Our result is in line with Abdul-Razzak et al. [2015], who show that for the homeownership probability, the immigrant status has no explanatory power for first-generation immigrants that have lived in the US for 17 years or longer. While Lin et al. [2016] find no difference in the mortgage delinquency between natives and first-generation immigrants - as long as they lived in the United States for more than 20 years.

The second strand of related literature investigates empirically the transmission of cultural values, preferences or beliefs, and studies the impact of culture on economic outcomes. The applied empirical methodology is often referred to as the epidemiological approach.¹² This method isolates the effects of culture from those of markets and institutions by studying the individual behavior of immigrants from different cultural backgrounds in one host country - hence holding constant the institutional and economic environment. This approach mainly involves capturing cultural preferences of immigrants by an average value of a continuous variable assigned to the country-of-origin. The seminal paper in this area is Carroll et al. [1994] that studies the impact of culture on saving rates.¹³

¹¹Similarly, the literature studying the gap between natives' and immigrants' access to financial markets (Chatterjee and Zahirovic-Herbert [2014], Abdul-Razzak et al. [2015], Luik and Steinhardt [2016]) and the gap concerning mortgages (Lin et al. [2016], Diaz-Serrano and Raya [2014]) study the behavior of first not second-generation immigrants.

¹²In addition, the methodologies of natural experiments (e.g. Botticini and Eckstein [2005]) and laboratory experiments (e.g. Henrich et al. [2001]) have been used to provide evidence that culture matters. Fernández [2011] provides a detailed literature overview.

¹³Carroll et al. [1994] investigate the saving behavior of first generation immigrants in Canada and find that cross-country differences in saving rates cannot be explained by culture. However, their analysis is subject to large data restrictions, since cultural groups are defined in terms of four very broad regions. The follow-up paper Carroll et al. [1999] clearly improves this aspect, but uses less precise information on the propensity to save. Carroll et al. [1999] find significant differences in the saving behavior of immigrants, however these differences are not related to the saving rates in the countries-of-origin. In a recent paper, Fuchs-Schündeln et al. [2017] show in the context of

Our empirical strategy is similar to that of Fernández and Fogli [2009] among others. Fernández and Fogli [2009] show that the labor force participation and fertility rates of U.S. immigrant women is influenced by the female labor participation and fertility rates of the country-of-origin of their mothers. Alesina and Giuliano [2010], Fernández [2007] and Fernández et al. [2004] confirm the result that culture matters for female labor participation and fertility.

In a similar vein, Algan and Cahuc [2005] use inherited family values of U.S. immigrants as an instrument for family values in the source country to explain cross-country employment heterogeneity. Using the same methodology than us, Furtado et al. [2013] shows that culture determines divorce by examining country-of-origin differences in divorce rates of immigrants in the United States. Algan and Cahuc [2010] and Guiso et al. [2006] find that the level of trust of U.S. immigrants depends on and is highly correlated with the average trust level in their country-of-origin. Luttmer and Singhal [2011] shows that culture is an important determinant of preferences for redistribution, and Atkin [2016] for food preferences.¹⁴

Regarding the research question, our paper is most closely related to Giuliano [2007]. Her study evaluates why Southern Europeans choose to stay longer at their parents' homes compared to young adults in the North of Europe by studying the behavior of second-generation immigrants in the United States. Giuliano [2007] finds that these behavioral differences between Southern and Northern Europeans are also visible for second generation immigrants in the United States and cannot be explained by income differences or the like. Giuliano [2007] concludes that cultural preferences are the most relevant factor. Osili and Paulson [2008] study the investment behavior of first-generation U.S. immigrants and find that immigrants from countries with institutions that more effectively protect private property are more likely to own financial stocks in the United States. They conclude that the effect of home institutions is absorbed early in life and is persistent after emigrating. Using Italian data, Guiso et al. [2004] show that households' portfolio allocation is influenced by cultural factors.¹⁵ Haliassos et al. [2017] study the impact of culture on

second-generation immigrants in Germany that culture is a significant driver for household saving behavior. They confirm this result using UK data.

¹⁴Atkin [2016] shows that migrants bring and keep their origin-state food preferences and that these differences in food preferences can explain the differences in the intake of calories per Rupee of food expenditure across social groups in India.

¹⁵Guiso et al. [2004] find that social capital is an important driver for financial development and that households are more likely to invest a larger share of wealth in stocks (and to use checks) if they are living in regions characterized by higher social capital.

stockownership, homeownership and household debt and document significant differences across different cultural groups. There are two important differences between their work and ours. First, we study the behavior of second, not first-generation immigrants - to avoid any systematic selection concerns. Second, Haliassos et al. [2017] do not reconcile the significant differences in the financial behavior of immigrants with the financial choices of households in the country-of-origin. Kosse and Jansen [2013] study first and second-generation immigrants in the Netherlands and find that culture affects the choice between payment instruments.¹⁶

The main conclusion from this second strand of related literature is that values and preferences, summarized as culture, differ across countries and that culture influences many economic outcomes. We complement this strand of literature by showing that cultural preferences matter for the homeownership decision.

The third strand of related literature analyses the determinants of homeownership rates within or across countries. Although there is still little consensus on why homeownership rates differ so greatly across OECD countries, surprisingly few empirical cross-country analyses of homeownership determinants have been published so far. Chiuri and Jappelli [2003]'s dataset consists of 14 OECD countries over a 30 year period. They find that down-payment requirements on mortgage loans have a negative impact on homeownership for young households only.¹⁷ Georgarakos et al. [2010] find that homeownership rates in Europe do not correlate with the breadth of mortgage markets. This result matches that of Earley [2004], who finds for a sample of 15 European countries that the highest homeownership countries are among those with the lowest levels of mortgage-to-GDP ratios. Hilber [2007] analyzes homeownership rates in 15 European countries and finds that demographic factors are significant determinants of individual tenure choice. Homeownership is larger for married couples, increases with age and the number of children. However, Hilber [2007] shows that country differences in the socio-economic composition cannot explain cross-country differences in homeownership rates. This is in line with Davis [2012], who finds that homeownership rates are not correlated with cross-country standards

¹⁶Kosse and Jansen [2013] show that first-generation immigrants are affected by their cultural background, while second-generation immigrants behave as their Dutch counterparts. Payment behavior is not passed from one generation to the next.

¹⁷This result corresponds to Andrews and Sanchez [2011]'s finding that a decrease in the down-payment has a positive impact on homeownership for young households in the second income quartile.

¹⁸For the United States, Bourassa et al. [2014] finds a negative relationship between homeownership and the number of children living in the household.

of living. This finding is consistent with earlier cross-country studies, e.g. Oxley [1984] and the more recent study of Fisher and Jafee [2003], who find that income-differences across countries have no explanatory power regarding homeownership rates. Fisher and Jafee [2003] discover that the percentage of a country's population living in urban areas has a significant and negative impact on aggregate homeownership rates. According to Hilber [2007] most of the cross-country differences can be explained by landlord efficiency and the non-taxation of imputed rents. Hilber and Turner [2014] find that the deductibility of mortgage interest can have positive or negative impacts on homeownership. Andrews and Sanchez [2011] estimate a Probit Model and find that rental market regulations influence tenure choice. Higher rent controls and lower security of tenure are associated with a higher probability of homeownership.

The main conclusions from this strand of the literature is that there is a consensus on factors that cannot explain cross-country difference in homeownership rates namely cross-country differences in income or the breath of the mortgage market. On the other hand, the fundamental causes for the large and persistent differences across countries remain an open question. In this article, we present evidence suggesting that part of the cross-country difference in homeownership rates can be explained by cultural preferences regarding homeownership.

3 Estimation Strategy and Data

3.1 Data and Sample Selection

Individual Data

The main dataset consists of the March supplement of the Current Population Surveys (CPS) from 1994 to 2017.²¹ The March CPS includes questions about the birth-place of each individual and his or her parents. In the related literature, "second-

¹⁹Hilber [2007]'s result that non-taxation of imputed rents is an explanation for cross-country differences in homeownership rates should be handled with care. In his sample only two out of the fifteen countries have a taxation of imputed rents in place.

²⁰This is in line with the results of Andrews and Sanchez [2011], who suggest that tax relief on mortgage-debt-financing has only a very small effect on aggregate homeownership rates and that the effect might even be negative if these tax reliefs are factored into real housing prices, see Andrews [2010], and therefore make homeownership less affordable for lower-income households, see Bourassa and Yin [2007].

²¹Sarah Flood, Miriam King, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 5.0. [dataset]. Minneapolis: University of Minnesota, 2017. https://doi.org/10.18128/D030.V5.0.

generation" immigrants are generally defined as individuals who are born in the United States while having fathers born abroad. We follow this definition.²²

Our main sample includes second-generation immigrant household heads that are born in the United States, are at least twenty years old, and whose fathers emigrated from one of the 38 countries for which comparable homeownership rates are available. Most countries are European (28 countries).²³ We also include a few countries in Asia (Japan, South Korea, Singapore), in Australasia (Australia and New Zealand), in America (Mexico, Canada, Chile), and in the Middle East (Israel, Turkey).²⁴

In the baseline sample, the six largest second-generation immigrant groups are Mexico (29%), Italy (16%), Canada (10%), Germany (8%), Poland (7%), and Ireland (4%). The results are robust to excluding Mexico or excluding the two largest groups Mexico and Italy (45% of the baseline's observations).²⁵

Figure (A1) shows the baseline sample's distribution of all observations across U.S. states. While Figure (A2) illustrates the distribution of all observations across metropolitan statistical areas (MSAs) in the United States.²⁶ For first-generation immigrants these distributions are shown in Figures (A3) and (A4) respectively.

The sample consists of 33,290 female and 35,376 male second-generation household heads, who are born, raised, and live in the United States, and whose fathers

²²The results are robust to defining a second-generation immigrant as being born in the United States, and whose parents, either father or mother are born abroad. Table (B10), appendix B.

²³The sample includes: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland, the United Kingdom.

²⁴This set of countries has been chosen as it corresponds to the most extensive collection of comparable aggregate homeownership rates. For example, we would have liked to include China (the second-generation immigrants from China constitute the 12th largest group in the initial CPS sample). However, there are many concerns why the official Chinese homeownership rate is not internationally comparable. The official statistics from the National Chinese Statistics Bureau reports 89.3% as of 2010. However, the official figure uses the concept of privately owned land (in proportion to total land for residential purpose), while we define aggregate homeownership rates by the fraction of the households living in an owner-occupied dwelling. Note that the baseline sample includes eight out of the eleven largest second-generation immigrant groups of the initial CPS sample. We had to exclude, the fourth largest group Puerto Rico (6.61%), the seventh largest group Russia (3.36%), and the ninth largest group Philippines (2.38%).

²⁵Refer to appendix B, table (B5), column 1 and 2, respectively. For the baseline sample, we impose the restriction that the number of observations must be larger than twenty for each country-of-origin. This restriction ensures that there are sufficient observations for each of the cultural groups to reliably estimate the cultural homeownership differentials. Relaxing this restriction does not alter the results. Refer to the robustness check 3 in appendix B, table (B4), column 1.

²⁶In the baseline, second-generation immigrants are distributed across 415 different MSAs.

immigrated from one of the countries in our sample.²⁷ Second-generation immigrants do not differ significantly from natives that have parents born in the US - regarding socioeconomic characteristics. Table (A2) in appendix A provides summary statistics for the sample of second-generation immigrants at the level of fathers' country-of-origin, while Table (A3) provides detailed characteristics for first-generation immigrants at the level of the country-of-origin.

The average homeownership rate of second generation immigrants is 70.5%. This compares to a homeownership rate of 70.2% for the household-heads whose fathers were born in the United States. Despite these very similar average homeownership rates, there is a considerable variation in aggregate homeownership rates across second-generation immigrants grouped by country of ancestry.

Country Level Data:

The individual data is augmented with comparable aggregate homeownership rates for 38 countries. Table (A1), in appendix A, gives an overview of the data, followed by descriptive statistics. Homeownership rates are defined by the fraction of the households living in an owner-occupied dwelling. Further, we collect aggregate data on GDP, schooling, and wages at the country-of-origin level from the Penn World Tables.

3.2 Estimation Strategy

As discussed previously, this paper uses the epidemiological approach. To isolate the effect of culture from those of markets and institutions, we study the homeownership decision of individuals who were born, raised, and reside in the United States, and whose parents were born in a foreign country. Using second-generation immigrants rather than first-generation immigrants is advantageous. The potential problem of a systematic selection of immigrants depending on the country-of-origin is less prominent when studying second-generation immigrants. For first-generation immigrants the reasons for emigration might vary in a systematic fashion depending on the country-of-origin (e.g. some countries might be in war). There might also exist systematic differences in the difficulty of assimilation to the United States, e.g. learning the language of the host country.

²⁷This compares to 564,257 female and 636,458 male household heads, born and living in the United States, and whose fathers were born in the United States.

The epidemiological approach mainly involves capturing cultural preferences of immigrants by an average value of a continuous variable assigned to the country-of-origin. The outcome of the immigrants' choices' is regressed on the same outcome variable (average) prevailing in the country-of-origin.

We use homeownership rates in the country-of-origin as our cultural proxy for cultural preference regarding homeownership. The optimal decade from which to take these numbers is not clear. We study second-generation immigrants from 1994 to 2017, who are older than 20 years, and were born in the United States. Hence, their parents must have arrived in the United States by 1974-1997 at the latest. One can argue that values for the cultural proxy from 1974-1997 would best reflect the culture of the country-of-origin, as this is the most likely time window when the parents emigrated and took their cultural preferences with them. On the other hand, as argued by Fernández and Fogli [2009], cultural values transmitted by parents are best reflected by what the counterparts of the individuals in the country-of-origin are doing during the same period, i.e. 1994-2017. Data limitations, do not allow to use homeownership rates from 1974-1997 - as prior to 1990 homeownership rates exist for six countries only. Therefore, we use homeownership rates for the year 2011 as our cultural benchmark proxy.²⁸

For the analysis to be meaningful, the proxy for cultural preferences should evolve slowly over time. Otherwise, the cultural preferences transmitted by the parents to children would not be captured by past or future values. This is not a concern and will be discussed in detail in the next section. Aggregate homeownership rates and especially cross-country differences are very persistent over time.

3.2.1 Persistent Cross-Country Differences in Homeownership Rates

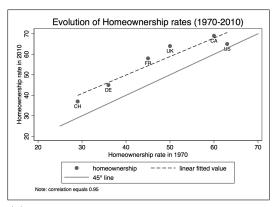
Comparable homeownership rates over time and across countries are scarce. Neither time series nor data points for year-pairs are available for our full sample of countries shown in Table (A1).

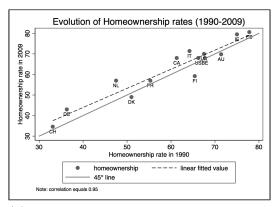
We therefore reduce the sample to study the evolution of cross-country differences

²⁸The critical reader might question whether-immigrants' preferences can be proxied by an average value in their country-of origin. Here, it should be noted that this factor will bias the test of the hypothesis towards not finding any effect of cultural preferences on the homeownership decision of the second-generation immigrant. More generally, the reader may suspect that aggregate homeownership rates might not only capture preferences but may also capture institutions, differences in taxation, etc. This is definitely true. The beauty of the epidemological approach is that only the cultural preference component (of homeownership rates in the country of father's origin) can have explanatory power for the tenure decision of individuals born and raised in the United States.

in homeownership rates over time. Table (1) shows the cross-country correlations of homeownership rates for selected year pairs. The correlations are large and positive. For a sample of six OECD countries, Figure (2a) plots the initial observation of the homeownership rate (year 1970) against the last observation available (year 2010). The fitted line is above and close to parallel to the 45°line. Hence, over the 40 years considered, homeownership rates rose proportionally in these OECD countries. The cross-country correlation of homeownership rates for the year pairs 1970 and 2010 amounts to 0.95. Figure (2b) shows a similar picture with the difference that we reduce the time horizon to include more countries. Figure (2b) plots the initial observation of the homeownership rate (year 1990) against the last observation available (year 2009) for 18 OECD countries. The fitted line is above and parallel to the 45°line. The cross-country correlation of homeownership rates for the year pairs 1990 and 2009 equals 0.95.

We conclude that homeownership rates rose proportionally in many OECD countries over time. Hence, the large cross-country differences in homeownership rates are constant, and very persistent over time.²⁹





(a) Evolution of Homeownership, 6 countries

(b) Evolution of Homeownership, 18 countries

Figure 1: Evolution of Homeownership rates

 $^{^{29}}$ For 1970, homeownership rates are available for six countries. In this sample, homeownership rates rose by 9.2% points from 1970 to 2010. For the year pairs 1990 and 2009, the sample consists of 18 countries. On average, homeownership rates rose by 2.53 % points from 1990 to 2009.

	Н	omeow	nersh	ip Rat	es
	1970	1990	2004	2009	2010
1970	1.00				
1990	0.90	1.00			
2004	0.92	0.98	1.00		
2009	0.93	0.95	0.98	1.00	
2010	0.95	0.95	0.97	0.98	1.00

Table 1: Cross-country correlations for selected year pairs

4 Estimation and Results

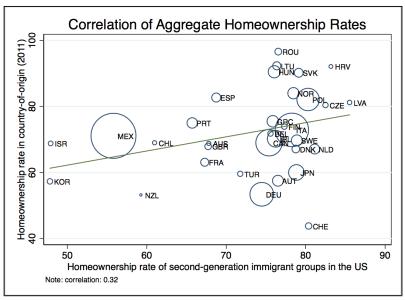
4.1 Stylized Facts

An extensive literature studies the homeownership gap between immigrant and native households, e.g., Borjas [2002]. In contrast to our paper, this literature studies first-generation immigrants and finds that the homeownership gap is large. Abdul-Razzak et al. [2015] show that for the homeownership probability, the immigrant status has no explanatory power for first-generation immigrants that lived in the US for 17 years or longer. Further, they do not find a significant difference in homeownership between households headed by naturalized first-generation citizens and native-born households.

Consistent with Abdul-Razzak et al. [2015], in our baseline sample of second-generation immigrants, we find no homeownership gap between the average second-generation immigrant and a native household. However, we discover considerable variation in aggregate homeownership rates across second-generation immigrants groups from different cultural backgrounds.

In fact, the persistent cross-country differences in homeownership rates are replicated by their descendences in the United States. Figure (2) plots the aggregate homeownership rates of second-generation immigrant groups against our cultural proxy, i.e. the aggregate homeownership rates of the country of father's origin. The correlation is positive and equal to 0.32. Countries-of-origin with higher homeownership rates are associated with higher homeownership rates of their descendants living in the United States.³⁰

 $^{^{30}}$ We run a corresponding (and basic) OLS regression and find that an increase in the homeownership rate in the country of the father's origin o by one standard deviation (across countries) is associated with an increase of in the homeownership rate of the corresponding second-generation immigrant group in the United States that accounts for 27.22% of the variation in the homeownership rate across immigrant groups within the United States. Refer to Appendix A.



Circle size represent the number of second-generation immigrants from a particular country-of-origin in the baseline sample.

Figure 2: Aggregate Homeownership Rates

4.2 Baseline Model

We estimate the following model:

$$HO_{imo} = \beta_0 + \beta_1' X_i + \beta_2 \tilde{Z}_o + F_m + F_t + \varepsilon_{imo}$$

$$\tag{4.1}$$

 HO_{imo} denotes the homeownership status of the second-generation immigrant i, who resides in the metropolitan area m and who's father immigrated from the country-of-origin o. This indicator is equal to one if the individual is a homeowner and zero otherwise. X_i denotes a vector of controls for individual i, which varies with the specification considered. \tilde{Z}_o is our variable of interest, the proxy for cultural preferences towards homeownership assigned to the parents' birthplace: the aggregate homeownership rate prevailing in 2011 in the country of father's origin. F_m and F_t stand for a large set of metropolitan area and time dummies, respectively. These dummies capture, e.g., house price effects within the metropolitan area of residence

³¹The individual characteristics included in the baseline specification are age, age (squared), gender, marital status, number of children, income deciles, savings, categories for race, education and employment status. These controls account for sources of heterogeneity across second-generation immigrants other than their cultural preferences.

in a particular year.³² The error term is denoted by ε_{imo} . Throughout the paper, the analysis utilizes probit models to understand, at a micro level, the relationship between homeownership status of second-generation immigrants and their cultural preferences regarding homeownership, while controlling for other factors that are known to impact the tenure choice. As a robustness check, we repeat all regressions using a linear probability model and find very similar results.³³

Table (2) shows the marginal effects for the main probit regression of the model in (4.1). In the first column, the homeownership status of second-generation immigrant i is regressed on the cultural proxy for the preference towards homeownership and a full set of year and metropolitan area dummies corresponding to individuals' location of residence. The coefficient is strongly significant and positive, indicating that second-generation immigrants with fathers that emigrated from a country with high homeownership rates are more likely to be a homeowner themselves.³⁴

There may be many reasons for finding this positive correlation above that has little to do with cultural preferences. Second-generation immigrants may vary in a systematic fashion by country-of-origin that affects their propensity to become a homeowner. There could be systematic differences regarding, e.g., income, savings, and education or other socioeconomic characteristics as the number of children or material status that affect the propensity to become a homeowner.³⁵ Therefore, we include sequentially a series of individual characteristics that we expect to be essential drivers for homeownership. We add financial variables in column 2-5 and socioeconomic variables in columns 6-10.

In column 2, we add two proxies for savings.³⁶ As expected savings have a

³²The metropolitan areas might also differ in housing market structures or housing costs. We control for these differences, regardless of their source, by including a vector of 415 metropolitan area dummies. Appendix B shows three alternative regression specifications to account for potential systematic differences across locations of residence. One specification includes the interaction term metropolitan area × year (RC 13, table (B7), column 2). Another specification uses the interaction term of metropolitan central city status and year dummies (RC 14, table (B7), column 3). We address potential differences in housing affordability across MSAs explicitly with RC 15. We add to the baseline specification homeownership rates on MSA level - as a proxy for housing affordability for each MSA. Section 6.2 discusses these robustness checks in more detail.

³³The OLS coefficients are very similar to the marginal effects, and the estimation results can be found in appendix B, RCs 1a-1c, tables (B1)-(B2).

³⁴The results are robust to defining a second-generation immigrant as someone that has been born, raised and lives in the United States, and who's *father or mother* emigrated from a foreign country. Refer to appendix B, RC 24, table (B10).

³⁵In particular, if second-generation immigrants from high homeownership countries would be systematically richer, the coefficient of the proxy for cultural preferences could be upward biased.

³⁶Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments

positive impact on homeownership, although the effect is statistically significant, it is not economically sizable. The direct impact of cultural preferences remains positive and statistically significant, albeit slightly smaller in magnitude, indicating that a second-generation immigrant's saving and aggregate homeownership rates in the country-of-origin are weakly positively correlated. In column 3 we add three employment categories (unemployed, out of labor force, omitted: employed). The direct effect of cultural preferences remains positive and statistically significant.

In column 4 we include income deciles. The direct impact of cultural homeownership preferences remains positive and statistically significant, albeit much more substantial in magnitude, indicating that a second-generation immigrant's income and aggregate homeownership rates in the country-of-origin are negatively correlated. In column 5 we add education categories (college +, college without a degree, omitted: high school or less). The direct effect of cultural homeownership preferences remains positive and statistically significant, although slightly larger in magnitude indicating that a second-generation immigrant's education and aggregate homeownership rates in the country-of-origin are negatively correlated.

In column 6 we add age and age squared, in column 7 we include twenty-one race categories, and in column 8 we add gender. In column 9 we include the marital status of the second-generation immigrant. And finally, we add the number of children in column 10. This column presents the full baseline specification.

As expected and consistent with the literature studying tenure choice, individuals that have more income, are employed, are married and live together, those that are better educated, and are older, are more likely to be homeowners.³⁷

It should be noted from table (A6) in the appendix that aside from cultural preferences, the second-generation immigrant's income, education, and marital status are the main drivers for homeownership. Income, education, and marital status are each negatively correlated with aggregate homeownership rates in the country-of-origin. Omitting these characteristics in the baseline specification biases the impact of cultural preferences on homeownership downwards.

We conclude that cultural preferences concerning homeownership play a sig-

which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties.

³⁷The number of children and the first proxy for savings (interest income) are not significant. While statistically significant, the second proxy for savings (rental income), is not economically significant, the marginal effect equals 0.0000026.

nificant role in home buying decisions. The results are robust to changes in the estimation technique, to variations in the vector of individual controls, to changes in the sample criteria (changes in the sample of countries of origin)³⁸, to alternative proxies for cultural preferences towards homeownership, to different definitions of second-generation immigrants, to clustered standard errors, and to alternative specifications controlling for potential systematic differences across locations of residence. In section 6, we discuss in-depth the purpose and results of the above mentioned robustness checks, as well as additional robustness checks of interest.

4.3 Quantitative Impact of Cultural Preferences

The quantitative impact of cultural preferences on the homeownership decision is sizeable for second-generation immigrants in the United States. The impact is much larger in magnitude than the impact of most other explanatory variables.³⁹ An increase in the homeownership rate in the country of father's origin by one standard deviation (across countries) is associated with a 0.5 percentage point increase in the probability that an average second-generation immigrant is a homeowner in the United States. This accounts for 5.3% of the variation in the homeownership rate across second-generation immigrant groups within the United States.

Given that our subjects of study are second-generation immigrants, we suspect the quantitative impact of the presented baseline estimate to be a lower bound for the general effect of culture on the homeownership decision. There might be heterogeneity in the cultural preferences of second-generation immigrants for several reasons.

First, our subjects of study have been born and live in the United States. Parents are not the only transmitter of cultural preferences - as the friendships of the second-generation immigrant and the institutions in the country of residence (i.e., the United States) may also shape their preferences and beliefs. Second, second-

³⁸We show nine sample size variations in appendix B. We exclude e.g. countries of origin for which we have less than 100 (200) observations, or the countries of origin that have most observations, i.e., Mexico (29%) and Italy (16%). Additional tests exclude countries of origin that might have been systematically different and therefore might have induced systematically different types of emigrants (i.e., the parents of our subjects of study), refer to RCs 3-11, tables (B4), (B5), (B6).

³⁹The impact of culture is much larger in magnitude than the impact of moving from the lowest to the highest education category. Further, it is approximately three times as large as the effect of *age* or the effect of *being employed* (versus unemployed). The impact of reaching the highest income decile (relative to the first income decile) is approximately four times as large as the economic impact of cultural preferences.

	(1)	Dependent (2)	ent Variable	: Homeowner (4)	rship status o	Variable: Homeownership status of 2^{nd} generation immigrant i (3) (4) (5) (6) (7)	immigrant i (7)	(8)	(6)	(10)
HO_{origin}	0.0591***	* ∞	0.0433** (0.0219)	0.0843****	0.0896****	0.0596***	0.0620***	0.0630***	0.0647*** (0.0232)	0.0646***
age						0.0253**** (0.000633)	0.0254**** (0.000635)	0.0251**** (0.000634)	0.0219**** (0.000639)	0.0219**** (0.000639)
age squared						-0.000169*** (0.00000593)	-0.000170*** (0.00000594)	-0.000168*** (0.00000594)	-0.000136*** (0.00000597)	-0.000135***
male (dummy)								0.0353****	-0.00579 (0.00388)	-0.00502 (0.00393)
marital status									0.174*** (0.00403)	0.173*** (0.00417)
number of children										0.00248 (0.00198)
saving proxies		>	>	>	>	>	>	>	>	>
employment status			>	>	>	>	>	>	>	>
income deciles				>	>	>	>	>	>	>
education categories					>	>	>	>	>	>
race categories							>	>	>	>
metropolitan area	>	>	>	>	>	>	>	>	>	>
year (dummy)	>	>	>	>	>	>	>	>	>	>
$\frac{N}{\text{pseudo }R^2}$	68666	68666	68666	68666	68666	68666	68666	68666	68666	68666

are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate Marginal effects. * p<0.1, ** p<0.05, *** p<0.01, *** p<0.01. Standard errors in parentheses. Dependent variable: Equal to one if 2nd the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), in the parents' country-of-origin in 2011 and is $\in (0, 1)$.

Table 2: Main Probit Regression - Culture and Homeownership

generation immigrants might be married to or live with a partner of different cultural background, making it more difficult to preserve the culture of one's ancestors. Third, the impact of the culture of one's ancestors may diminish over time.

Fourth, the cultural preferences of the parents of second-generation immigrants may differ from the average of those preferences observed in the country-of-origin. Those parents that decided to emigrate from their country-of-origin might feel less connected to the culture of the home country. Hence, our cultural proxy might not represent the preferences of those parents accurately.

To unravel these effects and thereby explore the impact of cultural preferences on the homeownership decision in a sharper way, we split the group of second-generation immigrants further into more homogeneous subgroups. Repeating the analysis for more homogeneous subgroups, allows us to capture more accurately the different cultural homeownership preferences across countries. Section 5 shows the results and strongly support our suspicion to have found a lower bound for the true extent of the impact of cultural preferences on the homeownership decision.

5 Cultural Transmission and Married Couples

This section provides additional evidence for the hypothesis that cultural preferences matter for the homeownership decision. We investigate cultural transmission and show that the effect of cultural homeownership preferences on the actual homeownership decision is significantly stronger when individuals are more exposed to their cultural inheritance in the United States.

To reflect and proxy cross-country differences in the preference for homeownership in a sharper way, we split the baseline sample of second-generation immigrants further into more homogeneous subgroups. In particular, we study the effect of the composition of married couples in cultural transmission. For a second-generation immigrant, the spouse may play an important role in preserving the beliefs and preferences transmitted by the parents.

Our first hypothesis is that singles can preserve their cultural heritage more than married couples that do not share the same cultural background. Hence, we expect that the effect of cultural preferences regarding homeownership for a single non-married household head to be significantly larger. The second hypothesis is that married couples sharing the same cultural background conserve their cultural preferences more in comparison to singles. And the third hypothesis tests whether married couples sharing the same cultural background conserve their cultural preferences more than couples of different cultural background. If both spouses share the same cultural background, we expect the cultural preference proxy to have the largest impact on behavior.

Table (3) shows the estimation results for these more homogenous subsets of our sample. For comparison, column 1 illustrates the baseline regression. In column 2 we run the regression for second-generation immigrant singles only. The third column presents the estimation results for the subset of married household heads, whose spouse is from a different background. In column 4 we only include married household heads sharing the same cultural background with their spouse.

We find that the effect of culture is significant and three times larger for single household heads compared to married couples that do not share the same cultural background. We also find evidence for the second and third hypothesis: The effect of culture is largest for married household heads sharing the same cultural background with their spouse (column 4). We find that our cultural proxy is significant and the marginal effect is more than twice as large compared to singles (column 2), while nine times larger compared to household heads that are married to a spouse of a different cultural background (column 3).

The quantitative impact of cultural preferences is substantial for married household heads sharing the same cultural background with their spouse. The impact of cultural preferences is largest compared to all other explanatory variables, even larger than the effect of income. An increase in the homeownership rate in the country of father's origin by one standard deviation (across countries) is associated with a 3.7 percentage point increase in the probability that an average married second-generation immigrant (with a spouse of the same cultural background) is a homeowner in the United States. This accounts for 39% of the variation in the homeownership rate across second-generation immigrant groups within the United States.

⁴⁰For second-generation married household heads having a spouse from a different cultural background, their own cultural background has a much smaller impact on their homeownership decision compared to the baseline estimation. The effect of cultural homeownership preferences is not statistically significant for this subset.

⁴¹Consistent with our three hypotheses, we perform upper-tailed Z-tests to test whether the differences in the coefficients β_2 across the subgroups are statistically significant. The results are shown in table (A4), appendix A.

Next, we explore whether the effect of cultural preferences towards homeownership is larger for first-generation married immigrants. As mentioned before, the impact of culture might diminish over time in our sample. Column 3 in Table (4) shows the estimation results. Married first-generation household heads that are older, better educated and who have a higher income are more likely to be a homeowner. The cultural preference proxy is highly significant, and the marginal effect is 36% larger for first-generation married couples sharing the same cultural background compared to second-generation couples sharing the same background. The quantitative impact of cultural preferences is largest compared to all other explanatory variables. An increase in the homeownership rate in the country-of-origin by one standard deviation (across countries) is associated with a 5%-point increase in the probability that an average married first-generation immigrant (with a spouse of same cultural background) is a homeowner in the United States. These effects are not only statistically significant but quantitatively large.

We draw three main conclusions from this section. First, the spouse's cultural background matters for preserving cultural preferences towards homeownership as well as for its transmission. Second, this section provides evidence that the quantitative impact found in the baseline specification is indeed a lower bound for the general effect of cultural preferences towards homeownership on the actual homeownership decision. To best reflect the true cultural preferences regarding homeownership prevailing in different countries, we should focus on the subsample of second-generation immigrants household heads married to a spouse sharing the same cultural background. Third, the results of this section indicate that the quantitative impact of cultural preferences on the homeownership decisions is substantial. An increase in the homeownership rate in the country of father's origin by one standard deviation (across countries) is associated with a 3.7 percentage point increase in the probability that an average married second-generation immigrant (with a spouse of the same cultural background) is a homeowner in the United States. This accounts for 39% of the variation in the homeownership rate across immigrant groups within the United States.

 $^{^{42}}$ The effect of culture is 12% larger than the effect of moving from the lowest to the highest income decile.

	Dependent Variable: Homeownership status of immigrant i				
	2nd generation				
	all (baseline)	single	$ \text{married} \neq \\ \text{background} $	married same background	
ШО	(1) 0.0646***	(2) 0.0921***	(3) 0.0316	(4) 0.314**	
HO_{origin}	(0.0231)	(0.0353)	(0.0232)	(0.130)	
	(0.0231)	(0.0555)	(0.0252)	(0.150)	
male (dummy)	-0.00502	-0.0317****	0.00454	0.00116	
	(0.00393)	(0.00628)	(0.00447)	(0.0107)	
marital status	0.173****				
	(0.00417)				
0.00	0.0219****	0.0221****	0.0178****	0.0234****	
age	(0.000639)	(0.000928)	(0.000829)	(0.0254) (0.00187)	
	,	,	,	,	
age squared	-0.000135****	-0.000129****	-0.000124****	-0.000137****	
	(0.00000599)	(0.00000868)	(0.00000783)	(0.0000185)	
number of children	0.00248	-0.00651*	0.00869****	0.0136***	
	(0.00198)	(0.00366)	(0.00201)	(0.00446)	
interest income	-0.000000320	-0.000000318	-7.22e-08	-0.000000377	
interest income	(0.000000320 (0.00000310)	(0.000000527)	(0.000000284)	(0.000000377 (0.000000115)	
	,	,	,	,	
rental income	0.00000264****	0.00000251**	0.00000240****	0.00000714***	
	(0.000000692)	(0.00000104)	(0.000000662)	(0.00000264)	
employment status	\checkmark	\checkmark	\checkmark	\checkmark	
education categories	\checkmark	\checkmark	\checkmark	\checkmark	
income categories	\checkmark	\checkmark	\checkmark	\checkmark	
race categories	\checkmark	\checkmark	\checkmark	\checkmark	
metropolitan area	\checkmark	\checkmark	\checkmark	\checkmark	
year (dummy)	\checkmark	\checkmark	✓	\checkmark	
N	68666	35252	22958	8673	
pseudo \mathbb{R}^2	0.228	0.153	0.220	0.263	

Marginal effects. * p<0.1, ** p<0.05, *** p<0.01, **** p<0.01. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the parents' country-of-origin in 2011 and is $\in (0,1)$.

Table 3: Married - Does the Partners Background matter?

Dependent Variable: Homeownership status of immig				
	2nd generation		1st generation	
	all	married same	married same	
	(baseline)	background	background	
	(1)	(2)	(3)	
HO_{origin}	0.0646***	0.314**	0.427****	
	(0.0231)	(0.130)	(0.0728)	
male (dummy)	-0.00502	0.00116	0.00340	
	(0.00393)	(0.0107)	(0.00699)	
marital status	0.173****			
	(0.00417)			
age	0.0219****	0.0234****	0.0289****	
	(0.000639)	(0.00187)	(0.00143)	
age squares	-0.000135****	-0.000137****	-0.000147****	
	(0.00000599)	(0.0000185)	(0.0000150)	
number of children	0.00248	0.0136***	0.0211****	
	(0.00198)	(0.00446)	(0.00232)	
interest income	-0.000000320	-0.000000377	-2.60e-08	
	(0.000000310)	(0.00000115)	(0.000000815)	
rental income	0.00000264****	0.00000714***	0.00000803****	
	(0.000000692)	(0.00000264)	(0.00000213)	
employment status	\checkmark	✓	\checkmark	
education categories	\checkmark	\checkmark	\checkmark	
income categories	✓	\checkmark	✓	
race categories	\checkmark	\checkmark	✓	
metropolitan area	\checkmark	\checkmark	\checkmark	
year (dummy)	\checkmark	\checkmark	\checkmark	
N	68666	8673	38843	
pseudo R^2	0.228	0.263	0.201	

Marginal effects. * p<0.1, *** p<0.05, **** p<0.01, ***** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. For 2^{nd} generation immigrants, HO_{origin} denotes the aggregate homeownership rate in the parents' country-of-origin in 2011 and is $\in (0,1)$. For 1^{st} generation immigrants, HO_{origin} denotes the aggregate homeownership rate in their country-of-origin in 2011 and is $\in (0,1)$.

Table 4: Married - Does the Partners Background matter? (2)

6 Robustness of our Findings

This section is dedicated to exploring the robustness of our findings. We discuss potential concerns and how we address them, concerns such as the systematic selection of immigrants and sample selection, omitted variables, systematic differences across the location of residence, econometric issues, as well as the measurement of cultural preferences towards homeownership, and of the immigrant status.

6.1 Estimation strategy

To check for robustness of our results with respect to econometric method applied, we run an OLS estimation of (4.1). Our variable of interest, cultural preferences towards homeownership, remains highly significant, and the OLS estimates correspond to the marginal effects of the probit estimation.⁴³

Bertrand et al. [2004] stress the importance of consistent standard errors. In line with Bertrand et al. [2004]'s suggestion, we use robust Huber-White-sandwich standard errors, since the number of clusters (countries of origin) is 33 and hence too small for using clustered standard errors. Nevertheless, we check the impact of using clustered standard errors, and our results do not change.⁴⁴

6.2 Definition of second-generation immigrant status

We use a different definition for second-generation immigrants. In the baseline we define a second-generation immigrant as someone being born in the United States and whose father is born abroad. Instead, we define a second-generation immigrant as someone being born in the United States, and whose parents, either father or mother are born abroad. The results do not change.⁴⁵

6.3 Omitted variables (parental income)

Omitted variables are always a serious concern when employing the epidemiological approach. In our specific case, the most likely candidate for an omitted variable is unobserved parental income of the second-generation immigrant. Our estimate could be biased if the parental income varies in a systematic fashion across coun-

⁴³Appendix B, robustness checks 1a-1c, tables (B1) and (B2).

⁴⁴Appendix B, robustness check 25, table (B11).

⁴⁵Appendix B, robustness check 24, table (B10).

tries of origin and if parents are a source of financial help to become a homeowner. If the positive coefficient of our cultural preference proxy would be driven by this omitted variable, then parents from high homeownership countries would need to be systematically richer compared to parents from low homeownership countries.⁴⁶

We do not have the data on parental income nor wealth, but we study the characteristics of first-generation immigrants in our sample - the generation the parents of our subjects of study belong to. Table (A3) in appendix A shows that first-generation immigrant's income is not significantly correlated with homeownership rates prevailing in the country-of-origin.⁴⁷

To address this concern thoroughly, we construct four different parental income proxies and include them in the baseline specification separately.

The first parental income proxy measures the "yearly average personal income of the first-generation immigrants group the parents of the second-generation immigrant i correspond to".⁴⁸ We find that parental income has a positive and statistically significant impact on the probability of becoming a homeowner for a second-generation immigrant. The quantitative impact is about one-fourth of the size of the impact of cultural preferences towards homeownership. The proxy for cultural preferences towards homeownership remains highly significant, although larger in magnitude - suggesting that homeownership rates in the countries of origin and income of the corresponding first-generation immigrant groups (the parents) are negatively correlated. This observation is in line with the above-mentioned literature and cross-country correlations.

The results are very similar when we use instead the average household income of the first-generation immigrants group or the yearly average household income of

 $^{^{46}}$ On a general note, it is highly unlikely that parents from higher homeownership countries were systematically richer before emigrating, as it is widely accepted in the literature that homeownership rates and income are negatively correlated across countries. On average, countries with larger homeownership rates, are characterized with a lower GDP per capita; see e.g. Oxley [1984], Fisher and Jafee [2003] or Davis [2012]. These negative cross-country correlations between homeownership rates and income hold irrespective of measuring income by (1) real GDP per capita or (2) real GDP per capita, adjusted for purchasing power parity. Assuming for now that this cross-country pattern persists after emigrating, then omitting parental income would lead to an underestimation of our cultural preference effect. As immigrants from richer countries (on average richer), are those emigrating from countries with lower homeownership rates, the coefficient of HO_{org} would pick up the effect of this omitted variable and would be biased downwards.

⁴⁷The correlation between the homeownership rate in the country-of-origin and income of the corresponding first-generation immigrant group is equal to -0.16. If we take this small correlation seriously, we would conclude that first-generation immigrants from high homeownership countries are poorer. This would downward bias the impact of the cultural preference.

⁴⁸Appendix B, table (B8) shows the regression results in column 1.

the first-generation immigrants group.⁴⁹

The fourth parental income proxy is given by real GDP per capita (PPP adjusted) prevailing in the country-of-origin.⁵⁰ We find that this parental income proxy has no statistically nor economically significant impact on the probability of becoming a homeowner for second-generation immigrants. The proxy for cultural preferences towards homeownership remains highly significant, although slightly larger in magnitude - suggesting that homeownership rates in the countries of origin and GDP per capita (PPP) are negatively correlated.

Given these four robustness checks, we conclude that our baseline results do not suffer from an upward bias by omitting parental income.

6.4 Location of residence and local housing markets

In this paper, we focus and emphasize demand-side explanations for the homeownership decision of second-generation immigrants. However, we also control for supply-side factors in the regression analysis.

Metropolitan areas (MSAs) might differ in housing market structures or housing costs. We control for these differences, regardless of their source, by including a vector of 415 metropolitan area and year dummies. Metropolitan areas are defined as specific counties or groups of counties centering on a substantial urban area.⁵¹

For robustness check purpose, we present three alternative regression specifications to account for potential systematic differences across locations of residence. One specification includes the interaction term metropolitan area \times year. Another specification uses the interaction term of metropolitan central city status per year dummies, $MCC \times Year$. For households within metropolitan areas, the metropolitan central city status specifies whether the household is located inside or outside

 $^{^{49}}$ Appendix B, table (B8) shows the regression results in column 2, when using the The second parental income proxy "average household income of the first-generation immigrants group the parents of the second-generation immigrant i correspond to". While column 3 shows the regression results when using the third parental income proxy, the "yearly average household income of the first-generation immigrants group, the parents of the second-generation immigrant i correspond to".

 $^{^{50}\}mathrm{Appendix}$ B, table (B8) shows the regression results in column 4.

⁵¹House price cycles vary systematically across regions in the United States, see Sinai [2012]. Therefore it is particularly important to include a large set of location dummies, as well as time dummies to account for house price effects in a specific year and location of residence.

⁵²We show the regression results of the baseline excluding the metropolitan area and year dummies in Appendix B, RC 12, table (B7), column 1.

⁵³Appendix B, RC 13, table (B7), column 2.

⁵⁴Appendix B, RC 14, table (B7), column 3.

the central city of the metropolitan area. The results barely change.

We address the concern that housing affordability might differ across MSAs explicitly. We proxy local housing affordability by homeownership rates at the MSA level and include these MSA homeownership rates in the baseline regression. We find that our variable of interest, the proxy for preferences towards homeownership remains positive and highly significant, while the MSA homeownership rate is not statistically significant.⁵⁵

We conclude that our results are not driven by systematic differences in the location of residence of second-generation immigrants within the United States.

6.5 Systematic Selection of Immigrants and Sample Selection

This is an important empirical issue when studying the behavior of immigrants. Immigrants may not be representatives of their home country and might be systematically different depending on the country-of-origin. The reasons for emigration might be different depending on the country-of-origin. Further, one might be concerned that the difficulty of assimilation into the United States (e.g. learning the language of the host country) might vary in a systematic fashion depending on the country-of-origin.

We address this systematic selection concern by studying second-generation immigrants instead of first-generation immigrants. A second-generation immigrant has been born, raised and lives in the United States, and possesses the US nationality. The potential concern of a systematic selection is less prominent when studying second-generation immigrants. We study the observed characteristics of the second-generation immigrants, grouped by country-of-origin. Table (A2) shows that the average second-generation immigrant is not systematically different to a native (someone being born in the US and having a father born in the US).

One could argue that studying second-generation immigrants does not entirely solve the problem of a potential systematic selection, because if the parents vary in a systematic fashion depending on the country-of-origin, then the children might be, e.g., genetically, different as well. If second-generation immigrants with the same country of ancestry have an unobserved characteristic in common, that affects their homeownership decision, and if this unobserved attribute positively correlates with the homeownership rate in the country-of-origin, we might misinterpret our results as

⁵⁵Appendix B, RC 15, table (B7), column 4.

evidence for cultural preferences regarding homeownership. To address this concern, we follow the literature and add several aggregate variables at the country-of-origin level to our baseline specification. We add country-of-origin GDP per capita, average years of schooling, as well as the share of labor income in GDP.⁵⁶ Our proxy for cultural preferences for homeownership remains highly significant, while the additional aggregate country-of-origin variables are not statistically significant.⁵⁷

We also examine the characteristics of first-generation immigrants - the generation the parents of our subjects of study belong to. Table (A3) shows the correlations of average first-generation immigrant's characteristics (income, education levels, age, etc.) with homeownership rates prevailing in the country-of-origin. The correlations are low. We find that first-generation immigrants from high homeownership countries, are on average less educated, and have less income and savings.

In addition, we present nine sample size variations robustness checks, where we exclude countries of origin that might have been systematically different and therefore induced systematically different types of emigrants (i.e. the parents of our subjects of study). We exclude countries-of-origin that have experienced a war during 1945-1994. The time window 1945-1994 corresponds to the time when the parents emigrated to the United States. We also run one specification where we exclude countries that have been post-soviet states, or countries that have experienced dictatorships during 1945-1994. Our baseline results are very robust to these sample size variations.⁵⁹

In other specifications, we drop those second-generation immigrants that come from a country-of-origin for which we have less than 100 (200) observations.⁶⁰ In one robustness check, we drop all second-generation immigrants with Mexican origin from the sample, because they form the largest group (29% of the baseline's observations) and may drive our result (RC 6). We also find that our results survive excluding the two countries of origin that have the largest number of observations (Mexico and Italy, we lose 45% of the baseline's observations).⁶¹

⁵⁶Refer to RC 20-23, appendix B, table (B9).

⁵⁷Following Fernández and Fogli [2009], we also perform placebo regressions, the results are available upon request. Country-of-origin homeownership rates have no statistically significant impact on, e.g., income or education. Hence, we conclude that unobserved human capital characteristics and unobserved discount factors are unlikely to bias our baseline estimate.

⁵⁸Refer to RC 9, appendix B, table (B6), column 1.

⁵⁹Appendix B, RC 10 and RC 11, table (B6), column 2, and column 3, respectively.

⁶⁰Appendix B, RC 4 and RC 5, table (B4), column 2, and column 3, respectively.

⁶¹Appendix B, RC 6 and RC 7, table (B5), column 1, and column 2, respectively.

Lastly, we include five more countries-of-origin in comparison to our baseline sample (Bulgaria, Cyprus, Estonia, Iceland, and Singapore). In the baseline, we exclude these countries of origin, as each country has less than twenty observations. The estimation results are very similar.⁶²

We conclude from this wide range of robustness checks that our results are not driven by a systematic selection of second-generation immigrants nor by sample selection.

6.6 Measurement of cultural homeownership preferences

The critical reader might raise the concern that parents of second-generation immigrants are not a random sample of the distribution of beliefs and preferences regarding homeownership in the country-of-origin. Hence, the cultural values transmitted to the second-generation immigrant may not reflect the average cultural preference towards homeownership of the country-of-origin. This is not a major concern as this factor would bias the test of the hypothesis against finding any effect of culture on the homeownership decision of the second-generation immigrant. More generally, the reader may suspect that aggregate homeownership rates might not only capture preferences towards homeownership but may also capture institutions, differences in taxation, etc. This is definitely true. However, only the cultural preference component of homeownership rates prevailing in the country-of-origin can have explanatory power for the tenure decision of individuals born and raised in the United States.

Our baseline results are robust to two alternative proxies for cultural preferences towards homeownership. Instead of using the quantitative continuous variable aggregate homeownership rates in the country-of-origin, we construct a dummy variable that is equal to one if the homeownership rate in the country-of-origin is larger than 70.8% (average value) and zero otherwise.⁶³ The second alternative proxy is a dummy variable and equal to one if the homeownership rate in the country-of-origin is larger than 71.1% (median value) and zero otherwise.⁶⁴

⁶²Appendix B, table (B4), column 1.

⁶³The countries having homeownership rate above the median are: Romania, Lithuania, Croatia, Hungary, Slovakia, Norway, Spain, Poland, Latvia, Malta, Czech Republic, Greece, Portugal, Finland, Italy, Belgium, Mexico, Ireland.

⁶⁴The estimation results are presented in appendix B, table (B3), column 1 and 2.

7 Conclusion

This paper argues that cross-country differences in cultural preferences regarding homeownership are an important explanatory factor for the large and persistent cross-country differences in homeownership rates that we observe in the data.

By studying second-generation immigrants, we credibly disentangle the effect of cultural preferences from the effects of markets and institutions. In our baseline sample, we find no homeownership gap between the average second-generation immigrant and a native household.⁶⁵ However, we discover considerable variation in aggregate homeownership rates across second-generation immigrants groups from different cultural backgrounds. In fact, the persistent cross-country differences in homeownership rates are replicated by their descendants in the United States.

We robustly show that the aggregate homeownership rate in the father's countryof-origin, our cultural proxy, has a significant and sizeable impact on the homeownership decisions of second-generation immigrants living in the United States. The results hold after controlling for a large set of individual characteristics that are known to affect the tenure choice. We also account for systematic differences over time and across metropolitan areas of the second-generation immigrant's residence.

Given that our subjects of study are second-generation immigrants, we suspect the quantitative impact of the presented baseline estimate to be a lower bound for the general effect of culture on the homeownership decision. To unravel these effects and thereby explore the impact of cultural preferences on the homeownership decision in a sharper way, we split the group of second-generation immigrants further into more homogeneous subgroups.

To best reflect and proxy cross-country differences in the preference for homeownership, we focus on second-generation immigrants household heads that are married to a spouse of the same cultural background. For a second-generation immigrant, the spouse may play an important role in preserving the beliefs and preferences. Further, one can argue that a second-generation immigrant marrying a spouse of the same cultural background, might be more embedded in the culture of ancestry than a second-generation immigrant marrying a spouse of different cultural background. We find that the effect of culture is largest for this subgroup. The cultural proxy is significant and the marginal effect is more than twice as large compared to

⁶⁵The average second-generation immigrant does also not differ significantly regarding socioeconomic characteristics from a native (that has parents born in the US).

singles, while nine times larger compared to household heads that are married to a spouse of a different cultural background.

Further, we show that cultural preferences for homeownership are persistent, transmitted between generations and that they substantially influence the rent-versus-buy decision. The impact of cultural preferences is quantitatively large. An increase in the homeownership rate in the country of father's origin by one standard deviation (across countries) is associated with a 3.7 percentage point increase in the probability that an average married second-generation immigrant (with a spouse of the same cultural background) is a homeowner in the United States. This accounts for 39% of the variation in the homeownership rate across second-generation immigrant groups within the United States.

Our results are relevant for policy. Huber [2017] shows for a sample of 18 OECD countries, that countries characterized by larger homeownership rates, are those countries that are more vulnerable to housing bubbles, and generally characterized by more volatile housing markets. To develop an effective macro-prudential policy tool for the control of e.g. European housing markets, country heterogeneity in homeownership rates needs to be taken into account. Therefore it is helpful to understand where the large and persistent cross-country differences in homeownership rates originate from.

8 Appendix A

8.1 Summary and Descriptive Statistics

Country	year	Homeownership
Romania	2011	96.6
Lithuania	2011	92.3
Croatia	2011	92.1
Hungary	2012	90.5
Slovakia	2011	90.2
Singapore	2012	90.1
Bulgaria	2011	87.2
Norway	2011	84.0
Estonia	2011	83.5
Spain	2011	82.7
Poland	2011	82.1
Latvia	2012	81.2
Malta	2011	80.8
Czech Republic	2012	80.4
Iceland	2011	77.9
Slovenia	2011	77.5
Greece	2011	75.9
Portugal	2011	75.0
Finland	2012	73.9
Cyprus	2011	73.8
Italy	2011	72.9
Belgium	2011	71.8
Mexico	2011	71.1
Ireland	2011	70.2
Sweden	2011	69.7
Canada	2006	69.0
Chile	2006	69.0
Australia	2010	68.8
Israel	2008	68.8
Luxembourg	2011	68.2
United Kingdom	2011	67.9
Denmark	2011	67.1
Netherlands	2011	67.1
France	2011	63.1
Japan	2010	60.0
Turkey	2011	59.6
Austria	2011	57.5
South Korea	2005	57.3
Germany	2011	53.4
New Zealand	2006	53.2
Switzerland	2011	43.8

Source: PEW Research Center. Based on: Eurostat; US Census Bureau; Turkish Statistical Institute; Statistics Canada; Singapore Department of Statistics; Australien Bureau of Statistics; Statistics New Zealand; Housing Finance Information Network.

Table A1: Aggregate Homeownership Rates in %

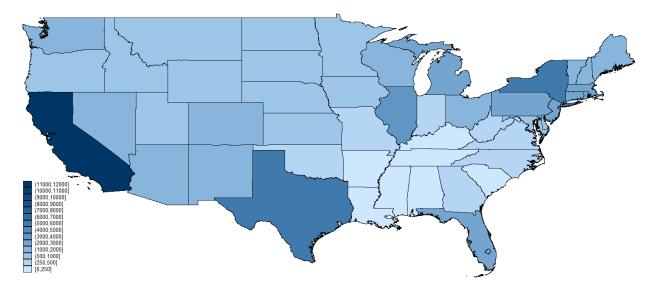


Figure A1: Distribution of 2^{nd} generation immigrants across U.S. States

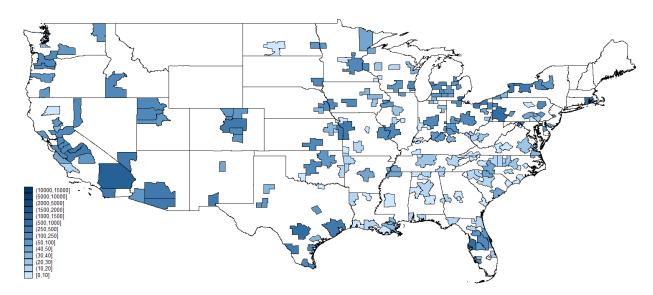


Figure A2: Distribution of 2^{nd} generation immigrants across MSAs

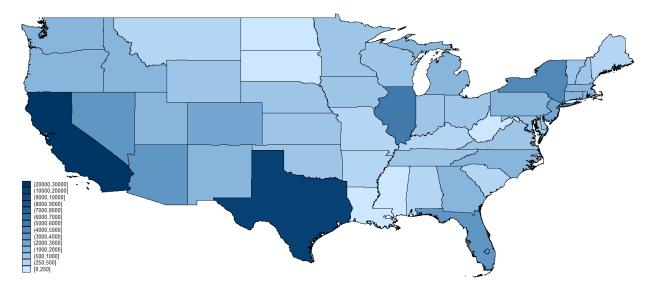


Figure A3: Distribution of $\mathbf{1}^{st}$ generation immigrants across U.S. States

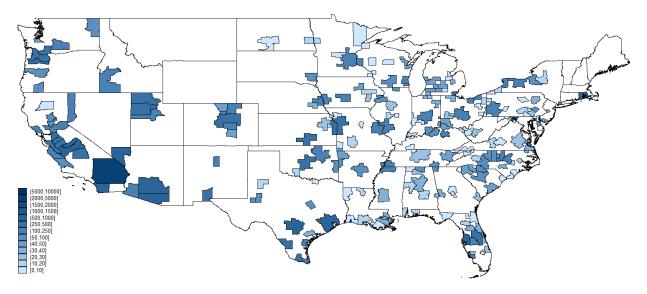


Figure A4: Distribution of $\mathbf{1}^{st}$ generation immigrants across MSAs

					Second	_	Generation Immigrants: Summary Statistics	ants: Sumn	nary Stat	istics I						
Father's	020	Molo	Marital	Jo #	Fmmlowd	Un-	Not in	Household	Interest	Rental	High School	College	College	Nobe	HO	HO
birthplace	uge.	Mare	status	children		employed	labor force	income	income	income	(or less)	$\rm w/o~degree$	degree	SOON	11 Cim	11 Corg
Natives	48.8	0.53	0.53	0.87	99.0	0.03	0.31	64601	1586	589	0.42	0.18	0.38	1,271,469	70.19	66.2
Australia	57.2	0.5	0.44	0.48	0.49	0.03	0.47	80924	1839	1144	0.26	0.25	0.48	118	8.79	8.89
Austria	2.69	0.47	0.41	0.26	0.3	0.01	0.69	53030	3401	810	0.5	0.15	0.35	1043	76.51	57.5
Belgium	62.2	0.53	0.57	0.52	0.42	0.03	0.56	64631	4064	1075	0.48	0.18	0.34	221	75.57	71.8
Canada	58.7	0.54	0.53	0.59	0.51	0.03	0.47	61037	2185	851	0.45	0.18	0.37	0699	75.38	0.69
Chile	39.1	9.0	0.41	0.7	8.0	0.03	0.17	71505	1106	1887	0.21	0.24	0.55	123	86.09	0.69
Croatia	58.3	0.55	0.53	0.64	0.61	0.01	0.38	99819	3508	1338	0.28	0.13	0.59	101	83.17	92.1
Czech Republic	69.2	0.46	0.45	0.24	0.3	0.03	0.67	49406	3264	1024	0.53	0.13	0.35	217	82.49	80.4
Denmark	69.1	0.53	0.47	0.26	0.33	0.03	0.65	55805	3350	1799	0.45	0.21	0.34	485	78.76	67.1
England	60.1	0.53	0.5	0.5	0.46	0.03	0.51	61680	3000	694	0.39	0.19	0.42	2234	74.75	6.79
Finland	70.8	0.47	0.42	0.24	0.24	0.01	0.75	45199	2665	970	0.52	0.17	0.31	238	77.31	73.9
France	54.0	0.5	0.45	0.53	0.56	0.04	0.41	59767	2041	484	0.35	0.19	0.46	535	67.29	63.1
Germany	59.5	0.53	0.5	0.58	0.49	0.03	0.49	62760	2788	940	0.44	0.17	0.39	5307	74.47	53.4
Greece	55.4	0.52	0.48	0.62	0.54	0.02	0.44	75456	2460	1321	0.33	0.2	0.47	1168	75.86	75.5
Hungary	63.8	0.49	0.47	0.46	0.39	0.03	0.59	63780	3511	852	0.48	0.16	0.36	1328	76.05	90.5
Ireland	62.0	0.53	0.49	0.56	0.45	0.03	0.53	66714	2833	945	0.37	0.18	0.46	2562	76.23	70.2
Isreal/Palestine	39.3	0.49	0.52	1.3	0.67	0.03	0.31	85815	1145	1077	0.3	0.14	0.56	167	47.9	8.89
Italy	65.5	0.52	0.49	0.43	0.35	0.03	0.63	52741	2694	643	0.58	0.14	0.28	10835	78.26	72.9
Japan	69.4	0.54	0.48	0.36	0.26	0.01	0.73	59068	3647	1365	0.5	0.14	0.36	2234	78.83	0.09
Latvia	55.8	0.48	0.57	0.06	0.59	0.01	0.4	84477	4267	402	0.12	0.17	0.71	145	85.52	81.2
Lithuania	68.4	0.43	0.41	0.35	0.3	0.01	69.0	55076	4344	1056	0.46	0.17	0.38	550	76.36	92.3
Mexico	42.2	0.51	0.48	1.09	0.65	0.02	0.3	52474	610	249	0.58	0.21	0.21	19836	55.81	71.1
Netherlands	58.4	0.58	9.0	0.73	0.56	0.03	0.42	71048	1999	1449	0.46	0.13	0.41	848	81.13	67.1
New Zealand	38.6	0.37	0.33	0.96	0.81	0.04	0.15	88651	5028	1156	0.37	0.26	0.37	27	59.26	53.2
Norway	9.89	0.49	0.49	0.29	0.31	0.03	0.67	51324	3505	1507	0.51	0.17	0.32	1128	78.46	84.0
Poland	68.1	0.49	0.44	0.35	0.32	0.01	0.67	53367	3246	743	0.53	0.14	0.32	4746	80.3	82.1
Portugal	53.1	0.47	0.48	0.06	0.52	0.04	0.44	56319	1680	692	0.54	0.16	0.3	948	65.72	75.0
Romania	65.3	0.5	0.51	0.4	0.39	0.01	0.59	69445	5207	1361	0.36	0.2	0.44	371	76.55	9.96
Scotland	61.4	0.51	0.55	0.5	0.5	0.01	0.49	65973	2733	565	0.36	0.2	0.44	954	80.08	6.79
Slovakia	69.2	0.48	0.42	0.34	0.31	0.05	0.67	41448	2519	836	0.65	0.13	0.23	661	79.12	90.2
South Korea	35.5	0.58	0.32	0.42	0.63	0.04	0.32	77182	1917	739	0.2	0.19	0.61	228	47.81	57.3
Spain	55.5	0.55	0.48	0.55	0.53	0.03	0.45	67202	2122	669	0.38	0.19	0.44	691	68.74	82.7
Sweden	69.5	0.49	0.43	0.3	0.31	0.01	89.0	48603	3134	823	0.46	0.21	0.33	1080	78.89	2.69
Switzerland	64.3	0.47	0.45	0.31	0.4	0.03	0.58	58640	3137	889	0.4	0.23	0.37	326	80.37	43.8
Turkey	58.0	0.49	0.43	0.35	0.5	0.01	0.48	61919	3388	1611	0.35	0.16	0.5	216	71.76	59.6
United Kingdom	52.6	0.51	0.49	0.61	0.54	0.05	0.4	71150	2148	1159	0.29	0.16	0.55	347	67.72	6.79
Wales	9.02	0.44	0.33	0.17	0.28	0.00	0.72	66704	3684	3389	0.39	0.56	90.0	18	55.56	6.79
Average	56.9	0.52	0.48	0.65	0.48	0.03	0.49	57046.80	2176.84	692.30	0.51	0.18	0.32	1907.39	70.49	70.83
Std. deviation	20.2	0.50	0.50	1.06	0.50	0.16	0.50	67680.23	8723.57	5836.16	0.50	0.38	0.47	3736.86	9.47	11.90
Correlation																
$^{ m W}/~HO_{origin}$	0.29	-0.03	0.24	-0.09	-0.23	-0.29	0.24	-0.05	0.21	-0.01	0.16	-0.21	-0.02	-0.04	0.31	1.00

Number of observations: 68666. Male dummy: equal to one if male. Marital status dummy: equal to one if married and living with partner. Household income: total annual household income. Interest income (saving 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. HO_{im} denotes the aggregate homeownership rate of the corresponding proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy second-generation immigrant group. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011.

Table A2: Characteristics of 2^{nd} generation immigrants in the baseline sample

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					First-G	Generation		Immigrants: Summary Statistics II	y Statist	ics II						
Birthplace	Age	Male	Marital	fo #	Employed	Un-	Not in	Household	Interest	Rental	High School	College	College	Nobs	HO_{im}	HO_{org}
Natives	48.8	0.53	0.53	0.87	99.0	0.03	0.31	64601	1586	589 589	(or ress) 0.42	w/0 degree 0.18	0.38	1.271.469	70.19	66.2
Australia	45.9	0.54	0.61	0.92	0.73	0.04	0.24	114284	2776	2116	0.21	0.15	0.64	346	62.14	68.8
Austria	62.7	0.5	0.48	0.41	0.45	0.03	0.53	66527	2469	890	0.35	0.15	0.5	345	76.52	57.5
Belgium	52.7	0.47	0.56	0.85	0.59	0.03	0.38	96346	2253	1752	0.22	0.14	0.64	179	75.98	71.8
Canada	53.2	0.5	0.57	0.75	9.0	0.02	0.37	78324	2198	844	0.36	0.17	0.47	4063	73.2	69
Chile	46.7	9.0	0.62	0.0	0.71	0.04	0.26	62471	1369	482	0.33	0.14	0.54	762	48.03	69
Croatia	51.4	0.66	0.63	0.73	0.73	0.01	0.26	102836	2243	1314	0.4	0.09	0.5	107	70.09	92.1
Czech Republic	50.8	0.62	0.55	0.86	0.65	0.01	0.35	71206	1139	22.2	0.37	80.0	0.55	178	65.17	80.40
Denmark	56.8	0.45	0.49	0.56	0.57	0.01	0.43	89123	2478	1102	0.21	0.15	0.64	176	69.32	67.10
England	54.2	0.5	0.56	0.73	0.61	0.02	0.37	81638	2780	731	0.32	0.17	0.51	2907	74.48	06.79
Finland	54.4	0.37	0.45	0.59	0.55	0.03	0.43	82938	1405	1604	0.29	0.12	0.59	119	67.23	73.90
France	51.4	0.47	0.5	89.0	0.66	0.01	0.33	82005	2374	715	0.25	0.13	0.62	988	62.64	63.1
Germany	58.5	0.43	0.51	0.49	0.5	0.02	0.48	00689	2694	755	0.36	0.16	0.48	3451	75.59	53.4
Greece	55.4	0.63	9.0	98.0	9.0	0.03	0.37	64078	2191	1030	0.56	0.12	0.32	696	75.54	75.5
Hungary	57.9	0.57	0.62	0.64	0.49	0.04	0.47	65118	3073	1169	0.36	0.14	0.51	618	71.68	90.5
Ireland	56.1	0.52	0.51	0.71	0.56	0.02	0.42	73413	2131	551	0.44	0.15	0.42	1134	80.89	70.2
Isreal/Palestine	41.1	89.0	0.65	1.49	92.0	0.03	0.21	87836	1259	245	0.33	0.1	0.57	389	55.27	8.89
Italy	59.2	0.58	9.0	0.75	0.5	0.02	0.48	63544	1987	1242	0.61	0.1	0.29	3025	76.79	72.90
Japan	49.5	0.44	0.45	0.53	0.59	0.01	0.4	64114	1658	427	0.28	0.12	0.59	2194	47.54	09
Latvia	62.1	0.43	0.53	0.49	0.45	0.03	0.52	57293	1904	846	0.14	0.22	0.65	102	78.43	81.2
Lithuania	56.2	0.45	0.52	0.06	0.52	0.05	0.43	65211	1809	1549	0.24	0.17	0.59	245	63.27	92.3
Mexico	41.4	0.59	0.63	1.66	69.0	90.0	0.25	41833	220	166	0.84	80.0	0.08	64461	45.27	71.10
Netherlands	55.5	0.61	0.64	0.69	0.65	0.01	0.34	94315	3304	1761	0.26	0.18	0.56	286	78.84	67.10
New Zealand	44.9	0.47	0.67	1.09	0.78	0.02	0.21	108631	2276	476	0.2	0.14	0.06	116	59.48	53.2
Norway	62.7	0.49	0.47	0.53	0.38	0.02	9.0	66881	3855	520	0.33	0.19	0.48	235	74.89	84
Poland	52.9	0.52	0.59	0.75	0.61	0.03	0.35	64418	1926	892	0.42	0.16	0.41	2896	67.37	82.1
Portugal	51.1	0.58	0.67	П	0.63	0.04	0.33	61401	1340	966	0.74	0.09	0.16	1407	71.07	72
Romania	48.1	0.57	0.06	0.89	69.0	0.03	0.28	86672	2127	269	0.32	0.12	0.56	662	66.31	9.96
Scotland	57.6	0.47	0.53	0.64	0.52	0.03	0.46	72334	2367	504	0.38	0.21	0.41	629	69.95	06.29
Slovakia	56.5	0.45	0.52	0.63	0.51	0.01	0.47	56357	2068	145	0.43	0.11	0.46	237	71.73	90.5
South Korea	45.3	0.54	9.0	0.83	0.65	0.03	0.32	61138	856	522	0.31	0.12	0.56	2606	43.75	57.3
Spain	56.4	0.53	0.5	0.59	0.54	0.02	0.44	63826	1989	292	0.38	0.14	0.47	1261	62.49	82.7
Sweden	26	0.42	0.57	0.82	0.52	0.02	0.47	87999	2153	1089	0.23	0.12	0.64	250	72	2.69
Switzerland	56.3	0.52	0.53	0.65	0.61	0.02	0.37	87788	5140	2178	0.21	0.11	0.68	246	75.2	43.8
Turkey	47.4	0.66	9.0	0.87	0.64	0.04	0.33	74375	1261	475	0.34	0.1	0.55	615	49.11	59.6
United Kingdom	51.4	0.58	99.0	0.75	0.71	0.03	0.26	120317	2640	703	0.17	0.13	0.7	989	75.31	06.79
Wales	73.8	0.33	0.25	0.25	0.33	0	0.67	46196	4430	1733	0.25	0.17	0.58	12	29.99	06.79
Average	53.71	0.52	0.56	0.76	0.59	0.03	0.39	75741.28	2226.17	923.36	0.35	0.14	0.52	271.23	66.84	71.71
Std. Deviation	6.48	0.08	0.08	0.26	0.10	0.01	0.11	18143.41	941.83	531.81	0.15	0.03	0.14	286.35	6.6	12.06
Correlation																
w/ HOorigin	0.11	0.14	0.11	-0.01	-0.14	0.16	0.11	-0.16	-0.18	90.0-	0.19	0.01	-0.21	90.0	0.17	-

Number of observations: We restricted this sample to those first-generation immigrants that emigrated from countries of origin that are included in our baseline sample. Male dummy: equal to one if male. Marital status dummy: equal to one if married and living with partner. Household income: total annual household income. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. HO_{im} denotes the aggregate homeownership rate of the corresponding first-generation immigrant group. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011.

Table A3: Characteristics of 1^{st} generation immigrants

8.2 Additional Results

	Hypothesis tested	Z-value	Accept if	Accepted
	$H_1: \beta^{single} > \beta^{married_{\neq}}$	1.43	Z > 1.645	no
2.	$H_2: \beta_2^{married_{same}} > \beta_2^{married_{\neq}}$	2.14	Z > 1.645	yes
3.	$H_3: \beta_2^{married_{same}} > \beta_2^{single}$	1.647	Z > 1.645	yes

 $z=rac{(eta_1-eta_2)}{\sqrt{(s_1^2+s_2^2)}},$ where s_i is the standard deviation of coefficient eta_i . An one-sided Z-test with lpha=0.05, implies a z-score of 1.645.

Table A4: Z-tests: comparing coefficients across models

Aggregates

We compute aggregate homeownership rates H_{i_o} for all second-generation immigrants i with a father born in the country-of-origin o. Figure (2) plots the aggregate homeownership rates HO_{i_o} against our cultural proxy, i.e. the aggregate homeownership rates of the country of father's origin. The correlation is positive and equal to 0.32. Higher homeownership countries are associated with higher homeownership rates of their descendants living in the United States. We run a corresponding (and basic) OLS regression:

$$H_{i_o} = \beta_0 + \beta_1 H O_{origin} + \varepsilon_{io}$$

The results can be found in table (A5) in the appendix. Our proxy for cultural preferences towards homeownership is significant, positive and large. An increase in the homeownership rate in the country of the father's origin o by one standard deviation (across countries) is associated with an increase of in the homeownership rate of the corresponding second-generation immigrant group in the United States by 3.35 %-points, which is about 27.22% of the variation in the homeownership rate across immigrant groups within the United States. We take these results as additional evidence that cultural preferences for homeownership matter when it comes to the actual homeownership decision.

Dependent variable	: Aggregate Homeownership Rate
of second-gener	ration immigrant groups H_{im}
HO_{origin}	0.244*
	(0.126)
N	33
R^2	0.105
adj. R^2	0.076

Standard errors in parentheses. * p<0.1, ** p<0.05, *** p<0.01.

Table A5: OLS - Culture and Homeownership - Aggregates

	neber	ndent variat	Dependent variable: nomeownersinp status of z	nersinp stati	us or 2 gene	generation inmigram i	rain i			
	(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)	(10)
HO_{org}	0.0591*** (0.0216)	0.0688***	0.0602*** (0.0216)	0.0673*** (0.0216)	0.0793**** (0.0215)	0.0839****	0.0479** (0.0218)	0.0533** (0.0218)	0.117**** (0.0219)	0.0646*** (0.0231)
race categories		>								>
number of children			>							>
male				>						>
marital status					>					>
education categories						>				>
employment status							>			>
savings								>		>
income categories									>	>
metropolitan area	>	>	>	>	>	>	>	>	>	>
year (dummy)	>	>	>	>	>	>	>	>	>	>
N 1 P3	99989	99989	68666	99989	99989	99989	68666	99989	68666	99989
pseudo R^z	0.044	0.047	0.044	0.052	0.107	0.054	0.048	0.057	0.109	0.228

Marginal effects. * p < 0.1, ** p < 0.05, *** p < 0.01, *** p < 0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is $\in (0, 1)$.

Table A6: Further Insights: adding individual controls

9 Appendix B: Robustness Checks

Robustness Check 1: Alternative Estimation Method (OLS)

Robustness Check 1a: Baseline

We estimate the model in (4.1) with a OLS regression. The estimation results are shown in Table (B1) in the first column. The proxy for cultural preferences towards homeownership remains highly significant and the OLS estimates correspond to the marginal effects. An increase in the homeownership rate in the country of the father's origin o by one standard deviation (across countries) is associated with an increase of in the homeownership rate of the corresponding second-generation immigrant group in the United States by 0.5 %-points, which is about 5.1% of the variation in the homeownership rate across immigrant groups within the US.

Robustness Check 1b: Married Couples

The corresponding OLS results of Table (3) are shown in Table (B1). An increase in the homeownership rate in the country of the father's origin o by one standard deviation (across countries) is associated with an increase of in the homeownership rate of the corresponding second-generation immigrant group in the United States by 2.1%-points, which is about 22% of the variation in the homeownership rate across immigrant groups within the United States.

Robustness Check 1c: Married Couples (2)

The corresponding OLS results of Table (4) are shown in Table (B2). An increase in the homeownership rate in the country of the father's origin o by one standard deviation (across countries) is associated with an increase of in the homeownership rate of the corresponding second-generation immigrant group in the United States by 3.7%-points, which is about 39.21% of the variation in the homeownership rate across immigrant groups within the United States.

Robustness Check 2: Alternative Proxies for Cultural Preferences

Robustness Check 2a: Dummy High Homeownership country (> mean)

We estimate the model in (4.1) with an alternative proxy for cultural preferences for homeownership. The alternative proxy is a dummy variable and equal to one if the homeownership rate in the country-of-origin is larger than 70.81% (mean value) and zero otherwise. The estimation results are shown in Table (B3) in column 1.

Robustness Check 2b: Dummy High Homeownership country (> median)

We estimate the model in (4.1) with an alternative proxy for cultural preferences for homeownership. The alternative proxy is a dummy variable and equal to one if the homeownership rate in the country-of-origin is larger than 71.10 % (median value) and zero otherwise. The estimation results are shown in Table (B3) in column 2.

Robustness Checks 3-11: Varying Sample Sizes

Robustness Check 3: Larger Sample

We estimate (4.1) for all available countries in the sample. The sample includes five more countries-of-origin in comparison to our baseline sample (Bulgaria, Cyprus, Estonia, Iceland, and Singapore). In the baseline, we exclude these countries of origin, as each country has less than twenty observations. The estimation results are very similar. Table (B4) shows the regression results in column 1.

Robustness Check 4: Excluding countries < 100 observations

We estimate (4.1) for a smaller sample of countries. We exclude all countries of origin listed in Table (A1) that have less than 100 observations (Croatia). Table (B4) shows the results in column 2.

Robustness Check 5: Excluding countries < 200 observations

We estimate (4.1) for a smaller sample of countries, all countries of origin listed in Table (A1) that have less than 200 observations (Australia, Croatia, Chile, Israel, Palestine, New Zealand, Latvia) are excluded. Table (B4), column 3.

Robustness Check 6: Excluding Mexico (country-of-origin with most observations) We estimate (4.1) for a smaller sample of countries. We exclude the country-of-origin that has the largest number of observations, i.e., Mexico. We lose 29% of the baseline observations. Table (B5) shows the regression results in column 1.

Robustness Check 7: Excluding Mexico and Italy

We estimate (4.1) for a smaller sample of countries. We exclude the two countries of origin that have the largest number of observations, i.e., Mexico and Italy. We lose 45% of the baseline observations. Table (B5) shows the results in column 2.

Robustness Check 8: Excluding Outliers

We estimate (4.1) for a smaller sample of countries. We exclude all countries of origin from the baseline sample that cluster in the left bottom corner in Figure (1), we exclude Israel, Palestine, Mexico, South Korea, New Zealand. Table (B5) shows the regression results in column 3.

Robustness Check 9: Excluding "war countries"

We estimate (4.1) for a smaller sample of countries. We exclude all countries of origin listed in Table (A1) that have been affected by wars between 1945-1994, and therefore might have induced systematically different types of emigrants (i.e., the parents of our subjects of study). We exclude Israel/Palestine, Croatia, and South Korea. Table (B6) shows the regression results in column 1.

Robustness Check 10: Excluding "dictatorship countries"

We estimate (4.1) for a smaller sample of countries. We exclude all countries of origin from the baseline sample that had a dictatorship at some point between 1945-1994, and therefore might have induced systematically different types of emigrants (i.e., the parents of our subjects of study). We exclude Portugal, Spain, and Greece. Refer to Table (B6) in column 2.

Robustness Check 11: Excluding Post-Soviet States

We estimate (4.1) for a smaller sample of countries. We exclude all countries of origin from the baseline sample that are Post-Soviet States (Lithuania, Estonia, and Latvia), and therefore might have induced systematically different types of emigrants (i.e., the parents of our subjects of study). Table (B6) shows the regression results in column 3.

Robustness Check 12-15: Varying Controls of Location of Residence

Robustness Check 12: Without metropolitan area and year dummies We estimate (4.1) without F_m and F_t , the large sets of metropolitan area and time dummies. Table (B7) shows the regression results in column 1. Robustness Check 13: Metropolitan area per year dummies (instead of metropolitan area and year dummies)

We estimate (4.1) without F_m and F_t , the large sets of metropolitan area and time dummies. Instead, we include $MSA \times Year$, a set of metropolitan area per year dummies. Table (B7) shows the regression results in column 2.

Robustness Check 14: Metropolitan central city status per year dummies

We estimate (4.1) without F_m and F_t , the large sets of metropolitan area and time dummies. Instead, we include $MCC \times Year$, a set of metropolitan central city status per year dummies. For households within metropolitan areas, the metropolitan central city status specifies whether the household is located inside or outside the central city of the metropolitan area. Table (B7) shows the results in column 3.

Robustness Check 15: Housing Affordability across MSAs

We add to baseline specification a proxy for housing affordability. Including homeownership rates at the MSA level will capture differences in housing affordability across MSAs. Table (B7) shows the results in column 4.

Robustness Checks 16-19: Omitted Parental Income

Robustness Check 16: Parental Income Proxy 1

We add to the baseline the first parental income proxy, the "yearly average personal income of the 1^{st} generation immigrants group the parents of the 2^{nd} generation immigrant i correspond to". Table (B8) shows the regression results in column 1.

Robustness Check 17: Parental Income Proxy 2

We add to the baseline the second parental income proxy, the "average household income of the 1^{st} generation immigrants group the parents of the 2^{nd} generation immigrant i correspond to". Table (B8) shows the regression results in column 2.

Robustness Check 18: Parental Income Proxy 3

We add to the baseline the third parental income proxy, the "yearly average household income of the 1^{st} generation immigrants group the parents of the 2^{nd} generation immigrant *i* correspond to". Table (B8) shows the regression results in column 3. Robustness Check 19: Parental Income Proxy 4

We add to the baseline the fourth parental income proxy: real GDP per capita (PPP adjusted) prevailing in the country-of-origin. Data source: Penn World Tables. Table (B8) shows the regression results in column 4.

Robustness Checks 20-23: Additional covariates at country-of-origin level

Robustness Check 20: GDP per capita (PPP)

We add to the baseline real GDP per capita (PPPs, in mil. 2011US\$) prevailing in the country-of-origin. Data source: Penn World Tables. Table (B9) shows the regression results in column 1.

Robustness Check 21: Years of education

We add to the baseline average years of schooling at the country-of-origin level. Data source: Penn World Tables. Table (B9) shows the regression results in column 2.

Robustness Check 22: Average wage

We add to the baseline the share of labor the average wage of employees prevailing in the country-of-origin. Data source: Penn World Tables. Table (B9) shows the regression results in column 3.

Robustness Check 23: GDP, Education, Average wage

We add to the baseline we add real GDP per capita (PPP adjusted), average years of schooling, and the average wage of employees. Data source: Penn World Tables. Table (B9) shows the regression results in column 4.

RC 24: Different Definition of 2nd generation immigrants

As common in the related literature, we define a 2^{nd} generation immigrant as someone being born in the United States and whose father is born abroad. Instead, in this specification, we define a 2^{nd} generation immigrant as someone being born in the United States, and whose parents, either father or mother are born abroad. Table (B10) shows the regression results.

Robustness Check 25: Varying Standard Errors

Robustness Check 25a: Clustered Standard Errors at MSA

Instead of using robust Huber-White-sandwich standard errors, we estimate (4.1) with clustered standard errors at the metropolitan area level. Table (B11) shows the regression results in column 1.

Robustness Check 25b: Clustered Standard Errors at country-of-origin Instead of using robust Huber-White-sandwich standard errors, we estimate all main regressions with clustered standard errors at the country-of-origin level. Table (B11) shows the regression results in columns 2-6.

	Dependent V	ariable: Homeow	nership status o	of immigrant i
		2nd ger	neration	
	all (baseline)	single	married ≠ background	married same background
	(1)	(2)	(3)	(4)
HO_{origin}	0.0407**	0.0767**	0.0140	0.175**
•	(0.0184)	(0.0299)	(0.0222)	(0.0856)
male (dummy)	-0.0107***	-0.0278****	0.000364	-0.00577
	(0.00338)	(0.00531)	(0.00499)	(0.00955)
marital status (dummy)	0.149****			
, ,	(0.00370)			
age	0.0223****	0.0197****	0.0287****	0.0272****
	(0.000582)	(0.000779)	(0.00107)	(0.00161)
age squared	-0.000139**** (0.00000542)	-0.000115**** (0.00000737)	-0.000204**** (0.00000955)	-0.000171**** (0.0000153)
number of children	0.00681**** (0.00171)	-0.00778** (0.00306)	0.0142**** (0.00258)	0.0136*** (0.00452)
interest income	\checkmark	\checkmark	\checkmark	\checkmark
rental income	\checkmark	\checkmark	\checkmark	\checkmark
employment status	✓	✓	✓	✓
education categories	\checkmark	\checkmark	\checkmark	✓
income categories	\checkmark	\checkmark	\checkmark	✓
race categories	\checkmark	\checkmark	\checkmark	✓
metropolitan area	\checkmark	\checkmark	\checkmark	✓
year (dummy)	✓	✓	✓	✓
N	68666	35252	22958	8673
R^2	0.254	0.190	0.194	0.280
adj. R^2	0.249	0.180	0.182	0.259

^{*} p<0.1, ** p<0.05, *** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the parents' country-of-origin in 2011 and is $\in (0,1)$.

Table B1: Robustness Check (1a) and (1b): OLS - Baseline and Married

	Dependent Var	iable: Homeowners	hip status of immigrant i
	2nd ger	neration	1st generation
	all	married same	married same
	(baseline)	background	background
	(1)	(2)	(3)
HO_{origin}	0.0407**	0.175**	0.312****
	(0.0184)	(0.0856)	(0.0509)
male (dummy)	-0.0107***	-0.00577	0.00126
	(0.00338)	(0.00955)	(0.00558)
marital status (dummy)	0.149****		
, ,	(0.00370)		
age	0.0223****	0.0272****	0.0252****
	(0.000582)	(0.00161)	(0.00105)
age squared	-0.000139****	-0.000171****	-0.000136****
0 1	(0.00000542)	(0.0000153)	(0.0000109)
number of children	0.00681****	0.0136***	0.0171****
	(0.00171)	(0.00452)	(0.00188)
interest income	✓	✓	\checkmark
rental income	✓	✓	✓
employment status	\checkmark	\checkmark	✓
education categories	\checkmark	\checkmark	\checkmark
income categories	\checkmark	\checkmark	\checkmark
race categories	\checkmark	\checkmark	\checkmark
metropolitan area	\checkmark	\checkmark	\checkmark
year (dummy)	\checkmark	\checkmark	\checkmark
N	68666	8673	38843
R^2	0.254	0.280	0.246
adj. R^2	0.249	0.259	0.238

^{*} p<0.1, *** p<0.05, **** p<0.01, ***** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. For 2^{nd} generation immigrants, HO_{origin} denotes the aggregate homeownership rate in the parents' country-of-origin in 2011 and is $\in (0,1)$. For 1^{st} generation immigrants, HO_{origin} denotes the aggregate homeownership rate in their country-of-origin in 2011 and is $\in (0,1)$.

Table B2: Robustness Check (1c): OLS - Married (2)

Dependent Variable:	Homeownership st	atus of immigrant i
$HO_{high-low}^{mean}$	0.0124*** (0.00420)	
$HO_{high-low}^{median}$		0.0375**** (0.00434)
male (dummy)	-0.00509 (0.00393)	-0.00500 (0.00393)
marital status	0.172**** (0.00417)	0.172**** (0.00417)
age	0.0220**** (0.000641)	0.0218**** (0.000639)
age squared	-0.000136**** (0.00000600)	-0.000135**** (0.0000599)
number of children	0.00235 (0.00198)	0.00303 (0.00198)
interest income	-0.000000316 (0.000000310)	-0.000000341 (0.00000309)
rental income	0.00000265**** (0.00000692)	0.00000262**** (0.00000691)
employment status income categories	√	✓ ✓
education categories	\checkmark	\checkmark
race categories	\checkmark	✓
metropolitan area	\checkmark	√
year (dummy)	\checkmark	\checkmark
N pseudo R^2	68666 0.228	68666 0.229

 $\label{eq:marginal} \text{Marginal effects.} \quad * \text{ p}{<}0.1, \ *** \text{ p}{<}0.05, \ **** \text{ p}{<}0.01, \ ***** \text{ p}{<}0.001.$ Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. $HO_{high-low}^{mean}$ is equal to one if the homeownership rate in the country-of-origin in 2011 is larger than the mean value and zero otherwise. $HO_{high-low}^{median}$ is equal to one if the homeownership rate in the country-of-origin in 2011 is larger than the median value and zero otherwise.

Table B3: Robustness Checks (2a) - (2b): Alternative Proxies Cultural Preferences

Dependent Variable:	Homeownership st	satus of 2^{nd} genera	tion immigrant i
	all countries	no countries	no countries
	(no restrictions)	with <100 obs.	with <200 obs.
	(1)	(2)	(3)
HO_{origin}	0.0615***	0.0652***	0.0591**
	(0.0231)	(0.0232)	(0.0234)
male (dummy)	-0.00514	-0.00483	-0.00473
	(0.00393)	(0.00393)	(0.00395)
marital status	0.173****	0.172****	0.173****
	(0.00417)	(0.00417)	(0.00419)
age	0.0218****	0.0219****	0.0219****
	(0.000639)	(0.000639)	(0.000642)
age squared	-0.000135****	-0.000135****	-0.000135****
	(0.00000599)	(0.00000599)	(0.00000601)
number of children	0.00247	0.00246	0.00243
	(0.00198)	(0.00198)	(0.00199)
interest income	-0.000000316	-0.000000325	-0.000000330
	(0.000000310)	(0.000000310)	(0.000000311)
rental income	0.00000265****	0.00000264****	0.00000265****
	(0.000000690)	(0.000000691)	(0.000000696)
employment status	✓	\checkmark	\checkmark
education categories	✓	\checkmark	\checkmark
income categories	✓	\checkmark	\checkmark
race categories	✓	\checkmark	\checkmark
metropolitan area	✓	\checkmark	\checkmark
year (dummy)	\checkmark	\checkmark	\checkmark
\overline{N}	68715	68639	68152
pseudo R^2	0.228	0.228	0.228

Marginal effects. * p<0.1, ** p<0.05, *** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is $\in (0,1)$. Difference to baseline: In the first column, we add five more countries of origin (Bulgaria, Cyrus, Estonia, Iceland, and Singapore), each country has less than 20 observations. In the second column, we exclude all countries of origin that have less than 100 observations from baseline sample (Croatia). In the third column, we exclude all countries of origin that have less than 200 observations from baseline sample (Australia, Croatia, Chile, Latvia, Israel, Palestine, New Zealand).

Table B4: Robustness Check (3) - (5): Varying Sample Size

Dependent Variable:	Homeownership s	tatus of 2^{nd} gener	ration immigrant i
	Excluding	Excluding	Excluding
	Mexico	Mexico, Italy	ouliers
	(1)	(2)	(3)
HO_{origin}	0.0582***	0.0580***	0.0582***
	(0.0201)	(0.0206)	(0.0200)
male (dummy)	-0.00973**	-0.0102**	-0.00910**
	(0.00416)	(0.00480)	(0.00416)
marital status	0.171****	0.176****	0.171****
	(0.00452)	(0.00519)	(0.00452)
age	0.0232****	0.0246****	0.0231****
	(0.000755)	(0.000862)	(0.000758)
age squares	-0.000155****	-0.000167****	-0.000154****
	(0.00000663)	(0.00000763)	(0.00000664)
number of children	0.0186****	0.0154****	0.0184****
	(0.00264)	(0.00294)	(0.00265)
interest income	-0.000000110	-0.000000107	-0.000000128
	(0.000000286)	(0.000000317)	(0.000000284)
rental income	0.00000217****	0.00000172***	0.00000214****
	(0.000000603)	(0.000000598)	(0.000000600)
employment status	\checkmark	\checkmark	✓
education categories	\checkmark	\checkmark	\checkmark
income categories	\checkmark	\checkmark	\checkmark
race categories	\checkmark	\checkmark	\checkmark
metropolitan area	\checkmark	\checkmark	\checkmark
year (dummy)	✓	✓	✓
N	48737	37749	48484
pseudo R^2	0.206	0.214	0.204

Marginal effects. * p<0.1, ** p<0.05, *** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is \in (0,1). Difference to baseline: In the first column, we exclude the country-of-origin having most observations, Mexico (29% of baseline observations). In the second column, we exclude the two countries of origin that have the largest number of observations, i.e. Mexico and Italy (45% of baseline observations). In the third column, we exclude all countries of origin from baseline sample that are outliers in Figure (2), (South Korea, Israel, Palestine, Mexico, New Zealand).

Table B5: Robustness Check (6) - (8): Varying Sample Size 2

Dependent Variable:	Homeownership s	tatus of 2^{nd} genera	ation immigrant i
	no war	no dictator	no Post-Soviet
	countries	countries	states
	(1)	(2)	(3)
HO_{origin}	0.0565**	0.0630***	0.0667***
	(0.0232)	(0.0235)	(0.0238)
male (dummy)	-0.00471	-0.00502	-0.00478
	(0.00394)	(0.00402)	(0.00396)
marital status	0.172****	0.172****	0.173****
	(0.00418)	(0.00426)	(0.00420)
age	0.0217****	0.0220****	0.0217****
	(0.000640)	(0.000653)	(0.000643)
age squared	-0.000134****	-0.000136****	-0.000133****
•	(0.00000599)	(0.00000612)	(0.00000603)
number of children	0.00236	0.00237	0.00254
	(0.00198)	(0.00202)	(0.00199)
interest income	-0.000000328	-0.000000202	-0.000000334
	(0.000000309)	(0.000000324)	(0.000000312)
rental income	0.00000266****	0.00000319****	0.00000262****
	(0.000000696)	(0.000000752)	(0.000000688)
employment status	\checkmark	\checkmark	\checkmark
education categories	\checkmark	\checkmark	\checkmark
income categories	\checkmark	\checkmark	\checkmark
race categories	\checkmark	\checkmark	\checkmark
metropolitan area	\checkmark	\checkmark	\checkmark
year (dummy)	\checkmark	\checkmark	√
N	68386	65777	68013
pseudo R^2	0.227	0.229	0.228

Marginal effects. * p<0.1, ** p<0.05, *** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is $\in (0,1)$. Difference to baseline: In the first column, we exclude all countries of origin that have been affected by wars between 1945-1994 (Isreal, Palestine, Croatia, South Korea). In the second column, we exclude all countries that experienced a dictatorship during 1945-1994 (Portugal, Spain, Greece). In the third column, we exclude countries of origin that are post-soviet states (Lithuania, Estonia, and Latvia).

Table B6: Robustness Check (9) - (11): Varying Sample Size 3

Dependent Variable: Home				
	w/o MSA nor year dummies (1)	MSA×Year dummy (2)	MCC×Year dummy (3)	Baseline plus HO_{MSA} (4)
HO_{origin}	0.0475** (0.0223)	0.0642** (0.0250)	0.0613*** (0.0220)	0.0538*** (0.0193)
HO_{MSA}				-1.256 (1.699658)
male (dummy)	-0.00202 (0.00391)	-0.00249 (0.00421)	-0.00104 (0.00384)	-0.00418 (0.00327)
marital status	0.185**** (0.00412)	0.183**** (0.00444)	0.171**** (0.00407)	0.145**** (0.00349)
age	0.0233**** (0.000631)	0.0234**** (0.000687)	0.0220**** (0.000623)	.01820**** (.000513)
age squared	-0.000145**** (0.00000593)	-0.000145**** (0.00000599)	-0.000137**** (0.00000584)	000112**** (0.00000491)
number of children	0.00255 (0.00197)	0.00240 (0.00212)	0.00308 (0.00194)	.00207 (0.00164)
interest income	-0.000000633 (0.000000323)	-0.000000277 (0.000000328)	-0.000000241 (0.000000311)	-0.000000266 (0.000000266)
rental income	0.00000260**** (0.000000682)	0.00000287**** (0.000000722)	0.00000257**** (0.000000689)	0.0000022**** (0.000000576)
employment status	\checkmark	\checkmark	\checkmark	\checkmark
education categories	\checkmark	\checkmark	\checkmark	\checkmark
income categories	\checkmark	\checkmark	\checkmark	\checkmark
race categories	\checkmark	\checkmark	\checkmark	\checkmark
metropolitan area per year (MSA \times Year)		\checkmark		
metropolitan central city per year (MCC×Year)			\checkmark	
metropolitan area				\checkmark
year (dummy)				\checkmark
$\frac{N}{\text{pseudo}}$	68666 0.228	64524 0.250	71118 0.210	68666 0.228

Marginal effects. * p<0.1, *** p<0.05, **** p<0.01, **** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is \in (0,1). Difference to baseline: In the first column, we exclude the metropolitan area and year dummies. In the second column, we exclude the separate year and metropolitan area dummies, instead we include a large set of 4339 year per metropolitan area dummies. In the third column, we exclude the separate year and metropolitan area dummies, instead we include a set of metropolitan central city status per year dummies. For households within metropolitan areas, metropolitan central city status specification a measure for housing affordability, HO_{MSA} , the homeownership rate at the metropolitan area, i.e. the fraction of household heads owning the dwelling they live in.

Table B7: Robustness Checks (12) - (15): Location of Residence

Dependent Variable: Homeownership status of 2^{nd} generation immigrant i						
	Parental income Proxy 1 (1)	Parental income Proxy 2 (2)	Parental income Proxy 3 (3)	Parental income Proxy 4 (4)		
HO_{origin}	0.0816**** (0.0236)	0.0755*** (0.0235)	0.0793**** (0.0238)	0.0663** (0.0280)		
male (dummy)	-0.00484 (0.00393)	-0.00493 (0.00393)	-0.00484 (0.00393)	-0.00948** (0.00414)		
marital status	0.173**** (0.00417)	0.173**** (0.00417)	0.173**** (0.00417)	0.174**** (0.00440)		
age	0.0216**** (0.000643)	0.0217**** (0.000643)	0.0217**** (0.000642)	0.0224**** (0.000672)		
age squared	-0.000133**** (0.000006)	-0.000134**** (0.000006)	-0.000134**** (0.000006)	-0.000140**** (0.000006)		
number of children	0.00297 (0.00199)	0.00289 (0.00199)	0.00276 (0.00198)	0.00425** (0.00213)		
avg. personal income (by year) of 1^{st} generation immigrant group	0.0248**** (0.00607)					
avg. household income (over sample period) of 1^{st} generation immigrant group		0.0289*** (0.00926)				
avg. household income (by year) of 1^{st} generation immigrant group			0.0223*** (0.00732)			
real GDP in the country-of-origin (PPPs, in mil. 2011US\$)				0.000105 (0.00250)		
interest income	\checkmark	\checkmark	\checkmark	\checkmark		
rental income	\checkmark	✓	√	✓		
employment status	\checkmark	✓	✓	✓		
education categories	\checkmark	\checkmark	✓	✓		
income categories	\checkmark	\checkmark	\checkmark	\checkmark		
race categories	\checkmark	\checkmark	\checkmark	\checkmark		
metropolitan area	✓	\checkmark	\checkmark	\checkmark		
year (dummy)	\checkmark	✓	✓	✓		
$\frac{N}{N}$ pseudo R^2	68589 0.228	68666 0.228	68577 0.228	60586 0.230		

Marginal effects. * p<0.1, *** p<0.05, **** p<0.01, **** p<0.01, **** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is \in (0, 1). Difference to baseline: In column 1, we add the yearly average personal income of the 1st generation immigrants group the parents of the 2nd generation immigrant i correspond to. In column 3, we add the yearly average household income of the 1st generation immigrants group the parents of the 2nd generation immigrant i correspond to. In column 4, we add real GDP per capita (PPP adjusted) prevailing in the country-of-origin (proxy for relative living standards/income across countries).

Table B8: Robustness Checks (16) - (19): Omitted Parental Income

Dependent Variable: Homeownership status of 2^{nd} generation immigrant i					
			Wage	All	
	(1)	(2)	(3)	(4)	
HO_{origin}	0.0663**	0.0739***	0.0555**	0.0695**	
	(0.0280)	(0.0255)	(0.0246)	(0.0303)	
male (dummy)	-0.00948**	-0.00944**	-0.00909**	-0.00903**	
, -,	(0.00414)	(0.00414)	(0.00415)	(0.00415)	
marital status	0.174****	0.174****	0.173****	0.174****	
	(0.00440)	(0.00440)	(0.00441)	(0.00441)	
age	0.0224****	0.0223****	0.0224****	0.0224****	
age	(0.000672)	(0.000675)	(0.000675)	(0.000677)	
,	,	,	,	,	
age squared	-0.000140**** (0.00000626)	-0.000140**** (0.00000627)	-0.000141**** (0.00000628)	-0.000141**** (0.00000629)	
	(0.00000020)	(0.00000021)	(0.00000028)	· ·	
number of children	0.00425**	0.00434**	0.00443**	0.00455**	
	(0.00213)	(0.00213)	(0.00214)	(0.00214)	
real GDP (PPP)	0.000105			0.000480	
(in country-of-origin)	(0.00250)			(0.00252)	
average years of schooling		0.00113		0.00178	
(in country-of-origin)		(0.00113)		(0.00173 (0.00124)	
		,	0.000=		
average wage of employees			-0.0667	-0.0827*	
(in country-of-origin)			(0.0453)	(0.0465)	
interest income	\checkmark	\checkmark	\checkmark	\checkmark	
rental income	\checkmark	\checkmark	\checkmark	\checkmark	
employment status	✓	\checkmark	\checkmark	\checkmark	
education categories	\checkmark	\checkmark	\checkmark	\checkmark	
income categories	\checkmark	\checkmark	\checkmark	\checkmark	
rago antogorica	/	✓	/	✓	
race categories	v	V	V	v	
metropolitan area	\checkmark	\checkmark	\checkmark	\checkmark	
year (dummy)	✓	✓	✓	✓	
N	60586	60586	60227	60227	
pseudo R^2	0.230	0.230	0.230	0.230	

Marginal effects. * p<0.1, *** p<0.05, **** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. HO_{origin} denotes the aggregate homeownership rate in the country-of-origin in 2011 and is \in (0,1). Difference to baseline: We include additional covariates at the country-of-origin level. In column 1, we add real GDP per capita (PPPs, in mil. 2011US\$) prevailing in the country-of-origin. In column 2, we add average years of schooling. In column 3, we add the share of labor income in GDP, the average wage of employees. In column 4, we add real GDP per capita (PPP adjusted), average years of schooling, and the average wage of employees.

Table B9: Robustness Checks (20) - (23): Covariates at Country-of-Origin Level

Dependent Variable:		o status of 2^{nd} generation immigrant i
	(1)	(2)
HO_{origin}	0.0614***	0.0813***
	(0.0235)	(0.0252)
male (dummy)		-0.00486
		(0.00410)
marital status		0.172****
		(0.00434)
age		0.0215****
		(0.000663)
age squared		-0.000131****
0.41		(0.00000623)
number of children		0.00135
		(0.00205)
interest income		-0.000000452
		(0.00000325)
rental income		0.00000262****
		(0.000000732)
employment status		\checkmark
		/
education categories		v
income categories		\checkmark
race categories		\checkmark
metropolitan area	\checkmark	\checkmark
year (dummy)	✓	✓
\overline{N}	63612	63612
pseudo \mathbb{R}^2	0.044	0.228

Marginal effects. * p<0.1, ** p<0.05, *** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: $\label{thm:chool} \mbox{High School or less, college without degree, college +. The first category 'High School}$ or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the parents' country-of-origin in 2011 and is \in (0,1). Difference to baseline: We define a 2^{nd} generation immigrant as someone being born in the United States and whose parents, either father or mother are born abroad.

Table B10: RC 24: Different Definition of 2^{nd} generation immigrant

	Dependent Variable: Homeownership status of immigrant i						
			2nd generation			1st generation	
	all	all	single	$\mathrm{married} \neq$	married same	married same	
	(baseline)	(baseline)	background	background	background	background	
	(1)	(2)	(3)	(4)	(5)	(6)	
HO_{origin}	0.0646**	0.0646*	0.0921**	0.0316	0.314***	0.427**	
	(0.0300)	(0.0375)	(0.0449)	(0.0268)	(0.113)	(0.200)	
male	-0.00502	-0.00502	-0.0317****	0.00454	0.00116	0.00340	
	(0.00620)	(0.00494)	(0.00750)	(0.00402)	(0.00690)	(0.00900)	
marital status	0.173****	0.173****					
	(0.00570)	(0.0169)					
age	0.0219****	0.0219****	0.0221****	0.0178****	0.0234****	0.0289****	
0	(0.00106)	(0.00329)	(0.00495)	(0.00119)	(0.00313)	(0.00151)	
age squared	-0.000135****	-0.000135****	-0.000129***	-0.000124****	-0.000137****	-0.000147****	
	(0.0000103)	(0.0000312)	(0.0000444)	(0.0000114)	(0.0000342)	(0.0000200)	
number of children	0.00248	0.00248	-0.00651	0.00869**	0.0136**	0.0211****	
	(0.00354)	(0.00672)	(0.0154)	(0.00419)	(0.00634)	(0.00162)	
employment status	✓	✓	\checkmark	\checkmark	\checkmark	\checkmark	
education categories	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
income deciles	✓	\checkmark	✓	✓	\checkmark	\checkmark	
saving proxies	✓	\checkmark	✓	✓	\checkmark	\checkmark	
race categories	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
metropolitan area	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
year (dummy)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
\overline{N}	68666	68666	35252	22958	8673	38843	
pseudo R^2	0.228	0.228	0.153	0.220	0.263	0.201	

Marginal effects. * p<0.1, *** p<0.05, *** p<0.01, **** p<0.001. Standard errors in parentheses. Dependent variable: Equal to one if 2^{nd} the generation immigrant is a homeowner, 0 otherwise. Marital status dummy: equal to one if married and living with partner. Number of race categories: 21. Number of income categories (income deciles) is 10. The first decile is the reference category. The education categories are: High School or less, college without degree, college +. The first category 'High School or less' is the reference category. The employment status categories are: unemployed, employed, not in labor force. 'Employed' is the reference category. Interest income (saving proxy 1): pre-tax income received from interest on saving accounts, certificates of deposit, money market funds, bonds, treasury notes, IRAs, and/or other investments which paid interest. Rental income (saving proxy 2): pre-tax income received from rent (after expenses), from charges to roomers or boarders, and from money paid by estates, trusts, and royalties. Number of metropolitan area categories: 415. HO_{origin} denotes the aggregate homeownership rate in the parents' country-of-origin in 2011 and is $\in (0,1)$ Difference to baseline: In column 1, we use clustered standard errors at the metropolitan area of the second-generation immigrant's residence. In column 2-6, we use clustered standard errors at the country-of-origin level of the second- or first-generation immigrant i. In the baseline specification we use robust Huber-White-sandwich standard errors, given that the number of clusters is too small.

Table B11: Robustness Check (25): Clustered Standard Errors

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