Immigrants, Trust and Social Traps

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January 2016

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Abstract

The paper estimates a social interactions model to study the impact of culture on US immigrants' decisions. Findings vary by group of immigrants and by type of social interactions and they are robust to both additional checks and sensitivity analysis. The paper contributes to the literature as follows. It first estimates a social interactions model that models both group formation and the formation of social interactions. Besides, since this is an observational learning model policy suggestions may be drawn to favor integration of immigrants. Finally, it provides a new empirical strategy to study the impact of both inherited and contemporaneous culture on individual decisions.

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"*Everybody blames the culture without taking responsibility*", J.L. Levine, American Musician

"*Trusting is good but not trusting is better*", Italian Proverb

"*In God we trust*", Statement on the American Bank Notes

1 Introduction

What are the factors that explain the sorting of immigrants in a region? And once they decide to live in a region who, amongst them, trusts others and what affects their behavioral decision? This paper analyzes the impact of both social interactions and inherited trust on decisions of immigrants living in the United States.

When individuals decide to move and migrate to a region of another country they should also decide whether to conform to the behavior of individuals living in the host region or to keep living in the new country maintaining the behavior they used to have in the country of origin. The decision of immigrants to integrate or to segregate themselves in the host country may have socioeconomic consequences. On the one hand, the ability of immigrants to integrate may have positive effects on economic behavior and performance (Constant and Zimmermann, 2008). On the other hand, after immigrants settle in a region they may stick to the behavior they used to have in their country of origin, form their behavioral decision based more on their interactions with other immigrants (cultural segregation) or adapt to the behavior of a whole society (cultural assimilation). This may generate social traps, which are the equivalent of poverty traps when dealing with social outcomes.

The present paper aims at linking the migration literature (Mincer, 1978; Dustmann, 1995, 1997, 2003; Kirdar, 2009; Gibson and McKenzie, 2011; Kennan and Walker, 2013), with both the cultural economics literature and the social interactions literature. In particular, we let US immigrants

coming from various areas of the world first choose a low-trust (L-type) or high-trust (H-type) US region (*location decision*) and then undertake a *behavioral decision* (whether to trust others) conditional to the location decision.

Existing studies on migration and trust behavior find that there are differences in inherited trust of immigrants and their forebears coming from countries with different trustworthiness levels and such differences may explain the causal impact of trust on economic growth (Algan and Cahuc, 2010); furthermore, Ljunge (2014) studies trust in children of immigrants coming from about 90 different countries. The analysis shows that there exists an intergenerational transmission in children, who show trust similar to that of their mothers; he also finds that immigrants are more likely to adapt to societies with low trustworthiness than to more trustworthy societies, confirming the findings of the previous literature according to which depreciation of social capital is easy, while it is more difficult to build it (Nunn and Wantchekon, 2011). Dinesen and Hooghe (2010) using the European Values Survey investigate whether there exists an acculturation of trust of non-Western immigrants migrating to a Western country: they find that acculturation takes place, especially in second-generation immigrants. Dinesen (2012*a*,*b*, 2013) and Röder and Muhlau (2011) are other examples concerning the analysis of trust in immigrants. Moschion and Tabasso (2014) investigate the impact of both inherited culture and the environment on trust of second-generation immigrants in the United States and Australia and find that both the host and home country explain differences in trust of immigrants. Following this literature, this study lets immigrants' location and behavioral decisions depend upon the difference in trustworthiness existing between the host region and the country of origin to check whether and the extent to which difference in trustworthiness is an important determinant of immigrants' decisions.

The paper also links the migration literature to the social interactions literature by allowing immigrants' decisions to depend upon different kinds

of social interactions. Indeed, there exist various studies in the social interactions literature assessing the importance of social ties and networks to explain the existence of segregation and social/poverty traps (Benabou, 1993, 1996; Durlauf, 1996; Brock and Durlauf, 2001a; Topa, 2001; Zanella, 2007). Drawing on this literature, the paper estimates a social interactions model that models both the sorting of individuals into regions and the formation of social interactions on trusting decisions. Besides, it investigates the impact of various network relations on trust of immigrants by allowing different specifications of the social interactions term. This estimation framework is appealing because the parameter that measures the strength of social interactions and its interplay with private utility may provide suggestions about the possible presence of multiple equilibria and poverty/social traps (e.g. Brock and Durlauf, 2001b, 2006). Also, the General Social Survey (GSS henceforth) data set used in the analysis, has information about immigrants living in the United States and their nationality. Thus, by studying sub-samples of immigrants the paper captures decision differences across immigrants coming from various areas of the world.

The paper innovates with respect to the previous literature as follows. First, it draws on the most recent advances of the social interactions literature in that immigrants' decisions are estimated by a sequential logit model. This permits to overcome the usual limits of the social interactions models, namely, the self-selection problem and the reflection problem (Manski, 1993; Zanella, 2007; Brock and Durlauf, 2006), through modeling. To the best of my knowledge, this is the first application of a social interactions model that models the formation of both social interactions and group membership. Thus, the paper is econometrically innovative because it paves the way for future empirical work on social interactions. Besides, this is an observational learning model (Manski, 2000), that is, a model where individuals are influenced by other individuals' beliefs and not by preferences. Thus, the empirical analysis may be useful to provide suggestions for policy-makers because changes in expectations about other individuals'

behavior could be induced and this could conduct a society out of a social trap and favor integration of immigrants. Finally, the study is economically innovative because it suggests a new empirical strategy to investigate the impact of both the historical component of culture (i.e. via the difference in levels of trustworthiness between the host region and the home country) an its contemporaneous component (i.e. the social interactions term) on immigrants' *location* and *behavioral decision* to trust others.

Results suggest that both inherited trust and social interactions are relevant to explain immigrants' decisions. The social interactions terms vary both among sub-samples of immigrants and type of social interactions. Also, especially for sub-sample of immigrants coming from less trustworthy areas, the findings support the existing literature according to which social capital is easy to depreciate, but difficult to build (Nunn and Wantchekon, 2011; Ljunge, 2014).

The paper is structured as follows. Section 2 reports the framework and the data. Section 3 provides descriptive statistics and the estimation results on the whole sample. Section 4 reports the simulations results obtained using the sub-samples of immigrants. In section 5 a sensitivity and robustness checks are provided; section 6 concludes.

2 Data and Empirical Framework

2.1 Data

The data come from both the WVS data set[1] and the GSS data set. Trust of immigrants is obtained from the GSS data set. The variable used is the following: "*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*" I derive

[1]The former version (2007) of the WVS data set has been used to obtain country average trustworthiness measures because it is more complete than the latter version (2014). This last version, the European Values Survey or interpolation have been used to integrate the 2007 version of the WVS when needed.

a dummy variable that takes value 1 if the immigrant answers that most people can be trusted, 0 otherwise. By averaging this indicator for all the individuals living in each region in each year of the GSS, I construct the yearly average trustworthiness for each region, which is used in the analysis as global interactions term catching the impact of global social interactions on immigrants' decisions. The second type of social interactions term used in the analysis is the yearly average trust by immigrants living in the same region and the third social interactions term is the yearly average trust by immigrants coming from the same geographic area.[2] These last two terms have been constructed by averaging the indicator by, respectively, immigrants and immigrants coming from the same region of the world living in a same region.

Also, to get the difference in trustworthiness between the host region and home country, the same question for trust in the WVS is used. This allows to get the country of origin average trustworthiness. Since the wording of the WVS is exactly the same as for the trust question in the GSS, we may assume that the two sets of averages can be compared. Then, such average values are subtracted by the yearly average values of the respective host regions for each group of immigrants. This allows to obtain the difference in trustworthiness between host region an home country.[3] To decide which region is considered as an L-type or an H-type region, the yearly average trust across all the individuals living in a region is used: for each year the overall average trust is computed and a region is considered to be an L-type or an H-type region depending on whether the average trust of a region is

[2]Social interactions are defined global when individuals assign the same weight to the other individuals of the group and they form their expectations on a large enough group that they cannot assume to know and interact with every individual in the group (Brock and Durlauf, 2001a). Thus, all our social interactions terms are likely to be global rather than local, although the interactions with immigrants coming from the same geographical area living in the host region may be assumed partly local due to strong ties that may link such immigrants.

[3]Although the question is about trust, we assume that average trust can be considered a measure for trustworthiness in a region, as assumed by the existing literature (e.g. Guiso, Sapienza and Zingales, 2012).

respectively lower or higher than the average trust in a given year. I reckon that this is endogenously determined and may vary over time, but it is exogenous for the location decision of immigrants who decide only after the classification of a given region as L-type or H-type has occurred.

The construction of this variable limits the time framework of the analysis to the years available from the WVS: only the intermediate waves are used, excluding the first one for lack of data and the last one because the data was not available for all the countries of the sample. Thus, the GSS sample refers to the years 1989-2012.

Finally, since the aim of the analysis is to investigate immigrants' behavior, after the computation of regional averages for trust, non-immigrants have been dropped. After excluding information on immigrants that did not indicate a specific country, the following countries, representing immigrants coming from the economies worldwide, are left: Africa, Austria, Belgium, Canada, China, Czechoslovakia, Denmark, the United Kingdom, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Mexico, Netherlands, Norway, Philippines, Poland, Puerto Rico (dropped because not available in the WVS), Russia, Spain, Sweden, Switzerland, India, Portugal, Lithuania, Yugoslavia, Romania and Americas. Given the small number of immigrants per each country, in the analysis immigrants are grouped according to macro-areas of origin (namely, Africa, Northern Europe, Southern Europe, Eastern Europe, Asia and Americas) to run the sub-sample analysis. At the end of the sample restrictions imposed, the data set that can be used for the regression analysis is composed of 2,067 immigrants. The list of variables, their source and definitions are reported in Appendix I (Table A1).

2.2 Empirical Framework

The analysis is based on a model, described in Appendix II. Immigrants choose a group/region (*location decision*) of the United States $g \in (L, H)$,

which can be categorized as L-type or H-type region, where $L < H$ and L and H respectively stand for low and high. Once they have chosen where to migrate they make a *behavioral decision* by choosing a certain behavior $\omega \in (L_{i\omega|g}, H_{i\omega|g})$.

The model is similar to the one in Brock and Durlauf (2006) and Zanella (2007). As in their framework, the use of a nonlinear model and the two-stages model allow to overcome the typical problems of the social interactions models, namely, the reflection problem and the self-selection problem (Manski, 1993, 2000; Blume and Durlauf, 2006). However, it differs from their analysis in that I estimate a sequential logit model rather than a nested logit model because it is more suitable to this framework (see Appendix II for details).

The estimation strategy is as follows:

$$Pr_{ig=H} = \Lambda\left(\beta_{10} + \beta_{11}X_i + \beta_{12}Y_{ig} + \beta_{13}dtr_{igr} + J_1 m^e_{ig} + \beta_{14}u_1 > 0\right) \tag{1}$$

$$Pr_{i\omega|g=H} = \Lambda\left(\beta_{20} + \beta_{21}X_i + \beta_{22}Y_{ig} + \beta_{23}dtr_{igr} + J_2 m^e_{ig} + \beta_{24}u_2 > 0|g = H\right) \tag{2}$$

$$Pr_{i\omega|g=L} = \Lambda\left(\beta_{30} + \beta_{31}X_i + \beta_{32}Y_{ig} + \beta_{33}dtr_{igr} + J_3 m^e_{ig} + \beta_{34}u_3 > 0|g = L\right) \tag{3}$$

where Equation (1) indicates that individuals sort into either an H-type region or an L-type region, and equations (2) and (3) indicate the behavioral decision undertaken by the immigrant sorting into respectively a H-type or a L-type region. Both the location (g) and the behavioral (ω) decision are a function of other variables that can be grouped as individual-specific characteristics, X_i (i.e. immigrants' age and its squared, education dummies capturing whether the immigrant has less than 12 years of education or more than 16 years of education, a dummy variable for married and single, a dummy that catches if the immigrant is a full-time or a part-time worker, and dummies for religion and race), group-specific characteristics, or con-

textual effects, Y_{ig} (i.e. the average levels of education in the host region), contemporaneous culture, m^e_{ig} (i.e. the yearly average level of trust of individuals belonging to the reference group the immigrants make expectations about: individuals living in the host region or immigrants living in the host region or immigrants living in the host region coming from the immigrant's geographic area), an error term and the term capturing the difference in trustworthiness between the host region and home country, dtr_{igr}, which is ethnic-specific (r). By adding this term the paper follows the social capital literature (Durlauf, 2002; Durlauf and Fafchamps, 2005).[4]

As conventional in social interactions models, self-consistency is assumed to close the model; this implies that the immigrants' expectations coincide with the objective probability of the model, ($m^e_{ig} = m_{ig}$).[5] Also, J_g, measures the strength of social interactions and determines, jointly with both the private and the random utility, the presence of multiple equilibria and social traps arising from different herding behaviors of immigrants. Thus, the presence of a sizeable J is a necessary condition for the existence of multiple equilibria. Finally, u_d ($d = 1, 2, 3$) indicates the error term for each equation. Following the literature (Train, 2003; Buis, 2011) in the estima-

[4]To avoid reverse causality and endogeneity problems, we assume that the difference in trustworthiness is an objective indicator predetermined with respect to the location decision taken by the immigrant. However, we also instrumented the difference in trustworthiness using as instruments the weighted genetic distance between the United States and each ethnicity used by Spolaore and Wacziarg (2009) as well as the yearly family income of the respondent when (s)he was 16 years old, averaged by ethnicity, obtained from the GSS. Since the weighted genetic distance has an effect on economic development (Spolaore and Wacziarg, 2009), we may assume that the weighted genetic distance is correlated with and can be used to instrument the difference in trustworthiness; at the same time we can assume it is not correlated with the error terms of individual decisions. The same can be said for the other instrument. Then, a two-step procedure is applied: the sequential logit is run by adding the estimated residual from the regression as additional regressor (Heckman, 1979) and standard errors have been bootstrapped. The results do not significantly change.

[5]I empirically compute the social interactions terms as the average level of trust of the reference group. By doing this, I assume that, for the law of large numbers, the average computed on all the individuals and the average computed on all the individuals but the immigrant making expectations do not differ.

tion I control for endogeneity of the social interactions terms by means of the presence of unobserved heterogeneity correlated with it; I assume that it is normally distributed with standard deviation (σ) equal to 1. Since we can think at unobserved heterogeneity as a weighted sum of all the unobserved variables that are possibly correlated with the social interactions term, the distributional assumption is reasonable. Given the distributional assumption on unobserved heterogeneity, the models are estimated using simulated maximum likelihood due to the impossibility to get a close form solution (Train, 2003; Buis, 2011). Also, I assume, as baseline scenario, that the correlation (ρ) of unobserved heterogeneity with the variable of interest is 0.25. The correlation is intentionally chosen not too high because the unobserved variables may have either a positive or negative correlation with the variable of interest. Thus, assuming positive but not too high correlation seems a natural choice. A sensitivity analysis is provided in Table 12.

3 Estimation Results

3.1 Actual Data

In Table 1 trust averages of immigrants by country are reported. In this table the entire GSS sample (1972-2012) has been used to get more observations for each ethnicity. For each area and sub-population the average trust of immigrants sorting in either an L-type (left column) or in an H-type (right column) region is reported. The Wilcoxon-Mann-Withney test indicates that only for some countries average trust of immigrants in L and H-type regions differ. However, the Kruskal-Wallis tests show that we can reject the null hypothesis of equal means across both areas of the world and countries. Although not much can be inferred from the table due to data limitations and because we cannot compare trust of immigrants before and after migration, immigrants coming from the same place in L-type regions

have overall lower trust than immigrants from the same area in H-type regions. Also, overall, trust is higher for immigrants coming from trustworthy societies. This is a preliminary descriptive evidence that trust of immigrants may be influenced by both inherited trust and social interactions.

Table 1: Sorting of immigrants in US regions

	L-type regions	H-type regions		L-type regions	H-type regions
Country of origin	Average trust		Country of origin	Average Trust	
South America	0.088*	0.154*	Poland	0.231	0.424
Africa	0.219	0.250	Russia	0.474	0.486
North Europe	0.391**	0.489**	Lithuania	0.000	0.333
Austria	0.400	0.300	Ex-Yugoslavia	0.500	0.500
Denmark	0.333	0.400	Romania	0.300	0.143
UK	0.465	0.506	**Asia**	0.367	0.371
Finland	na	1.000	China	0.394	0.492
Germany	0.265**	0.453**	Japan	0.462	0.421
Ireland	0.464	0.375	Philippines	0.216	0.193
Netherlands	0.429	0.467	India	0.429	0.393
Norway	0.500	0.615	**North America**	0.310	0.238
Sweden	0.571	0.714	**South Europe**	0.267	0.340
Switzerland	1.000	na	Greece	0.300	0.400
Belgium	1.000	1.000	France	0.455	0.471
East Europe	0.351	0.432	Italy	0.259	0.366
Czechoslovakia	0.167	0.500	Spain	0.270	0.214
Hungary	0.625	0.429	Portugal	0.000*	0.300*
Kruskal-Wallis test (by area)	$\chi^2_6 = 72.708$	[0.000]	$\chi^{2+}_6 = 112.221$	[0.000]	
Kruskal-Wallis test (by country)	$\chi^2_{32} = 111.347$	[0.000]	$\chi^{2+}_{32} = 171.859$	[0.000]	

Notes: Averages by immigrants sorting in low or high trust regions are reported. Low and high trust regions are defined with respect to the yearly average level of trust. Every pair of averages for immigrants sorting in low and high trusting regions has been tested to check for significant differences using a two-sample Wilcoxon ranksum Mann-Whitney test. + indicates the Kruskal-Wallis (KW) statistics corrected for ties, p-values for the KW statistics are in []. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey, years 1972-2012.

To check this further, a sequential logit model is estimated. From now onward the time span of the analysis is restricted to the years 1989-2012.

The estimation results on the whole sample always include a time dummy for the years before and after 2000; this time dummy is not included in the sub-sample analysis because due to data limitations it was impossible to get results for some of the groups of immigrants. Thus, for sake of comparison it has been excluded from all the sub-sample regressions. This does not affect the final results. The regression analysis is similar to the empirical framework in Alesina and La Ferrara (2002), who analyze who trusts others in the United States; however, this paper differs somehow from their analysis. Indeed, this work focuses only on immigrants; also, it does not account for the presence of past traumas and for the logarithm of the respondent income to avoid loss of data and representativeness. Regression results including the logarithm of income have been run, but it does not significantly influence the decisions of immigrants, so its omission does not alter the results. Finally, this paper controls for the social interactions term as well as for the difference in trustworthiness between the host region and home country to catch the impact of both inherited trust and contemporaneous culture on the decisions of immigrants. In all the regressions the marginal probabilities computed at the means for the location decision and the behavioral decision in L-type and H-type regions are reported respectively in Columns (1), (3) and (5); while columns (2), (4) and (6) report relative standard errors robust to the heteroskedasticity. Table A2 (in Appendix I) shows the results for the sequential logit model on actual data; instead, Table 2 shows the results on the whole sample using simulated data, that is, using a data set whose variables have the same distribution and moments of the actual variables. Regional and ethnic representativeness of immigrants is maintained, but the number of immigrants is increased to get consistent results and to allow sub-sample analysis. For sake of brevity only the results in Table 2 are commented because this is the whole sample that should be related to the sub-sample analysis of the following Tables and because these results are more consistent than the results in Table A2. Also, the behavioral decisions of immigrants in L-type and H-type regions

in sections 3.2. and 4 are commented together.

3.2 Simulations Results

Columns (1) and (2) of Table 2 report the results for the location decision of immigrants. Females are less likely to emigrate to an H-type region than men. Immigrants with lower education (i.e. less than 12 years) are more likely to migrate to an H-type region than immigrants with intermediate levels of education (the reference group). On average education levels are higher in H-type regions. Both married and single are more likely to sort themselves (compared to other marital status, i.e. divorced, widowed and separated) in an H-type region. Immigrants who work both full-time and part-time are less likely to sort themselves in a H-type region compared to the ones having other working statues (i.e. retired, student, housekeeper, -temporarily- unemployed). Blacks are less likely to join an H-type region than whites. Other races but blacks are more likely than whites to sort themselves in an H-type region. Immigrants with religion affiliations are less likely than immigrants with no religion to go living to an H-type region. On average from the 2000 onward immigrants are more likely to sort themselves in an H-type region. Immigrants coming from countries for which the difference between trustworthiness of host region and home country is higher are more likely to sort in H-type regions: this indicates that immigrants coming from countries with comparatively low trustworthiness tend to migrate to regions with high trustworthiness. Finally, in H-type regions the average trust is higher than in L-type regions.

The results for the behavioral decisions on trust of immigrants indicate that females trust less than men, less educated immigrants are less likely to trust than immigrants with intermediate levels of education, while immigrants with higher levels of education (16 years or more) trust significantly more: this is an expected result in line with previous work (e.g. Alesina and La Ferrara, 2002). Immigrants living in regions with higher

Table 2: Simulations Results: Whole Sample and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	-0.00	(0.001)	0.00***	(0.001)	0.01***	(0.001)
age2	0.00	(0.000)	-0.00	(0.000)	-0.00***	(0.000)
female	-0.12***	(0.008)	-0.06***	(0.006)	-0.06***	(0.005)
edu<12	0.04***	(0.009)	-0.13***	(0.008)	-0.16***	(0.007)
edu>16	-0.00	(0.010)	0.25***	(0.007)	0.24***	(0.007)
educavg	0.74***	(0.017)	-0.09***	(0.009)	-0.05***	(0.006)
married	0.08***	(0.010)	0.03***	(0.007)	0.04***	(0.006)
single	0.13***	(0.012)	-0.03***	(0.009)	-0.06***	(0.007)
ft	-0.12***	(0.008)	0.06***	(0.006)	0.00	(0.005)
pt	-0.07***	(0.012)	0.04***	(0.010)	0.05***	(0.008)
Black	-0.05***	(0.017)	-0.09***	(0.012)	-0.07***	(0.011)
Other race	0.23***	(0.008)	-0.09***	(0.006)	-0.05***	(0.005)
Protestant	-0.13***	(0.013)	-0.10***	(0.009)	0.01	(0.007)
Catholic	-0.12***	(0.012)	-0.23***	(0.009)	-0.14***	(0.007)
Jews	-0.43***	(0.032)	-0.07***	(0.018)	0.05***	(0.016)
Other religion	-0.22***	(0.016)	-0.03***	(0.011)	0.04***	(0.009)
2000	1.57***	(0.028)	0.16***	(0.008)	-0.07***	(0.006)
dtr	0.46***	(0.028)	-0.88***	(0.027)	-0.61***	(0.019)
trustavg	42.99***	(0.715)	1.92***	(0.093)	0.51***	(0.059)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			84,841			
log-pseudol			-51,370.67			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.
Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

levels of education are less likely to trust than immigrants living in regions with lower levels of education. Married immigrants trust significantly more than the reference group (i.e. divorced, separated or widowed), single ones trust significantly less. In L-type regions full-time workers are more likely

to trust than the reference group and part-time workers trust significantly more than the reference group in both regions. Blacks and other races are less likely to trust others than whites. Religious immigrants trust less than immigrants with no religion affiliation in L-type regions; Jews and immigrants with other religions (Catholics) are more (less) likely to trust others than immigrants with no religion in H-type regions. Since 2000 immigrants sorting in H-type (L-type) regions are less (more) likely to trust than immigrants that joined H-type(L-type) regions before then. Immigrants for which the difference between regional (i.e. host) and home trustworthiness is bigger are less likely to trust others everywhere. This underlines the skepticism of immigrants to conform to the new levels of trust if they come from a comparatively (to the host region) low trustworthy country. Finally, the higher the (expectation about) regional trust the higher the probability that the immigrant will decide to trust others. This is the social interactions term and its significance and size are important: immigrants are influenced by their expectations about the collective beliefs on trust of the region in which they sort themselves. Besides, the social interactions term is higher than unity in L-type regions.

Overall, the results show that immigrants coming from countries with comparatively (to the host region) lower trustworthiness are more likely to sort in an H-type region; furthermore, immigrants coming from less trustworthy countries are less likely to trust others, indicating that trust inherited from the home country influences trusting decisions in the host region. Also, immigrants from the 2000 onward preferred to sort themselves in H-type societies. The negative (positive) impact of the 2000 dummy on the behavioral decision of immigrants in H-type (L-type) regions may be interpreted as follows. In H-type regions, this result may catch the possible effect of negative shocks that have occurred after the starting of the new millennium (e.g. the 9/11 attack and the financial crisis) and that are likely to have had a negative impact on individual trust. Interestingly, this effect is opposite in L-type regions. This could be due, on the one hand, to the

effect of globalization and information spread that could have increased the probability for immigrants to trust others in the United States; on the other hand, the negative international and US shocks mentioned before may have affected more the trust of individuals in H-type regions than in L-type regions because for instance individuals living in L-type regions may invest less in the financial markets (see for instance Guiso, Sapienza and Zingales, 2004), so they have not been directly affected by the financial crisis, or because they are likely to live in regions of the United States far away from where the attack took place. Finally, the social interactions term is always significant, positive and high; this indicates that immigrants are overall influenced by the average trust of other individuals in a region, suggesting overall cultural assimilation.

4 Sub-sample Analysis

Given the well known differences in trust across the populations of the sample, it is worth performing a sub-sample analysis. Tables 3 to 8 report the same analysis on immigrant population sub-samples, which spreads light on differences in both sorting and trusting behavior of immigrants coming from different areas of the world.

In Table 3 the results for the African sub-sample are reported. The results for the location decision indicate that older African immigrants are more likely to sort in H-type regions and females are less likely to sort in H-type regions than males. Immigrants with either lower or higher education are more likely to sort in an H-type region than the reference group. Average education levels are higher in regions with high levels of trust. Singles are more likely to sort in an H-type region than married or the reference group. Full-time workers are less likely to migrate to an H-type region than part-time workers or the reference group. Blacks and other races are more likely than white Africans to sort in an H-type region. Protestants and Catholics are more likely to go living in an H-type region than the Africans with

Table 3: Simulations Results: Africans and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	0.02***	(0.004)	-0.01**	(0.003)	0.00***	(0.000)
age2	-0.00***	(0.000)	0.00***	(0.000)	-0.00***	(0.000)
female	-0.10***	(0.023)	-0.09***	(0.016)	-0.00*	(0.002)
edu<12	0.31***	(0.030)	-0.04	(0.022)	-0.01**	(0.004)
edu>16	0.07**	(0.028)	0.02	(0.022)	0.01**	(0.003)
educavg	0.83***	(0.057)	0.18***	(0.026)	-0.02***	(0.004)
married	-0.02	(0.030)	0.02	(0.020)	-0.01***	(0.004)
single	0.17***	(0.034)	-0.09***	(0.026)	-0.00	(0.003)
ft	-0.05*	(0.024)	-0.10***	(0.017)	-0.00	(0.002)
pt	0.04	(0.036)	-0.14***	(0.030)	-0.02***	(0.006)
Black	0.12***	(0.026)	0.08***	(0.019)	0.02***	(0.004)
Other race	0.24***	(0.030)	-0.05**	(0.020)	0.00	(0.003)
Protestant	0.15***	(0.037)	0.01	(0.023)	0.01**	(0.004)
Catholic	0.09**	(0.036)	-0.17***	(0.024)	0.01*	(0.004)
Jews	-0.12	(0.081)	-0.05	(0.049)	0.04**	(0.015)
Other religion	0.02	(0.042)	-0.09***	(0.029)	0.02***	(0.006)
dtr	-1.56***	(0.334)	-0.42	(0.305)	-0.49***	(0.091)
trustavg	16.32***	(0.681)	-0.14	(0.329)	0.85***	(0.142)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			5,017			
log-pseudol.			-2,964.61			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.
Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

no religion. The higher the difference in trustworthiness between the host region and the home country, the less likely that African immigrants sort in H-type regions. The average trust is higher in H-type regions than in L-type regions.

In columns (3) and (4) the results for the trust behavioral decision in

L-type regions are reported, while columns (5) and (6) report Africans' behavioral decision in H-type regions. Trust decreases (increases) with age in L-type (H-type) regions. Females are less likely to trust than males in both types of regions. In H-type regions African immigrants with lower education trust less than the reference group, the ones with higher education trust more, as expected. The higher (lower) the average level of education in L-type (H-type) regions, the more likely is they trust. Singles trust significantly less than the African immigrants belonging to the reference group in L-type region, while married trust significantly less than the reference group in H-type regions. Full-time workers trust less than the reference group in L-type regions and part-time workers trust significantly less than the reference group in both L-type and H-type regions. Black Africans are more likely to trust than white Africans in both L-type and H-type regions, while other races are significant less likely (in L-type regions). Catholics and immigrants with other religion in L-type (H-type) regions are less (more) likely to trust than immigrants with no religion. Jews are more likely to trust others than immigrants with no religion in H-type regions. The difference in trust and the social interactions term do not have a significant effect on trusting decision of immigrants living in L-type regions. In H-type regions the difference in trustworthiness negatively affects the probability to trust others. The average trust has a positive and significant influence on the probability to trust others.

In Table 4 the regression results for immigrants coming from Northern European countries are reported. They show that (columns (1) and (2)) older Northern European immigrants are slightly less likely to sort in H-type regions; females are less likely to sort themselves in a H-type region. Immigrants with low levels of education are more likely than the immigrants with intermediate levels to go to an H-type region; also, average education is higher in H-type regions. Married or single are more likely to go living in an H-type region than immigrants with another marital status. Northern European immigrants who work full-time are less likely to

Table 4: Simulations Results: Northern Europeans and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	-0.01***	(0.003)	0.02***	(0.002)	0.01***	(0.002)
age2	0.00***	(0.000)	-0.00***	(0.000)	-0.00***	(0.000)
female	-0.20***	(0.017)	-0.03**	(0.013)	-0.04***	(0.012)
edu<12	0.19***	(0.021)	-0.16***	(0.019)	-0.23***	(0.017)
edu>16	0.04	(0.024)	0.31***	(0.016)	0.35***	(0.017)
educavg	1.35***	(0.029)	-0.07***	(0.019)	-0.03**	(0.015)
married	0.08***	(0.022)	0.08***	(0.017)	0.10***	(0.015)
single	0.13***	(0.025)	0.03	(0.021)	-0.10***	(0.019)
ft	-0.12***	(0.018)	0.05***	(0.015)	-0.4***	(0.013)
pt	0.00	(0.032)	0.11***	(0.023)	0.05**	(0.020)
Black	-0.00	(0.037)	-0.32***	(0.031)	-0.14***	(0.030)
Other race	0.38***	(0.020)	-0.12***	(0.016)	-0.11***	(0.015)
Protestant	-0.13***	(0.027)	-0.28***	(0.021)	0.05***	(0.017)
Catholic	-0.03	(0.024)	-0.37***	(0.021)	-0.27***	(0.018)
Jews	-0.96***	(0.059)	-0.13***	(0.038)	-0.20***	(0.047)
Other religion	-0.14***	(0.032)	-0.28***	(0.026)	-0.01	(0.025)
dtr	0.41***	(0.086)	-0.82***	(0.075)	-0.46***	(0.050)
trustavg	28.69***	(0.498)	0.74***	(0.170)	1.00***	(0.148)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			19,165			
log-pseudol			-14,088.37			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

go to an H-type region than the reference group; those of ethnicity other than white and black are more likely to go to H-type regions. Northern Europeans Protestants, Jews and those belonging to other religions are less likely than Northern Europeans with no religion to sort themselves in an

H-type region. The difference in trustworthiness positively and significantly affects the sorting decision; furthermore, the average level of trust is higher in H-type regions.

Regarding the trusting decision, trust of immigrants from Northern European countries constantly increases with age, females are less likely to trust than males, less educated trust less, more educated trust more than those with intermediate levels of education. The lower the regional average level of education, the higher the probability to trust. Married trust significantly more than the reference group and in H-type regions singles trust less. Immigrants with a full-time work living in L-type (H-type) regions are more (less) likely to trust others, part-time workers are more likely to trust than the reference group everywhere. Northern Europeans that have an ethnic background other than white are less likely to trust than white Northern Europeans. Northern Europeans with religious affiliation are less likely to trust than Northern Europeans with no religious affiliation in L-type regions; Protestants in H-type regions are more likely to trust others than Northern Europeans with no religious affiliation, instead Catholic and Jews are less likely to trust others. In both types of regions, the higher the difference in trustworthiness between host region and home country, the less likely the immigrant will choose to trust (reluctance to adapt for the Northern European immigrants coming from regions/countries with comparative lower trustworthiness); also, the social interactions term is positive, large and significant. This may be due to the generally high-trust behavior and adaptability of these countries.

Thus, immigrants coming from Northern European countries are very influenced by both inherited and contemporaneous culture, and the impact of social interactions is positive, significant in both L-type and H-type regions.

Table 5 shows the results for the immigrants coming from the Southern European countries. Females are less likely to sort in an H-type region than males. Immigrants with high levels of education are less likely to sort in

Table 5: Simulations Results: Southern Europeans and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	0.00	(0.004)	0.01***	(0.003)	0.02***	(0.003)
age2	-0.00	(0.000)	-0.00***	(0.000)	-0.00***	(0.000)
female	-0.19***	(0.020)	-0.01	(0.014)	-0.18***	(0.019)
edu<12	0.01	(0.022)	-0.14***	(0.019)	-0.14***	(0.024)
edu>16	-0.11***	(0.030)	0.16***	(0.018)	0.34***	(0.028)
educavg	0.70***	(0.062)	0.06***	(0.018)	-0.45***	(0.023)
married	0.01	(0.025)	0.01	(0.016)	0.01	(0.023)
single	-0.01	(0.027)	-0.15***	(0.024)	-0.08***	(0.030)
ft	-0.04*	(0.022)	0.07***	(0.016)	0.05**	(0.021)
pt	-0.03	(0.040)	0.13***	(0.026)	0.00	(0.034)
Black	-0.14***	(0.050)	-0.24***	(0.035)	-0.15***	(0.049)
Other race	0.25***	(0.021)	-0.19***	(0.017)	0.00	(0.022)
Protestant	-0.29***	(0.034)	-0.13***	(0.025)	-0.06*	(0.032)
Catholic	-0.10***	(0.024)	-0.23***	(0.022)	-0.02	(0.028)
Jews	-1.06***	(0.092)	0.03	(0.038)	0.01	(0.071)
Other religion	-0.17***	(0.033)	-0.18***	(0.030)	0.12***	(0.042)
dtr	2.23***	(0.237)	-1.91***	(0.111)	0.18	(0.163)
trustavg	23.11***	(1.467)	2.06***	(0.211)	-1.51***	(0.304)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			11,013			
log-pseudol			-6,676.34			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

an H-type region than immigrants with intermediate levels of education. Average education levels are higher in H-type regions. Full-time workers are less likely to sort in H-type regions than the reference group. Southern Europeans with ethnic background other than white and black are more

likely to join an H-type region than whites, blacks are less likely. Religious immigrants are less likely to sort in H-type regions than Southern Europeans with no religious affiliation. The higher the difference in trustworthiness, the more likely they are to migrate to an H-type region. The average level of trust is higher in H-type regions.

As far as the behavioral decisions on trust are concerned, trust of immigrants from Southern European regions increases with age everywhere. Females trust significantly less than males in H-type regions. Immigrants with lower (higher) education are less (more) likely to trust than immigrants with intermediate education. The higher (lower) the average level of education the more (less) likely it is that immigrants in L-types (H-types) regions trust. Singles are less likely to trust than the reference group. Full-time workers trust significantly more than the reference group everywhere; part-time workers trust more in L-type regions. Blacks trust less than whites and immigrants with other races trust less than whites in L-type regions. Protestants, trust less than those with no religion; Catholics and immigrants with other religious affiliation trust also less than immigrants with no religion in L-type region, while immigrants with other religion trust more in H-type regions. The higher the difference in trustworthiness the less immigrants in L-type regions trust. Social interactions have a significant, positive (negative) and large effect on the behavioral decision in L-type (H-type) regions. The negative impact of the average trust in H-type regions could indicate that immigrants from Southern European countries, which are generally countries with low trustworthiness, could decide to trust less in regions where they experience too high generalized trust. Skepticism and the decision not to trust others may be the final result because they could end up trusting more when they notice that other individuals living in the host region have not too high levels of trust. This result is compatible with other findings in the literature according to which individuals can easily adapt to low levels of social capital, but they are less likely to conform to high levels of social capital because social capital is difficult to build (Nunn

and Wantchekon, 2011; Ljunge, 2014).

Regarding immigrants coming from Eastern European countries (Table 6), their decision to sort in an H-type region is significantly affected by a few variables. In particular, females are less likely to sort in an H-type

Table 6: Simulations Results: Eastern Europeans and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	-0.00	(0.000)	-0.01***	(0.003)	0.01***	(0.002)
age2	0.00	(0.000)	0.00***	(0.000)	-0.00***	(0.000)
female	-0.00*	(0.000)	-0.06***	(0.020)	-0.07***	(0.014)
edu<12	0.00*	(0.000)	-0.12***	(0.026)	-0.20***	(0.024)
edu>16	-0.00	(0.000)	0.27***	(0.028)	0.20***	(0.018)
educavg	0.01*	(0.004)	0.21***	(0.040)	0.05***	(0.014)
married	0.00	(0.000)	0.01	(0.023)	0.06***	(0.018)
single	0.00	(0.000)	0.01	(0.032)	-0.00	(0.022)
ft	0.00	(0.000)	0.03	(0.021)	-0.04***	(0.015)
pt	-0.00	(0.000)	0.00	(0.035)	0.05**	(0.021)
Black	-0.00*	(0.000)	-0.16***	(0.038)	-0.23***	(0.039)
Other race	0.00*	(0.001)	-0.21***	(0.025)	-0.07***	(0.015)
Protestant	-0.00	(0.000)	0.01	(0.038)	-0.04*	(0.022)
Catholic	0.00	(0.000)	0.07**	(0.036)	-0.13***	(0.020)
Jews	-0.00	(0.000)	0.20***	(0.054)	0.12***	(0.031)
Other religion	-0.00	(0.000)	0.19***	(0.040)	0.01	(0.025)
dtr	-0.00**	(0.002)	-1.21***	(0.201)	-0.65***	(0.143)
trustavg	0.15**	(0.076)	-0.29	(0.320)	1.29***	(0.160)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			7,509			
log-pseudol			-4,603.85			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

region than males, immigrants with lower levels of education are slightly more likely to sort in an H-type region than immigrants with intermediate levels; average education is higher in H-type regions. Blacks are less likely and other races are more likely to locate in an H-type region than whites. Furthermore, immigrants coming from a Eastern European country with a comparative larger difference in trustworthiness between the host region and home country are more likely to sort themselves in an L-type region. The average level of trust is higher in H-type regions.

Trust of Eastern European immigrants sorting in L-type (H-type) regions decreases (increases) with age; females are less likely to trust than men. Immigrants with lower (higher) education trust less (more) than immigrants with intermediate levels of education. The higher the average level of education the more they trust. Married immigrants trust more than the reference group in H-type regions. Immigrants working full-time (part-time) trust less (more) than the reference group in H-type regions. Both blacks and other races are less likely to trust than whites. Protestants are less likely to trust than immigrants with no religion in H-type regions, Catholics are more (less) likely to trust than the reference group in L-type (H-type) regions. Jews are more likely to trust than the reference group everywhere and immigrants belonging to other religions trust more than immigrants with no religion in L-type regions. The higher the difference in trustworthiness between host and home place the less likely they are to trust others in both types of regions. The social interactions term has no significant effect on the behavioral decision in L-type regions, but it has a positive influence on the probability to trust for immigrants in H-type regions.

Immigrants from Asia (results are shown in Table 7) are more likely to join an H-type region if they are younger. Females are less likely to sort in an H-type region than males. Asiatic immigrants with either low or high levels of education are more likely to sort in a H-type region than the ones with intermediate levels of education. Average education levels are higher

in H-type regions. Both married and single immigrants are more likely to sort in an H-type region than the reference group. Full-time workers are less likely, part-time workers are more likely, to move to an H-type region than the reference group. Asians with ethnic background other than white and black are more likely to sort in H-type regions than white Asians, blacks are less likely. Religious immigrants are less likely to sort in H-type regions than Asiatic immigrants with no religion. The higher the difference in trustworthiness the more likely they are to sort in H-type regions. The average level of trust is higher in H-type regions.

Asians sorting in an L-type (H-type) region are slightly less (more) likely to trust others if they are older; females in H-type regions are less likely to trust others than males. Asians with higher (lower) education levels trust significantly more (less) than immigrants with intermediate levels of education; furthermore, the lower (higher) the average level of education, the more (less) immigrants in L-type (H-type) regions are likely to trust others. Single trust significantly less than the reference group. Both full-time and part-time workers trust significantly more than the reference group. Black Asians are less likely to trust than white Asians, other races in L-type (H-type) regions are more (less) likely to trust than whites. Asians with a religion affiliation are less likely to trust than Asians with no religion in L-type regions; instead, in H-type regions Catholic (immigrants with other region) are less (more) likely to trust others than the reference group. The higher the difference in trustworthiness the less they are likely to trust others disregarding the type of region. The social interactions term has a significant, negative and sizeable effect on the behavioral decision. The results on the average trust for both behavioral decisions can be interpreted as the results for Southern European immigrants. As a matter of fact, Asiatic countries are endowed with relatively low trustworthiness compared to the US regions. Thus, they may become skeptical when they experience too high trust and may have counter-intuitive behaviors, such as not to trust others if they notice that the average trust of individuals

Table 7: Simulations Results: Asians and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	-0.01***	(0.001)	-0.00**	(0.002)	0.03***	(0.002)
age2	0.00***	(0.000)	0.00***	(0.000)	-0.00***	(0.000)
female	-0.08***	(0.007)	0.00	(0.013)	-0.11***	(0.012)
edu<12	0.04***	(0.007)	-0.05***	(0.016)	-0.30***	(0.019)
edu>16	0.06***	(0.008)	0.32***	(0.018)	0.24***	(0.015)
educavg	0.40***	(0.019)	-0.24***	(0.019)	0.05***	(0.014)
married	0.01**	(0.007)	0.00	(0.017)	-0.02	(0.016)
single	0.06***	(0.009)	-0.08***	(0.021)	-0.15***	(0.020)
ft	-0.03***	(0.006)	0.12***	(0.015)	0.06***	(0.014)
pt	0.02*	(0.011)	0.13***	(0.024)	0.11***	(0.019)
Black	-0.14***	(0.019)	-0.04*	(0.026)	-0.27***	(0.035)
Other race	0.07***	(0.007)	0.05***	(0.013)	-0.04***	(0.013)
Protestant	-0.08***	(0.011)	-0.11***	(0.022)	-0.02	(0.018)
Catholic	-0.06***	(0.009)	-0.18***	(0.021)	-0.17***	(0.017)
Jews	-0.17***	(0.031)	-0.40***	(0.051)	-0.01	(0.042)
Other religion	-0.09***	(0.012)	-0.06**	(0.024)	0.04**	(0.020)
dtr	0.22***	(0.024)	-0.28***	(0.037)	-0.74***	(0.036)
trustavg	9.88***	(0.458)	-1.22***	(0.141)	-1.34***	(0.169)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			17,798			
log-pseudol.			-13,394.86			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

living in a region is too high.

Finally, Table 8 reports the results for American immigrants. Unfortunately, Northern and Southern Americans had to be pulled together due to data limitation, so this limits the possibility to disentangle the behavior of these two types of immigrants; however, we control for a dummy variable

Table 8: Simulations Results: Americas and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	-0.00*	(0.000)	0.00	(0.001)	0.00***	(0.001)
age2	0.00	(0.000)	0.00	(0.000)	-0.00	(0.000)
female	-0.00*	(0.000)	-0.04***	(0.004)	-0.08***	(0.007)
edu<12	0.00	(0.000)	-0.03***	(0.005)	-0.07***	(0.009)
edu>16	-0.00**	(0.000)	0.05***	(0.005)	0.14***	(0.011)
educavg	0.00***	(0.000)	-0.05***	(0.006)	-0.08***	(0.011)
married	0.00*	(0.000)	0.03***	(0.005)	0.08***	(0.010)
single	0.00	(0.000)	0.03***	(0.006)	0.03***	(0.011)
ft	-0.00**	(0.000)	0.01	(0.004)	0.06***	(0.008)
pt	-0.00**	(0.000)	0.00	(0.006)	0.06***	(0.012)
Afro-A.	0.00	(0.000)	0.04***	(0.008)	-0.20***	(0.028)
Other race	0.00**	(0.000)	-0.01**	(0.004)	-0.03***	(0.007)
Protestant	-0.00**	(0.000)	-0.02**	(0.006)	-0.01	(0.010)
Catholic	-0.00**	(0.000)	-0.07***	(0.006)	-0.08***	(0.010)
Jews	-0.00	(0.000)	-0.03**	(0.014)	0.13***	(0.028)
Other rel.	-0.00**	(0.000)	0.04***	(0.007)	0.05***	(0.013)
South A.	-0.00***	(0.000)	-0.01	(0.010)	0.20***	(0.022)
dtr	0.01***	(0.003)	-0.27***	(0.039)	-1.28***	(0.100)
trustavg	0.02***	(0.006)	0.35***	(0.062)	0.80***	(0.063)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			24,339			
log-pseudol.			-9,434.04			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

for Southern Americans. The results show that American immigrants are influenced in their location decision mainly by the difference in trustworthiness, which positively affects the decision of the immigrants to sort in a H-type region, and by the region of provenience (Southern Americans are less likely to sort in an H-type region). There are other significant vari-

ables influencing the location decision, however, their impact is negligible so comments are not provided.

As far as the behavioral decision is concerned, female American immigrants are less likely to trust than males; immigrants with less (more) education are less (more) likely to trust than immigrants with intermediate education. The higher the regional level of education the less likely it is that they trust. Married and single trust significantly more than the reference group. Both full-time and part-time workers are more likely to trust others than the reference group in H-type regions. Other races trust less than whites and Afro-Americans in L-type (H-type) regions trust more (less) than whites. Protestants, Catholics and Jews are less likely to trust and immigrants with other religions are more likely to trust than those with no religion in L-type regions; Catholic (Jews and immigrants with other religion) are less (more) likely to trust others than immigrants with no religion in H-type regions. The higher the difference in trustworthiness the less they are likely to trust. Social interactions have a significant, positive and large effect on the behavioral decision in both types of region.

Thus, American immigrants coming from regions with comparative low trustworthiness are more likely to join an H-type region; both Americans sorting in L-type and H-type regions are less likely to trust if they come from a region with comparative lower trustworthiness and are influenced by the average trust of other individuals living in the region.

5 Alternative Measures of Social Interactions and Robustness Checks

5.1 Alternative Measures of Social Interactions

So far we have assumed that immigrants are influenced only by what they think is the average collective trust of all the individuals living in their

region. Nonetheless, it is often the case that immigrants interact with other immigrants and base their decision of whether to trust on collective beliefs of other immigrants rather than on overall regional collective beliefs. This is more realistic and possibly even more realistic is letting their behavioral decision depend upon what they think is the average collective belief of the immigrants living in their region coming from their same area of the world (e.g. it is likely that immigrants coming from Southern Europe are likely to be influenced by the average trust of other Southern European immigrants living in their region). We thus replicate the analysis of Tables 2-8 keeping as social interactions term either the yearly average collective belief of the immigrants living in the region (Table 9) or the yearly average collective belief of the immigrants coming from the same region of the world living in the region (Table 10), which can both represent the propensity of immigrants to cultural segregation. For the sake of exposition, I only report and comment the results for the difference in trustworthiness and the social interactions terms for the three transitions because they are the variables of greater interest.

Both Table 9 and 10 show that, disregarding the sample analyzed,[6] both the difference in trustworthiness and the average trust of immigrants have a significant impact on the location decision, indicating that when differences in trustworthiness are higher immigrants prefer to sort in H-type regions. Most of the social interactions terms are positive and this indicates that the average trust of immigrants (Table 9) and similar immigrants (Table 10) is higher in H-type regions; only for Eastern Europeans and Asiatic immigrants the negative sign of contemporaneous culture indicates that average trust of similar immigrants (Table 10) is lower in H-type regions.

As far as the location decisions are concerned, findings in Table 9 and 10 are similar. Overall (whole sample) immigrants are strongly, positively and

[6]This is true with the exception of Americans in Table 9 and Northern Europeans in Table 10 for which trust of (similar) immigrants does not significantly impact the location decision.

Table 9: Simulations: All samples and Immigrants Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
Whole Sample						
dtr	1.54***	(0.022)	-0.68***	(0.023)	-0.37***	(0.017)
trustimmig	0.29***	(0.018)	1.18***	(0.023)	0.69***	(0.014)
Africa						
dtr	9.88***	(0.280)	-0.82***	(0.113)	0.23***	(0.061)
trustimmig	0.88***	(0.066)	1.76***	(0.120)	0.30***	(0.037)
Northern Europe						
dtr	1.58***	(0.048)	-0.90***	(0.081)	-0.37***	(0.049)
trustimmig	0.14***	(0.030)	1.77***	(0.053)	1.54***	(0.046)
Southern Europe						
dtr	7.13***	(0.132)	-1.23***	(0.100)	0.21**	(0.098)
trustimmig	0.62***	(0.056)	1.24***	(0.065)	0.50***	(0.035)
Eastern Europe						
dtr	7.43***	(0.190)	-0.81***	(0.184)	0.58***	(0.091)
trustimmig	0.93***	(0.075)	0.33***	(0.119)	0.70***	(0.035)
Asia						
dtr	0.63***	(0.028)	-0.29***	(0.044)	-0.51***	(0.031)
trustimmig	0.12***	(0.035)	0.69***	(0.050)	0.45***	(0.044)
Americas						
dtr	8.72***	(0.135)	0.01	(0.032)	-0.93***	(0.087)
trustimmig	-0.05	(0.055)	0.22***	(0.015)	0.48***	(0.033)
$\sigma_{ud} = 1$; $\rho = 0.25$						

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.
Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

significantly influenced by the trust of other (similar) immigrants living in their region in both H-type and L-type regions. As in Table 2, also in this case the difference in trustworthiness has a negative impact on immigrants' trust.

With regards to the sub-sample analysis, African immigrants sorting in

either L-type or H-type regions are significantly and positively influenced by the trust of other (similar) immigrants living in the region. The impact of the social interactions term in L-type regions in Table 9 is high; instead, in Table 10 is much lower, indicating that while African immigrants are very strongly influenced by the average trust of other immigrants in L-type regions, the influence of other African immigrants on their trusting decision is positive and significant but not very high. Also, the difference in trustworthiness between the host region and the country of origin has a negative (positive) impact on the probability to trust others in L-type (H-type) regions when assuming that their trusting decision is influenced by other immigrants collective trust (Table 9). Thus, we can conclude that African immigrants in L-type regions are more willing to trust and conform to the average trust of immigrants rather than the average trust of all the individuals living in a region.

For Northern European immigrants the results in Tables 9, 10 and 4 are qualitatively similar and indicate that the lower the difference in trustworthiness the higher is the probability to trust others, and that immigrants coming from Northern European countries are significantly, strongly and positively affected by the average trust of (similar) immigrants in the host region.

Immigrants coming from Southern European countries in Table 9 sorting in L-type regions are more likely to trust others if they come from a country with smaller difference in trustworthiness with the host US region, as it was in Table 5; the opposite is true for immigrants in H-type regions. The result for H-type regions is confirmed when we assume they are influenced by other Southern European immigrants (Table 10). In both Tables they are likely to be significantly and positively influenced by the average trust of other immigrants in the region. It should be noticed that, compared with Table 5, both social interactions terms in Tables 9 and 10 have a positive and significant influence on the behavioral decision, meaning that they (especially immigrants in H-type regions) are more positively influenced by

other (similar) immigrants rather than by the whole population.

Table 10: Simulations: All samples and Similar Immigrants Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
Whole Sample						
dtr	1.63***	(0.022)	-0.27***	(0.025)	-0.17***	(0.014)
trustworld	0.07***	(0.009)	1.20***	(0.017)	0.76***	(0.011)
Africa						
dtr	10.72***	(0.282)	-0.01	(0.024)	-0.05	(0.085)
trustworld	0.30***	(0.034)	0.15***	(0.029)	0.31***	(0.085)
Northern Europe						
dtr	1.60***	(0.048)	-1.38***	(0.092)	-0.46***	(0.053)
trustworld	-0.03	(0.017)	1.77***	(0.038)	1.37***	(0.031)
Southern Europe						
dtr	7.78***	(0.151)	0.04	(0.143)	0.35***	(0.063)
trustworld	0.31***	(0.032)	1.13***	(0.046)	0.84***	(0.053)
Eastern Europe						
dtr	7.27***	(0.187)	-0.99***	(0.125)	-2.82***	(0.332)
trustworld	-0.25***	(0.029)	1.44***	(0.098)	1.65***	(0.117)
Asia						
dtr	0.61***	(0.027)	-0.61***	(0.056)	-0.57***	(0.038)
trustworld	-0.05***	(0.019)	1.71***	(0.045)	1.34***	(0.044)
Americas						
dtr	9.19***	(0.146)	0.33***	(0.064)	-0.22***	(0.055)
trustworld	0.57***	(0.024)	0.66***	(0.039)	0.52***	(0.034)
$\sigma_{ud} = 1$; $\rho = 0.25$						

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.
Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

Eastern Europeans sorting in an L-type region are negatively influenced in both Table 9 and 10 in their behavior by the difference in trustworthiness between the host region and home country and they are positively and significantly affected in their decision by the average trust of other (similar)

immigrants living in their region. Eastern European immigrants in H-type regions are also positively and significantly influenced by other (similar) immigrants in the region; the difference in trustworthiness has a positive (negative) impact when they are influenced by other immigrants (similar immigrants). Comparing the results in Tables 6, 9 and 10 we may conclude that Eastern European immigrants are more willing (especially in L-type regions) to trust and conform to the average trust of immigrants rather than the average trust of all the individuals living in a region.

Trusting decisions of Asian immigrants are both positively and significantly influenced by (their expectations about) the average trust of other (similar) immigrants in a region and negatively influenced by the difference in trustworthiness between host and home place. Thus, comparing Tables 7, 9 and 10 we can conclude that Asiatic immigrants have counter-intuitive behavior when they base expectations on the average trust of individuals living in a region; on the contrary, they are more willing to conform to the average behavior of immigrants and even more so when the social interactions term is represented by other Asians living in their region. A similar behavior is undertaken by Southern Europeans.

Finally, the behavior of American immigrants in H-type regions is similar in Tables 8, 9 and 10: they are positively influenced by the average trust and negatively influenced by the difference in trustworthiness disregarding the type of social interactions. With regards to L-type regions, the impact of differences in trustworthiness is negative, positive and insignificant, respectively, in Table 8, 10 and 9. The social interactions terms are significant and positive everywhere.

5.2 Sample Representativeness

We now perform robustness checks. The first check (reported in Table 11) concerns the structure of the GSS data. It could be argued that the GSS data set became representative of the US population since 2006, when Span-

Table 11: Simulations: Robustness Checks (Whole Sample)-Representativeness

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
(2002-2012)						
dtr	0.00	(0.007)	-1.10***	(0.042)	-0.59***	(0.023)
trustavg	10.06***	(0.740)	2.53***	(0.167)	0.47***	(0.072)
(2002-2012)						
dtr	1.68***	(0.034)	-0.72***	(0.025)	-0.50***	(0.022)
trustimmig	-1.29***	(0.040)	0.79***	(0.033)	0.89***	(0.032)
(2006-2012)						
dtr	1.67***	(0.041)	-0.76***	(0.030)	-0.76***	(0.031)
trustimmig	-1.43***	(0.041)	0.69***	(0.038)	1.20***	(0.051)
$\sigma_{ud} = 1$; $\rho = 0.25$						

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.
Source: General Social Survey and World Values Survey, years 2002-2012 and author's calculations.

ish speakers also started to be interviewed and included in the sample. This could put into question the results obtained in the analysis. For this reason, we run the same analysis on the sample from 2006 to 2012 to check whether the social interactions terms maintain their significance. Unfortunately, the scarce variability of the regional indicators does not allow to obtain results for the regressions in which immigrants are influenced by the average trust of other individuals living in their region (first definition of the social interactions term). The regression using this definition is feasible only when we include the years from 2002 onward. Thus, we repeat the empirical analysis in Table 2 on the reduced sample (2002-2012). The regression on the representative sample (2006-2012), however, can be run when the social interactions term is the average trust of immigrants. Hence, we report the

results for both the reduced samples (2002-2012 and 2006-2012) using this definition. They show that the social interactions terms are still strongly significant so we may conclude that as far as the significance of the social interactions terms is concerned the whole sample is not significantly different from the *representative sample*. The significance and the importance of the social interactions terms are maintained, so we can conclude that the survey composition did not qualitatively alter the results.

5.3 Sensitivity Analysis

Finally, a sensitivity analysis is performed. The models estimated so far assume a positive and intermediate level (0.25) of correlation (ρ) between unobserved heterogeneity and the social interactions term and that unobserved heterogeneity has standard deviation (σ) equal to 1. To check whether the estimation results are biased due to the presence of unobserved heterogeneity we perform a sensitivity analysis. Indeed, the presence of unobservables may give rise to two phenomena, namely, the averaging mechanism and the selection mechanism, arising from the necessity to model a stylized discrete model.[7] We then estimate the models using different degrees of correlation between unobservables and the regressors (Buis, 2011), as well as assuming different standard deviations for the variable correlated with the social interactions term. If the estimation results were sensitive, then the presence of unobserved heterogeneity would be a problem and would alter the results,

[7]The averaging mechanism refers to the fact that estimating a model without modeling the presence of unobserved heterogeneity is problematic because in a non-linear model the impact of the regressors on the averaged probability differ from their impact on the probability (Cameron and Heckman, 1998; Allison, 1999) We then estimate the models using different degrees of correlation between unobservables and the regressor (Buis, 2011), as well as assuming different standard deviations for the variable correlated with the social interactions term. The selection mechanism, instead, refers to the possibility that a variable that is not problematic in the first transition can become a confounding variable from the second transition due to the self-selection process (Mare, 2000; Cameron and Heckman, 1998), since the decision modeled is the final outcome of a dynamic process influenced by factors that could enter the results but are omitted from the empirical model.

and in this case the sensitivity analysis could be useful for understanding which is the source of the problem. If the results were not sensitive to changing the scenarios then we could conclude that the presence of unobserved heterogeneity is not a problem, as indicated by previous studies (e.g. Cameron and Heckman, 1998), for our framework.

Table 12: Sensitivity Analysis: Whole Sample and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
$\sigma_{ud} = 0.5$	$\rho = 0.25$					
dtr	0.43***	(0.027)	-0.79***	(0.024)	-0.61***	(0.018)
trustavg	42.48***	(0.602)	1.74***	(0.081)	0.63***	(0.059)
$\sigma_{ud} = 0$	$\rho = 0.25$					
dtr	0.42***	(0.027)	-0.76***	(0.023)	-0.60***	(0.018)
trustavg	42.37***	(0.566)	1.90***	(0.078)	0.89***	(0.058)
$\sigma_{ud} = 1$	$\rho = 0.20$					
dtr	0.46***	(0.028)	-0.88***	(0.027)	-0.60***	(0.019)
trustavg	43.11***	(0.721)	2.08***	(0.094)	0.63***	(0.058)
$\sigma_{ud} = 1$	$\rho = 0.30$					
dtr	0.46***	(0.028)	-0.88***	(0.027)	-0.61***	(0.019)
trustavg	42.87***	(0.709)	1.76***	(0.091)	0.38***	(0.060)

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012 and author's calculations.

Then the model is re-estimated assuming alternative scenarios presented in Table 12. Thus, assuming that the unobserved heterogeneity would represent e.g. the transmission of cultural values from parents to children and the individual willingness to pay for public goods, estimating the model with 0.2 and 0.3 implies that we are considering both individuals and societies with low cultural endowment as well as individuals with high willingness to

pay and highly culturally endowed countries and regions. The results are not qualitatively sensitive to changing scenarios so we can conclude that the presence of unobserved heterogeneity is not a problem for the analysis. At this point it is important to remark that although by performing a sensitivity analysis findings suggest that it does not alter the results, the cross-sectional empirical framework analyzed here is somehow still subject to the critique by Cameron and Heckman (1998), according to which single decisions taken at a certain point (e.g. the location decision and the behavioral decision) are the outcome of previous experience: thus, although controlling for unobserved heterogeneity may take this into account, in this paper it is not possible to identify either all the historical reasons that drive immigrants' decisions (e.g. the influences of family ties and networks in their home country), or to check whether their behavioral decision is actually different from the behavior they used to take in their own country. This is beyond the scope of the present work, but it could be investigated using a panel of immigrants.

6 Conclusions

Using a sample of immigrants living in the Unites States, the paper addresses the importance of both inherited trust and social interactions to explain immigrants' decisions to trust others. By doing this, the paper provides a new empirical framework to study the relevance of social interactions in individual decisions.

The findings suggest that overall immigrants are very influenced by both their inherited trust and social interactions, showing that both historical component of culture (via differences in trustworthiness between host and home place) and the contemporaneous component of culture (i.e. social interactions) are important to explain individual behavior. The results vary by sub-sample of immigrants and sometimes they differ between the immigrants sorting in H-type and L-type regions, indicating that the impact

of social interactions may vary depending on both the ethnicity and the sorting decision.

Alternative measures of social interactions are used and results show that immigrants are likely to be influenced in a different way when their expectations are formed using different network ties. This is important because it suggests that different policies should be implemented, for instance, to promote integration and a more trusting behavior of different ethnic groups. The findings are robust to additional checks and to a sensitivity analysis.

Policies aimed at changing immigrants' expectations (via interventions on the social interactions term, components of X_i and/or Y_{ig}) may help a society to prevent segregation and to favor integration.

A Appendix I

Table A1 reports the list of variables, definitions and sources.

Table A1: List of Variables, Definitions and Source

Variables	Definition	Source
age	age of respondent (r henceforth)	GSS
age2	age of r squared	GSS
female	dummy variable taking value 1 if r is female, 0 otherwise	GSS
edu<12	dummy variable taking value 1 if r has less than 12	GSS
	years of schooling, 0 otherwise	GSS
edu>16	dummy variable taking value 1 if r has more than 16	GSS
	years of schooling, 0 otherwise	GSS
educavg	yearly regional average years of education	GSS
married	dummy variable taking value 1 if r is married, 0	GSS
	otherwise	
single	dummy variable taking value 1 if r is single, 0	GSS
	otherwise	
ft	dummy variable taking value 1 if r works full-time,	GSS
	0 otherwise	
pt	dummy variable taking value 1 if r works part-time,	GSS
	0 otherwise	
Black/	dummy variable taking value 1 if r is Black or	GSS
Afro-A.	Afro-American, 0 otherwise	
Other race	dummy variable taking value 1 if r's is other than	GSS
	Afro-A. or White, 0 otherwise	GSS
Protestant	dummy variable taking value 1 if r is Protestant, 0	GSS
	otherwise	
Catholic	dummy variable taking value 1 if r is Catholic, 0	GSS
	otherwise	
Jews	dummy variable taking value 1 if r is Jew, 0 otherwise	GSS
Other religion	dummy variable taking value 1 if r's religion	GSS
	is other than Protestantism Catholicism or Judaism,	
	0 otherwise	
2000	dummy variable taking value 1 for years 2000-2012,	GSS
	0 otherwise	
dtr	difference in trustworthiness between host region	GSS,
	and home country computed using the yearly average	WVS
	trust on both the host region and home country	
trustavg	yearly average trust of all the r living in a region	
trustimmig	yearly average trust of r immigrants living in a region	GSS
trustworld	yearly average trust of r immigrants living in a region	GSS
	coming from the same geographic area of the world	

Table A2 reports the estimation results on the whole sample using actual data.

Table A2: Regression Results: Actual Data and Global Social Interactions

	Location Decision		Behavioral Decision (L-type regions)		Behavioral Decision (H-type regions)	
	(1)	(2)	(3)	(4)	(5)	(6)
age	0.01	(0.013)	-0.00	(0.009)	0.00	(0.007)
age2	-0.00	(0.000)	0.00	(0.000)	-0.00	(0.000)
female	-0.15**	(0.072)	0.03	(0.046)	-0.05	(0.038)
edu<12	0.05	(0.068)	-0.13**	(0.056)	-0.14***	(0.051)
edu>16	0.05	(0.082)	0.22***	(0.058)	0.21***	(0.049)
educavg	1.01***	(0.186)	-0.05	(0.062)	-0.05	(0.045)
married	0.08	(0.080)	0.10*	(0.058)	0.04	(0.047)
single	0.13	(0.102)	0.13	(0.082)	-0.04	(0.065)
ft	-0.24***	(0.087)	0.12**	(0.057)	0.01	(0.046)
pt	-0.15	(0.104)	0.11	(0.079)	0.11*	(0.058)
Black	-0.10	(0.143)	-0.01	(0.096)	-0.04	(0.087)
other race	0.21***	(0.067)	-0.08*	(0.050)	-0.03	(0.039)
Protestant	-0.03	(0.102)	-0.08	(0.074)	0.03	(0.054)
Catholic	-0.17*	(0.098)	-0.15**	(0.074)	-0.07	(0.054)
Jews	-0.36	(0.266)	-0.17	(0.153)	0.02	(0.124)
other religion	-0.25**	(0.118)	-0.01	(0.083)	0.00	(0.064)
2000	1.53***	(0.183)	0.07	(0.056)	-0.03	(0.040)
difftrust	0.53*	(0.276)	-0.55***	(0.213)	-0.37***	(0.137)
trustavg	45.37***	(6.136)	0.96	(0.625)	0.58	(0.401)
$\sigma_{ud} = 1$; $\rho = 0.25$						
observations			1,307			
log-pseudol			-811.30			

Notes: Estimation Method: Sequential Logit. Columns (1), (3) and (5) report the marginal effects at the mean for respectively immigrants' location decision, their behavioral decision in L-type regions and their behavioral decision in H-type regions; columns (2), (4) and (6) report the standard errors (in parenthesis) for the respective choices. Standard errors are obtained using the Delta Method and are robust to heteroskedasticity. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

Source: General Social Survey and World Values Survey, years 1989-2012.

B Appendix II

Following the theoretical literature of social capital, social interactions and neighbourhood effects models (e.g. Brock and Durlauf, 2001a, 2002, 2006, 2007; Durlauf, 2002; Durlauf and Fafchamps, 2005) and its theoretical advances (e.g. Brock and Durlauf, 2006; Zanella, 2007), the work is grounded on a theoretical model of social interactions with endogenous group membership. Immigrants coming from various areas of the world choose which US region to join and a subsequent behavior, according to the following regression tree:

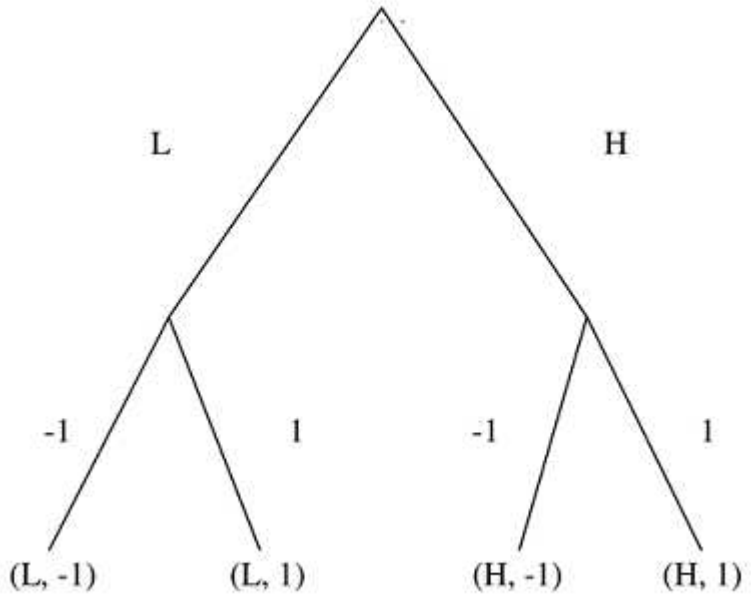

Figure 1: Individual Decision Tree

The first stage represents the location decision, where immigrants choose a group/region (*location decision*) of the United States $g \in (L, H)$, defined as L-type or H-type regions. The second stage decision is the *behavioral decision*, $\omega \in (L_{i\omega|g}, H_{i\omega|g})$, where immigrants, after joining a region, decide

whether to trust others.[8]

Immigrants, who are assumed to be rational, want to maximize their utility function, V, as follows:

$$\underset{g,\omega}{Max} V_i\left(g,\omega\right) \tag{1B}$$

and they do this by first maximizing the decision of the region they decide to join (g) and subsequently by maximizing their behavior conditional to the location they joined ($\omega_{i|g}$).

In each decision they choose outcome 1 only if:

$$V(1) - V(-1) > 0 \tag{2B}$$

that is, they decide to migrate for instance to an H-type region $\{1\}$ if the expected payoff they get from joining an H-type region is greater than the expected payoff they get from joining an L-type region {-1}; similarly, they decide to trust others if the payoff they get (conditional on their location decision) from trusting others $\{1\}$ is higher than the payoff they would get if they had to decide not to trust others {-1}.

Also, both the location and the behavioral decision are a function of private utility as well as social utility, so that the utility function can be modeled as follows:

$$V_i\left(g,\omega\right) = \nu\left(g,\omega,h_i\right) + s\left(g,\omega,m_{ig}^{e}\right) + u(u_{ig},u_{ig\omega}) \tag{3B}$$

[8]Although the trust question may capture actual *beliefs* it is common, in the cultural economics literature and when using survey questions, to assume that individuals are rational and behave according to their beliefs. Thus, we can assume that ω captures actual *behavior* of immigrants. Furthermore, although immigrants are born and come from economies worldwide, they have been interviewed while they were already living in the United States. So, it is reasonable to assume the absence of substantial differences in the interpretation of the trust question that could be otherwise addressed using alternative strategies (e.g. vignettes, see for instance King and Wand (2007)). However, possible further heterogeneity is accounted in the model by allowing for the presence of unobserved heterogeneity.

where $\nu(\cdot)$ indicates the deterministic private utility, $u(\cdot)$ indicates the random private utility and $s(\cdot)$ indicates social utility. Social interactions models (e.g. Brock and Durlauf, 2006; Zanella, 2007) assume that $h_i = c + \beta_1^{'} X_i + \beta_2^{'} Y_{ig}$, where c is a constant term, X_i represent individual-specific characteristics and Y_{ig} group/region-specific characteristics. $J_g m_{ig}^e$ represent the social interactions term (m_{ig}^e) and the parameter that measures its strength (J_g).

I use the "proportional spillovers" specification of social utility that implies that if an individual expects that most of the individuals in a group will choose $\omega = 1$, then the individual has an incentive to conform to the choice of the majority (see Brock and Durlauf, 2001b and Zanella, 2007 for details).

Finally, following Brock and Durlauf (2001b), I assume that in the model multiple equilbria may arise when $J > 1$ and h_i is homogeneous, and this is a baseline of interest.

This theoretical framework leads to the estimation of the sequential logit model defined in equations (1)-(3). Indeed, the maximization of the utility function is represented by the following optimizations:

$$g_i = \arg\max_g (h_i + J m_{ig}^e + u_{ig}) \tag{4B}$$

and

$$\omega_i = \arg\max_\omega (h_{i\omega} + J_g m_{i\omega g}^e + u_{i\omega g}) \tag{5B}$$

sequentially taken by the immigrants, which lead to the estimation of the following sequential logit structure:

$$p_{ig} = \frac{\exp(h_i + J m_{ig}^e)}{\exp(h_{iH} + J m_{iH}^e) + \exp(h_{iL} + J m_{iL}^e)} \tag{6B}$$

and

$$p_{i\omega|g} = \frac{\exp(h_i + J_g m^e_{i\omega g|g})}{\exp(h_{i\omega|H} + J_g m^e_{i\omega|H}) + \exp(h_{i\omega|L} + J_g m^e_{i\omega|L})}. \tag{7B}$$

Assuming that $h = \beta_0 + \beta_1^{'} X_i + \beta_2^{'} Y_{ig} + \beta_3^{'} dtr_{igr}$, equations (6B) and (7B) are the probability associated, respectively, to equations (1) and (2)-(3).

This framework is suitable for the research question investigated in this paper. Indeed, the location decision requires some degree of individual mobility; while US natives could have also moved across US regions during their life, the research question (the role of culture, both inherited and contemporaneous, on individual decisions) is more appropriate to study a sample of immigrants. Finally, I estimate the model using a sequential logit rather than the nested logit (suggested for instance in Zanella, 2007). Both the nested logit and the sequential logit can overcome the problems typical of social interactions models. Indeed, the reflection problem (Manski,1993), which refers to the impossibility, in linear-in-means models, to identify and estimate the parameters of the model due to the co-movement of the contextual effects and the social interactions term, is overcome using a nonlinear estimator (e.g. Brock and Durlauf, 2001b); the self-selection problem, which arises because the model belongs to the neighborhood models, where individuals endogenously choose their group membership, is solved, as suggested by (Blume and Durlauf, 2006), by modeling self-selection and taking into account the presence of endogenous sorting of individuals into groups.

However, given the framework, it is more realistic to estimate the model by means of a sequential logit rather than a nested logit model because we can assume that it is too costly for the immigrants to get full information at the first stage about the second stage maximization (see for instance Nagakura and Kobayashi, 2009).

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