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Spaniards in the wider World

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Abstract

This paper examines the relationship between the education level of Spanish emigrants and their country of destination. Since Spanish emigrants were born under the same laws, economic conditions, and institutions, the differences in their destination countries can be due to dissimilarities in their level of education. To explore this, we use census microdata covering the period from 2000 to 2007, of 21 countries that receive Spanish emigrants. Results suggest that more educated Spanish emigrants are more likely to live in more remote countries, with lower unemployment rates, and where the official language is English.

Keywords: Education, migration

JEL: I20; F22

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1. Introduction

In the 2013 Christmas period, almost all Spanish TV Channels broadcast an advertisement whose slogan was “Become foreigner”.¹ This simply reflected the situation of Spanish migration. During the last 6 years, the Spanish population living outside of Spain has increased by almost 50% (*Instituto Nacional de Estadística*, INE). By January of 2009, there were less than 1.5 million Spanish nationals living in other countries, whereas in January of 2015 there were around 2.2 million Spanish emigrants (Statistics obtained from the *Padrón de Españoles Residentes en el Extranjero* (PERE 2009 and 2015)).² Despite this increase, the pattern of distribution has not changed substantially, with around 60 to 65% of Spanish emigrants living in the Americas, 30-35% in Europe, and less than 5% in the rest of the world (PERE). The differences are quite remarkable at the country level: 423,006 Spanish nationals live in Argentina, 223,636 in France, 190,600 in Venezuela, 119,662 live in Cuba, 113,500 in the US, 91,316 in the UK, around 23,000 live in Colombia and Peru, and around 11,000 live in Bolivia and Portugal (PERE 2015). This is not simply a consequence of the latest migration process; from the early 20th century to the 1970s, there were several waves of emigrants to South America and Europe (Bover and Velilla 2005).³ This raises the question, why do Spanish emigrants settle in so many different countries?

As explained by Bauer et al. (2005), when analyzing the pattern of migration behaviour, it is not only the decision to emigrate that is relevant, so is the location choice. Several researchers have studied the mechanisms involved in the emigrant’s selection of location, including economic incentives (Eliasson et al. 2003; Nifo and Vecchione 2014), native language of the destination country (see Chiswick and Miller 2014 for a review), immigration policy barriers (Clark et al. 2007), past colonial relationships (Mayda 2010), institutions (Nifo and Vecchione 2014), physical distance (Sjaastad 1962) and cultural links (Belot and Ederveen 2012), among others. This work

¹ In Spanish, the slogan of the advertisement was “Hazte Extranjero”. The company was Campofrío.

² This sample includes individuals whose nationality is Spanish and who are registered in the embassies and consulates located in the countries where they are ordinarily resident. This information is only reported from 2009. See www.ine.es.

³ Note that this work does not examine another kind of geographical mobility that occurs in Spain, such as the inter-regional mobility of the Spanish (for this analysis see Juárez 2000), or the mass waves of immigration that occurred at the beginning of the 21st century in Spain (González and Ortega 2011).

explores whether there is a relationship between the country of destination and the education level of Spanish emigrants.

The existing literature examining the connection between education and migration generally finds that more educated individuals are more likely to emigrate, and that those individuals tend to locate in countries with high rewards to skill (Grogger and Hanson 2011). Other papers studying the educational selectivity of emigrants conclude that cultural similarities and the physical distance between countries have more relevance in the educational selectivity process than wages or immigration policies (Belot and Hatton 2012). There is also a growing literature that focuses on the analysis of the high-skilled migration from poor to rich countries, which, as researchers suggest, may impact the education incentives in developing countries (Beine et al. 2001, 2008; Docquier et al. 2007; Docquier and Rapoport 2004).

This paper extends prior research by using microdata from the Census of 21 destination countries of Spanish emigrants in the period 2000 to 2007. The data come from the Integrated Public Use Microdata Series-International (Minnesota Population Center 2014). The use of Census data is quite common in the literature, but the majority of papers consider the analysis at the aggregate level. The microdata from the Census does not contain information on why individuals decided to migrate, but it does provide valuable information on Spanish emigrants, which allows us to study the relationship between the education level of the emigrants and several characteristics of the destination country. These characteristics are: the language, the physical distance, and the unemployment level.

We first consider the language, since the economic literature has emphasized the role of the native language of the host country in the location choice. Researchers have found opposite results on the relationship between language and country of destination choice. Some conclude that language matters (Adsera and Pytlikova 2012; Beine et al. 2011; Belot and Hatton 2012; Belot and Ederveen 2012; Clark et al. 2007; Grogger and Hanson 2011; Pedersen et al. 2008), whereas others detect no relationship (Karemera et al. 2000; Mayda 2010; Ortega and Giovanni 2009). Language skills can be seen as a form of human capital, since they satisfy the following requirements: they are productive (knowing the language of your place of residence facilitates access to a job), they are costly to produce (time and money are needed to acquire language proficiency),

and they are embodied in the individual (language skills may not be separated from the person) (Chiswick and Miller, 2014). If it is assumed that the greater the human capital, the greater the gift for languages, it would be expected that those Spanish emigrants with greater educational level were more likely to settle in countries where Spanish is not the official language. However, those highly educated also have higher opportunity costs. Therefore, since learning a language can be costly, not only because of the direct costs of learning, but also because of the lower earnings received in the destination country during the adjustment period until acquiring proficiency, it can be argued that those highly-educated are more likely to settle in countries in which they already know the language. For example, in countries with the same language as the home country, or in those where they do not have to spend a lot of time to acquire proficiency, because the native language of the destination country is a second-language in the schools of their country of origin, or is a common language in business.

Our results suggest that more highly-educated Spanish emigrants are more likely to live in English-speaking countries, pointing to the importance of the ability to learn a language for those individuals. However, those more educated individuals are also more likely to settle in Spanish-speaking countries than in countries with other languages (excluding English speaking-countries). In this case, the opportunity cost argument can be a possible explanation. These findings are quite robust to the inclusion of several socio-demographic characteristics of Spanish emigrants and to the use of different subsamples. To provide even more convincing evidence that our conclusions are not limited to a specific period of time, this study, albeit with some concerns because of the availability of information, has also been run using Census data from 1960 to 2010. Results show no variation, suggesting that the education level plays a role in the destination country choice of Spanish emigrants.

The second characteristic of the destination country analysed in this work is physical distance. Separating the countries by continent, we examine the association between education level and this characteristic of the destination country. It would be expected that low-educated individuals, who normally have lower wage earnings than the more educated, would be less likely to move to distant areas because the travel costs between home and the destination country are higher, the greater the distance. Additionally, physical distance is important to the quality of information (job opportunities, income differentials...) about the destination (Sjaastad 1962). If those

high-educated individuals have greater access to information about possible destination countries, we would expect a less important impact of distance on high-educated individuals than on low-educated individuals. Proximity also facilitates illegal immigration, which may increase the migration of the low-educated the closer the destination country. The empirical results obtained in this paper appear to support these explanations. We find that, for highly-educated individuals, the physical distance between the home country and the host country is less significant than for low-educated emigrants, with countries located in the Americas being the most likely to settle in for more educated individuals.

One other characteristic studied here is the unemployment level of the country of destination. Migration can be a consequence of job-search (Herzog et al. 1993, Malamud and Wozniak 2012). Thus, the labour market situation of the destination country is a characteristic that emigrants, potentially, take into account when they decide to move to another country. If those who are highly-educated are more likely to access and understand the labour market situation of a potential destination country, it would be expected that they would choose countries with lower unemployment rates where they can find a job more easily. In addition, since the unemployment rate is a proxy of a country's business cycle situation, it would also be expected that those same individuals would locate in countries with low unemployment rates, where they can obtain high rewards to their skills. In this work, our empirical evidence shows that more highly-educated emigrants are less likely to live in countries with high unemployment rates, which appears to confirm our supposition.

Another novel contribution of this work is that the characteristics of the destination country are not only considered separately, we also explore different combinations of all of them, since the decisions taken by emigrants may be influenced by all those features simultaneously. The situation of a destination country is not limited to its native language, but also to its location and its economic situation. Results allow us to conclude that, with low unemployment rates, English and Spanish-speaking countries are the most likely to become the host countries for more educated individuals, regardless of their location. However, it is also observed that the greater the proximity, the less important is the economic situation, whereas the greater the distance the more central is the labour economic situation of the country for highly-educated individuals.

The remainder of the paper is organized as follows. Section 2 presents the empirical strategy, and Section 3 describes the data. Results are discussed in Section 4. Section 5 concludes.

2. Empirical Strategy

In order to study the relationship between the level of education of Spanish emigrants and several characteristics of their destination countries, the following equation forms the empirical framework of the analysis:

$$\ln \phi_{m|b} = \ln \frac{\Pr(y=m|\mathbf{x})}{\Pr(y=b|\mathbf{x})} = \mathbf{x}' \boldsymbol{\beta}_{m|b} \quad \text{for } m=1 \text{ to } J$$

A Multinomial Logit Model is used (MNL), which estimates a separate binary logit for each pair of outcome categories (Nerlove and Press 1973), where b is the base category and m varies from 1 to J , with J being the total number of outcome categories (see below for the definition of this variable). As $\ln \phi_{b|b} = \ln 1 = 0$, then $\boldsymbol{\beta}_{b|b} = 0$, meaning that the log odds of an outcome compared with itself is always 0 (Long and Freese 2006). \mathbf{x} is a vector that includes educational variables (“secondary completed” and “some college or more”, with the omitted variable being “primary completed or less than primary completed”), and other socio-demographic characteristics of the Spanish emigrants that may be related to the country of destination characteristics, for reasons unrelated to education, such as age, gender (whether the emigrant is a man), marital status (whether the emigrant is married), and employment status (whether the emigrant is employed). The J equations can be solved to compute the predicted probabilities (see Greene 2008):

$$\Pr(y = m|\mathbf{x}) = \frac{e^{\mathbf{x}' \boldsymbol{\beta}_{m|b}}}{\sum_{j=1}^J e^{\mathbf{x}' \boldsymbol{\beta}_{j|b}}}$$

There are other papers using methodologies very similar to ours that consider multinomial models to analyse migration choices (Huber and Nowotny 2013). In our case, we first consider as dependent variable the official or the most common spoken language of the destination countries. Languages are classified in the following

categories: English, Spanish, and Other.⁴ The language variable is nominal, since categories are unordered. Thus, in principle, the use of a multinomial model for this analysis would be appropriate. As explained above, it would be expected that more educated individuals, that is, those with greater human capital (Barro and Lee 2001), are more easily capable of living in non-Spanish-speaking countries. Nevertheless, because of the opportunity costs to acquire proficiency in a language, it would be expected that those more educated individuals choose to live in countries where they have already acquired that proficiency. Those countries would be Spanish-speaking countries and English-speaking countries. As Chiswick and Miller (2014) explain, Spanish is the first language in their country of origin and English is normally the second language in Spanish schools, in addition to being one of the most common languages in business.

This article also extends the analysis using as dependent variable other characteristics of the host countries that may influence the location choice of individuals, such as the physical distance between the home country and the country of destination, and the unemployment rate. The categories in the case of physical distance are: Europe, the Americas, and Others. For the unemployment rate, those are: Low unemployment (unemployment rate lower than 4%), Medium unemployment (unemployment rate between 4% and 9.9%) and High Unemployment (unemployment rate equal to or greater than 10%). As explained above, what is expected is that highly-educated individuals are more likely to choose more distant countries, since they have more information about potential destination countries. Besides, migration costs (travel costs) are more accessible for them, because they normally have larger salaries than less-educated individuals. With respect to the unemployment rate, it would be expected that more educated individuals settle in countries with lower unemployment rates where they can have greater skill rewards. This could be so since they have greater access to information on the economic situation of the destination country, and they are also more capable of understanding it.

These variables (distance and unemployment rate) can be considered as partly

⁴ It has been observed that those categories are indistinguishable by testing whether none of the independent variables significantly affect the odds of alternative m versus alternative n (Anderson 1984). Formally, we test:

$$H_0 : \beta_{1,m|n} = \dots = \beta_{i,m|n} = \dots = \beta_{I,m|n} = 0$$

with β_i being the coefficient associated with the explanatory variable x_i . Results show that we cannot reject the hypothesis that those categories are indistinguishable when using Wald tests and LR tests.

ordered, or even ordered. Then, we should use in our analysis an Ordinal Model (McElvey and Zavoina 1975). However, the parallel regression assumption, which is implicit in the Ordinal Model, is not satisfied in any of these cases. We computed the approximate likelihood-ratio test of proportionality of odds across response categories and found that the parallel regression assumption can be rejected at the 5% level of significance. In addition, it is possible to argue that these variables are not considered as ordered by emigrants, since they can represent unordered options. Because of vacation periods, the schedule, and perhaps even climate among others, emigrants may see one part of the world different from the other. Of course, this can be correlated with physical distance (close countries usually have more similar climates and even customs) but emigrants can observe it as unordered migration choices. In these cases, a researcher may prefer to treat outcomes as nominal (Marcén and Molina 2012). Additionally, since emigrants do not see a country by only one of these characteristics, combinations of all these variables (language, distance, and unemployment rate) cannot be considered ordered outcomes. Then, it is arguable that the models for nominal outcomes, and in particular the MNLM model, are suitable.⁵

As explained by Greene (2008), the coefficients in this kind of model are difficult to interpret. For that reason, results are shown in different ways. First, we present the average of the J discrete changes (or of the one standard deviation centred on the base values, for those variables that are not binary) across all outcome categories, for each explanatory variable $\bar{\Delta} = \frac{1}{J} \sum_{j=1}^J \left| \frac{\Delta \Pr(y=j|\bar{x})}{\Delta x_i} \right|$. We take the absolute value because the sum of the changes, without taking this absolute value, is necessarily zero (see Long and Freese 2006). This measure of the impact of the explanatory variables should be interpreted as follows: when the average of the absolute values of the discrete changes obtained for x_i is greater than that estimated for x_j , the impact of x_i on location choices is greater than that of x_j .

Then, we explore the dynamics among the outcomes by utilizing odds ratios. Odds

⁵ Note that we checked the validity of the MNL models in this setting by testing the property of independence of irrelevant alternatives (IIA). This property is convenient in MNL models, since if alternatives are not truly independent, then the estimates will be inconsistent (Hausman and Mcfadden 1984). Results suggest that the MNL model is appropriate, since we find evidence that the odds are independent of other alternatives by using two of the most common tests: Hausman's specification test (Hausman and Mcfadden 1998), and the Small-Hsiao test (Small and Hsiao 1985).

ratios are a more intuitive method of interpreting the results obtained (Long and Freese 2006). Formally, holding other variables constant, the changed factor in the odds of outcome m versus outcome n , as x_i increased by δ , equals:

$$\frac{\phi_{m|n}(\mathbf{x}, x_i + \delta)}{\phi_{m|n}(\mathbf{x}, x_i)} = e^{\beta_{i,m|n}\delta}$$

If $\delta = 1$, it can be interpreted as follows: for a unit change in x_i , the odds of m versus n are expected to change by a factor of $\exp(\beta_{i,m|n})$, holding all other variables constant. In contrast, when $\delta = s_{x_i}$, this can be understood as, for a standard deviation change in x_i , the odds of m versus n are expected to change by a factor of $\exp(\beta_{i,m|n} \times s_{x_i})$, holding all other variables constant. To simplify the odds analysis, odds-ratio plots have also been displayed (see Results Section). These plots reveal a great deal of information (for more details, see Long and Freese 2006). If one category of the dependent variable is to the right of another category, it indicates that an increase in the independent variable makes the outcome to the right more likely. In addition, the distance between each pair of categories indicates the magnitude of the effect, and when a line connects a pair of categories, there is a lack of statistical significance for this particular coefficient.

3. Data

To implement our analysis, we use data from the Integrated Public Use Microdata Series-International of the 2000-2007 Censuses (Minnesota Population Center 2014).⁶ This survey contains information of 238 Censuses of 74 countries from 1960 to 2010. Most of these Censuses, although not all, include a question on the birth-place of the individuals living in a country, in addition to other socio-economic characteristics. Our sample consists of emigrants from Spain who moved to 21 countries. The number of countries can be considered reduced, but those are all the countries containing information on the birth-place in the period considered.⁷ Individuals who are between

⁶ This period was chosen since during those years it is possible to get the greatest number of destination countries of Spanish emigrants.

⁷ Almost 70% of Spanish emigrants choose the countries considered in this work to settle in, representing the majority of their main destinations (PERE 2009 and 2015). There are three exceptions: the UK, Germany and

the ages of 25 and 59 are retained, since everyone in this sample is likely to have completed schooling, and is below the retirement age. Our final sample consists of 54,317 Spanish emigrants.

Table 1 shows summary statistics of the relevant variables by destination country. Our individuals are 45.34 years old on average, with those living in Argentina being older than other groups (52), and those in Ireland being the youngest (30). Almost 50% of our sample are men, although there are differences, with more men than women living in the countries of South and Central America. Most of the emigrants are married and employed. With respect to the education level of Spanish emigrants, Table 1 presents considerable variations, with less-educated individuals living in Argentina, Portugal, and the Philippines, whereas those more highly-educated are located in Colombia, Peru, and El Salvador. The differences in education may point to a potentially important role of education in the location choice of Spanish emigrants. We recognize that the large number of observations from the France Census can generate some concerns, since one may argue that they can be driving the results.⁸ We revisit this issue in the next section.

Table 2 presents the summary of the characteristics by destination country. The first column includes the official or the most common language in each host country, according to data from the US Central Intelligence Agency (CIA). 12 countries have Spanish as the official language, 3 have English, and the rest, 6 countries, have other languages (Portuguese, Greek, German, French, and Filipino). In our case, as mentioned above, we consider three categories (English, Spanish, and Others). In the literature, it is possible to find several classifications of languages when many home and destination countries are analysed (Chiswick and Miller 2014). However, in this work, we only

Switzerland. With respect to the UK, we repeat the analysis by including information on that country since this is available in 1991. Results do not vary (see below). Unfortunately, this cannot be re-run incorporating Germany and Switzerland because of the lack of information in the Census. Spanish emigrants who were born in Spain and live in Germany and Switzerland represent around 8% and 7% of the total Spanish emigrants respectively (PERE 2009 and 2015). Although this can be considered a limitation of this work, since we do not have information on all the destination countries, to examine whether any of the destination countries incorporated in our analysis is driving the results, we have re-estimated all the specifications by excluding each country, one at a time, and results are maintained. Also, we have repeated the analysis including information on the year of migration, and in this case, we are able to include and exclude those years of major waves of migrations to those omitted destination countries and results do not vary.

⁸ Note that all the estimates are obtained using weights from the Census. Results without weights do not change.

consider one home country, and relatively few host countries, where the number of languages is quite limited. For that reason, we favour the use of that simple classification.

This article also uses information on the unemployment rate as a proxy for the economic situation of the destination country. The data come from the World Data Bank. Table 2 only includes information on the unemployment rate of the year in which the Census was collected in each country. We do not detect a clear regional pattern, with the highest rates being for Argentina and South Africa and the lowest for Mexico, Cuba, and Austria. The analysis has been repeated using the average unemployment rate from 1990 to 2000, to overcome differences in the years in which the information is taken. Results are maintained. Finally, this paper also considers the physical distance between the home and the host country, separating the countries by continent, to study again the relationship between education level and the destination country. There are 5 countries from Europe, 14 from the Americas, and just 2 from other parts of the world. Although not included in this document, we have also used the physical distance measured in kilometres from the capital of the country of origin to the capital of the country of destination, as in Belot and Hatton (2012). Results do not vary.

4. Results

a. Destination countries classified by language

Table 3 reports the results of the main specification. For binary variables, the table presents the average of the absolute values of the discrete changes across all outcome categories. For the remaining variables, the table shows the average of the absolute change of one standard deviation, centred on the base values. These results allow us to compare the impact of each variable on the choice of a destination country, classifying the countries by official or most common language. The first column, incorporating controls for age and gender, suggests that education variables are important in location choices. The average of the absolute values of the discrete changes across outcome categories is around 25 percentage points in the case of the education variables. Note that this does not imply that the education level of Spanish emigrants is meaningful for the analysis of the dynamics among the outcome categories, since the average of the absolute values of the discrete changes provides no information about the dynamics among the choice of country of destination. In Column 2, more characteristics of the

emigrants are included. The inclusion of these variables (marital and employment status) slightly changes the magnitude of the average of the absolute discrete change for the education variables. Consistent with the migration literature, age, gender, marital status, and employment status of the emigrants are also relevant in destination country choices.

In order to study the dynamics among location choices, the MNLM reports a large number of coefficients, which makes it difficult to interpret the effects on all pairs of outcome categories. Table 4 shows factor changes in the odds of one outcome versus the others. The dependent variable is the official or the most common language, and the specifications incorporate all the controls (age, gender, marital status, and employment status). Column 1 reports the factor change in the odds of each outcome (English, Spanish, and Others) versus the others when Spanish emigrants report their education level (Secondary Completed, or Some College/University Completed). As can be seen, those with at least some college are more likely to settle in English-speaking countries, since the odds of living in an English-speaking country versus Others or versus Spanish-speaking countries are almost 12 and 3.7 times greater, respectively, holding the rest of the variables constant. This result may suggest that the capacity to learn a language is relevant to choosing place of residence. However, results also reveal that Spanish-speaking countries are more likely to be chosen than countries with other languages, by those with at least some college, since the factor change is less than one. Then, this may indicate that not only the capacity of those more educated is relevant, but also their opportunity costs. The same relationships are observed when controls for year dummies are added in column 2. Since not all the Censuses were collected in the same year, it is possible to argue that those differences are affecting our estimates. This could be important if, for example, in a specific year, there had been a massive migration to a country of destination because of some changes in the migration laws, or in the economic situation of both the home country and the potential host country. Year dummies are supposed to pick up the effect of those unobserved characteristics. Although the findings are maintained, the magnitude of the association between education and the country of destination decreases after the inclusion of year dummies. It should be noted that McFadden's Adjusted R-squared is quite high in column 2,

which may indicate some problems of collinearity after the incorporation of the year dummies.⁹

Another concern with these estimates is the inclusion of Spanish emigrants living in France. The number of observations is quite high in that Census. Of course, this should not be surprising since the main destination of Spanish emigrants is France, for almost 18% of the individuals born in Spain and living in other countries (PERE 2009). To tackle that problem, we use weights to obtain a representative sample of the Spanish emigrants in each destination country. Additionally, we repeat the analysis without the Spanish emigrants in France, columns 3 and 4 (with year dummies). Results are unchanged. Those Spanish emigrants who are more educated are more likely to live in English-speaking countries. This is also found when we only consider in the sample those Censuses that were collected from 2000 to 2002, columns 5 and 6 (with year dummies). This sample is chosen since most of the Censuses, 16 of 21, were collected between 2000 and 2002, and thus any impact of the differences in the year of the Census collection should be mitigated. To provide even more evidence that these results are not driven by the sample of destination countries, we have repeated the analysis by excluding Spanish emigrants living in the two neighbouring countries, France and Portugal (see columns 7 and 8). In this case, we still observe that, for those Spanish emigrants with at least some college, English-speaking countries are the most likely for emigration. Nevertheless, there are some differences in the choice between Spanish and others. Column 7 reports that the odds of living in a country with other languages, relative to living in a Spanish-speaking country, are 1.6 times greater for those with at least some college, holding the rest of the variables constant. This relationship changes when the year dummies are included, column 8, reporting again that the selection order of countries for those with some college or University completed, considering the language of the destination country, is: first, English-speaking countries, then Spanish-speaking countries, and finally, non-Spanish and non-English-speaking countries. The behaviour is similar in the case of those Spanish emigrants who only report secondary completed, although the effect is greater for more educated individuals. Remember that the omitted variable is primary completed or less than primary.

⁹ The analysis has been repeated including, and excluding, all controls, and the findings do not change.

Table 4 also includes the estimates after adding Spanish emigrants living in the UK. As explained above, though there are no observations for the period considered (2000-2007) for UK, the 1991 UK Census contains information on Spanish emigrants. Despite concerns that the incorporation of that information can generate, because of the differences in the periods in which data was collected, we check whether the results are maintained after incorporating this destination of Spanish emigrants, columns 9 and 10. Without year dummies, we find that Spanish emigrants with secondary completed are more likely to settle in Spanish-speaking countries, then they choose English-speaking countries, and the least likely are the countries with other languages. In the case of Spanish emigrants with at least some college, there are no significant differences between English and Spanish countries, although we observe that English-speaking countries are more likely than those with other languages. After adding year dummies, (in this case, it is even more necessary to capture the unobservable characteristics due to the significant differences in the years of the Census, column 10), the location choices are again: English, Spanish, and Others, for both Spanish emigrants with secondary completed and Spanish emigrants with at least some college. As previously, we recognize some concerns with the high McFadden's Adjusted R-squared after adding year dummies. Although not included in the table, we observe lower R-squared once observations from France are excluded in all specifications, and the findings do not vary substantially.

To test the robustness of the results further, we have also considered different subsamples, varying the age of the Spanish emigrants. One can surmise that older Spanish emigrants migrated to their destination country as a consequence of the Spanish Civil War (1936-1939) and the subsequent dictatorship period (1939-1975). But, even in this case, it could be argued that the final destination country of those Spanish emigrants could be related to their level of education. To tackle this issue, we have considered different age groups. The samples consist of individuals aged 25 to 64, 25 to 49, 30 to 49, and 25 to 39. Results are presented in Table 5, Columns 3 to 10. Columns 1 and 2 incorporate the main sample, Spanish emigrants aged 25 to 59, to make comparison easier. Regardless of the age groups analyzed, results point to an important role of education level in the location choice. In all the samples considered, we observe that the most likely choice for those with at least some college is an English-speaking country,

with this being even more likely for those with secondary completed. Then, those individuals prefer Spanish-speaking countries and their less likely choice is a country with another official language. Another way to test this issue would be to select individuals by year of migration. Unfortunately, this information is only available for 10 destination countries (Bolivia, Chile, Colombia, Costa Rica, El Salvador, France, Greece, Ireland, Nicaragua, and the United States).¹⁰ This is somewhat problematic, since that group of countries cannot be considered a random sample of Spanish emigrant destination countries. It does not incorporate main destinations of Spanish emigrants, such as Argentina, Cuba, or Venezuela, and all of those Spanish-speaking countries have a greater proportion of Spanish emigrants with at least some college. In Table 1, we observe that around 70% of Spanish emigrants have at least some college in those Spanish-speaking countries, whereas in, for example, Argentina only 17% of Spanish emigrants have at least some college. When the year of migration is used to select the sample of those arriving in the country of destination, from the Spanish Civil War until 1960 (and even until 1970), we observe that more educated individuals are more likely to settle in Spanish-speaking countries. However, if we repeat the analysis, with only those 10 destination countries, and using the main sample, that is, without considering the year of migration, we obtain the same results; Spanish-speaking countries are the most likely choice. Then, the use of the year of migration information is not particularly useful, due to the significant deficiencies in the sample used.¹¹

The decision to migrate for Spanish emigrants could have been for reasons of education. For example, emigrants could move to some specific countries to obtain a University degree, or the Spanish emigrants could have arrived in the destination country at a young age, as a consequence of their parent migration decision, and so all their education took place in the destination country.¹² For those Spanish emigrants, the level of education that they have when the Census was collected in their destination countries does not correspond to the level of education at the time of migration, possibly

¹⁰ For France, the information on the year of migration is reported in intervals. We have used the middle year of each interval as a proxy of the year of migration.

¹¹ Those estimates are available upon request.

¹² Using information from PERE 2009, we see that less than 3% of the Spanish emigrants are younger than 16. Then, this represents a quite small part of the Spanish emigrant population.

biasing our results. Although this should be, in part, mitigated with the incorporation of individuals older than 25 (they are more likely to have finished schooling), to deal with this potential problem, we could have used information on the age at migration of Spanish emigrants, but this data is not available. As an exception, we use the year of migration information to obtain the age at migration. However, we have the same problems with the sample of destination countries, as explained above. Regardless of the age group considered, results are similar to those described above. Thus, the use of the year of migration information is a little problematic. As suggested by Grogger and Hanson (2011), another way to address this problem is to redefine the education variables. All the analysis has been re-run by incorporating an education variable that takes the value of 1 if the Spanish emigrant reports a secondary completed level of education, or at least some college, and zero otherwise. This minimizes the possible bias if tertiary-educated emigrants obtain at least a secondary education in their country of origin. Results do not vary.¹³ This is not surprising, since previous estimates show that both those with at least some college and those with only secondary level of education completed are more likely to live in English-speaking countries, then they are to settle in Spanish-speaking countries, and those countries with other languages are the least likely choice as a place of residence.

Empirical evidence is also presented in an odds-ratio plot, which can be easier to interpret. Figure 1 shows the estimates for the main specification, Column 1 of Table 4. In the odds-ratio plot, the independent variables are represented in a separate row. The horizontal axis indicates the relative magnitude of the coefficients associated with each outcome. The numbers correspond to the outcome categories, that is to say, "1" denotes English as official language, "2" indicates other languages, and "3" corresponds to Spanish as the official language, which is the base category in that figure. The additive scale on the bottom axis measures the value of $\beta_{i,mn}\delta$. The multiplicative scale on the top axis measures $\exp(\beta_{i,mn})\delta$. The distance between a given pair of outcomes indicates the magnitude of the effect, and the statistical significance is shown by drawing a line between categories for which there is no statistically significant coefficient at the 5% level of significance. Results suggest that the education level of

¹³ Those estimates are available upon request.

emigrants is important in the destination country choice. For those individuals having secondary completed, the odds of choosing a country with Spanish or other official languages versus English decrease by 51% and 89%, respectively, whereas, for those having at least some college the odds of choosing a country with Spanish or other languages as the official language versus English decrease by 73% and 92%, respectively.¹⁴ In this figure, it is easy to see similar behaviour of those with a secondary and tertiary level of education, relative to those with a primary level of education (or less than primary) although those with at least some college appear to be more likely to be living in English-speaking countries. Thus, it appears that the location choices considering the language of the destination country varies between primary level of education and secondary (and higher) level of education.

b. Destination countries classified by continent

English-speaking countries appear to be the most likely choice for those more educated Spanish emigrants; however, English-speaking countries are located on different continents in the world. The location of those destination countries can also be an important factor that Spanish emigrants take into account when moving to one or another country. As the literature indicates (Belot and Hatton 2012; Clark et al. 2007), since the greater the physical distance, the greater the migration costs and the less possible knowledge of the situation (institutional, social, and economic) of the potential destination countries, we would expect that those low-educated emigrants relocate to closer countries (lower travel costs, greater possibilities for illegal migration, more facilities to know the country, and ease of return to their country of origin).

To study this issue, we consider as dependent variable the continent of the destination countries. Table 6 reports the results. As expected, those Spanish emigrants with at least some college are less likely to settle in Europe (the factor change is less than 1), column 1. There are no statistically significant differences between America and continents other than Europe. Similarly, those reporting having secondary

¹⁴ The percentage changes are obtained as follows: $100(\exp(\beta_{i,mn} \times \delta) - 1)$, with $\delta = 1$, except when we note the contrary.

completed are also less likely to settle in Europe than in the Americas or elsewhere.¹⁵ This again points to two different responses by level of education. The low-educated individuals (with primary school or less) are less likely to live in distant countries, whereas physical distance appears to be less important for those with secondary or tertiary level of education because they prefer to live in the Americas or elsewhere. Results do not change substantially when the year dummies are included in column 2, although there are no statistically significant differences between Europe and other continents (except for the Americas) if individuals report having at least some college. The same is found when Spanish emigrants living in the UK are incorporated in the sample in columns 3 and 4 (with year dummies).

It is not only the physical distance between country of origin and destination country that may affect Spanish emigrants' choices. As the empirical evidence indicates in the previous subsection, language appears to play a role. For that, the analysis has been repeated using a combination of both characteristics of the destination countries. The sample is limited to those living in Europe and America.¹⁶ The official languages, or the most common languages, are classified as before (English, Spanish, Others). Results are presented in Table 7. In the case of those Spanish emigrants reporting a level of education of some college or University completed, we observe no statistically significant differences between English-speaking countries, columns 1 and 2 (with year dummies). For those with secondary completed, English-speaking countries located in Europe are more likely than those in the Americas, although only at the 10% level of significance in the specification that includes the year dummies, column 2. When we compare the English-speaking countries, regardless of their location versus the rest of categories, we observe that more educated Spanish emigrants are more likely to live in English-speaking areas. Again, results suggest that those with secondary completed choose European English-speaking countries in greater proportion than those individuals reporting tertiary level of education. Both groups of emigrants also appear to

¹⁵ Of course, some African countries are located closer to Spain than some European countries. Unfortunately, we only have information on South Africa. As mentioned above, we repeat the analysis considering the distance, measured in kilometers, and results are maintained.

¹⁶ These are the main destinations of Spanish emigrants. Individuals born in Spain and living in those areas of the world represent 96% of the total Spanish emigrants (PERE 2009). Note that adding multiple categories to the dependent variable can be problematic for the convergence of the estimates. The number of observations in this case is 54,275.

prefer living in the Americas, regardless of the language of the country than in European countries with languages other than English. However, Spanish emigrants with at least some college are less likely to be living in American countries with Spanish as the official language than in American countries with other languages (neither Spanish nor English), whereas results indicate that those with only secondary completed prefer American countries with Spanish as the official language, rather than American countries with other languages, column 2 (although this is only significant at the 10% level). Then, when distance and language are jointly incorporated as characteristics of the destination countries, we find certain differences in the behaviour of those with secondary and tertiary level of education. This work has been repeated to include data from the UK, columns 3 and 4, and, as before, results are somewhat strange without year dummies, column 3. This is not surprising, since data on the UK was reported in 1991, but when year dummies are included, it is possible to obtain the same conclusions, column 4.

Figure 2 also shows the results in an odds-ratio plot. As can be seen, results suggest the following order of choices for Spanish emigrants with secondary completed: Europe (English), the Americas (English), the Americas (Spanish), the Americas (Others), Europe (Others). For those with some college, results suggest that the preferences of location are as follows: the Americas (English), Europe (English), the Americas (Others), the Americas (Spanish), Europe (Others). These findings indicate that the education level of emigrants is significant in choosing a country of destination when considering the location of those countries jointly with their official or most common language.

c. Destination countries classified by unemployment level

Up to this point, we have omitted the analysis of the economic situation of the destination countries as a relevant characteristic in determining the country of destination. There are several ways to measure the economic situation of a country, and in this work, we use the unemployment rate as a common proxy that reflects the labour market situation. Unfortunately, we cannot introduce the unemployment level in the year of migration of Spanish emigrants. As explained above, the information on the year of migration is not available for all the destination countries considered in our analysis. Although recognizing that this is not the best measure of the economic situation, we

measure this variable in the year in which the Census was available.¹⁷ We would expect that highly-educated individuals locate in countries with low unemployment rates since they may have a better knowledge of the destination country and would expect to obtain high rewards for their skills, which is more likely to happen in those countries in a better economic situation (this normally corresponds with low unemployment rates).

In Table 8, we observe the main results of this analysis. For those reporting secondary completed, we find that the odds of living in a country with low unemployment rate, compared to medium or high unemployment rates are around 3.8 and 1.5 times greater, respectively, holding the rest of the variables constant, columns 1 and 2. This is not so clear for those with at least some college, although without year dummies the behaviour is similar; after adding these controls (column 2), we detect that those with at least some college are more likely to be settled in countries with medium unemployment rates than with low unemployment rates, and that the high unemployment countries are the least likely option. The findings are the same when the sample of Spanish emigrants living in the UK is added to the main sample in columns 3 and 4. Then, although the less likely countries are those with high unemployment rates, for high-educated individuals, mixed results appear when comparing those with unemployment rates lower than 10% (medium and low unemployment rates).

It is possible to argue that these mixed results are due to the fact that Spanish emigrants consider not only the economic situation of a country when they decide to migrate, but also other characteristics. As before, we combine the economic situation and the location of the destination countries, since migration costs can also be relevant (Clark et al. 2007).¹⁸ Results are presented in Table 9, columns 1 to 4. Regardless of the sample used and of the controls included, it could be concluded that those countries in the Americas, with low unemployment rates, are the most likely choice when individuals have at least some college. This is also seen in the case of those with secondary completed, although the estimates are not statistically significant between the categories American countries with low unemployment and European countries with high unemployment rates. European countries with high unemployment rates are also

¹⁷ There are no significant changes in the results when we use the mean of the unemployment rate measure in different periods, such as from 1990 to 2000, in each destination country.

¹⁸ The analysis is limited to Europe and the Americas.

more likely to be the location choice of highly-educated individuals, versus American countries with equally high unemployment rates. However, it is striking that between European countries with low and high unemployment rates, both those with secondary completed and those with at least some college are more likely to choose a European country with high unemployment rates. This appears to reflect that the shorter distance, the less important is the better economic situation of the country of destination.

The economic situation, the location, and the language, as we demonstrate in this work, are characteristics that Spanish emigrants take into consideration when they decide to migrate. Following a similar framework, we have re-run the analysis with a new definition of the dependent variable, incorporating all the possible combinations of the language (English, Spanish, Others), the distance (Europe or the Americas), and the unemployment level of the destination countries (below average unemployment rate, or above average unemployment rate). At first glance, due to the high number of estimated coefficients, results presented in Table 10 are quite difficult to interpret. For that, the odds-ratio plot represented in Figure 3, may be useful for analysis, by including the results reported in column 4 of Table 10. Those individuals with at least some college are more likely to settle in English- or Spanish-speaking American countries with low unemployment rates, rather than living in countries with high unemployment rates, located in Europe or the Americas and having as the official language Spanish or languages other than English. There are no statistically significant differences between the European countries and the American countries with English and Spanish as official languages and low unemployment rates. The less likely destination choice for highly-educated individuals is a European country with low unemployment rates and with languages other than Spanish or English. Then, even when including the official language, we find that the less the distance, the less likely are the highly-educated to consider the better economic situation of the destination country, with the exception of the English-speaking European countries. However, the greater the distance between the country of origin and the destination country (American countries) the more likely are the highly-educated to take into account the economic situation and so to choose low-unemployment countries. With respect to those with the secondary level of education, the behaviour is quite similar, although results suggest that a greater proportion prefer to choose the English-speaking European countries, but again there are no statistically significant differences with English and Spanish-speaking American countries having

low unemployment rates. The American countries with high unemployment rates are less likely choices than those with low unemployment rates. As before, the least likely destination for those with secondary completed are the European countries with low unemployment rates and other languages, while the European countries with high unemployment rates and other languages are a more likely choice. Results are maintained with/without year dummies, with/without data from the UK, (see Table 10), and with/without data from Spanish emigrants living in France (see Figure 4). We can conclude that there are few dissimilarities between the Spanish emigrants with secondary and tertiary levels of education. For the more educated, English and Spanish-speaking countries are preferred, but with low unemployment rates. We also observe that being in a better economic situation plays a role, the greater the distance between the country of origin and the destination country, for highly-educated individuals.

d. Analysis over time

In this subsection, we study whether our findings are maintained over time. We recognize that the results obtained should be treated with caution, since the number of destination countries is quite limited in certain periods, and in several cases is concentrated only in the Americas, with no data from Europe. For this reason, we only analyze the relationship between the official language or the most common language of each destination country, and the education level of the Spanish emigrants (including all controls). The estimates have been repeated every ten years since 1960 to 2010. Data come from the Integrated Public Use Microdata Series-International of the Censuses (Minnesota Population Center 2014).

Results are reported in Table 11. The estimates indicate that English-speaking countries are much more likely to be the place of residence of Spanish emigrants than countries with Spanish as the official language, in all decades considered, for those with secondary and tertiary level of education. Results on the relationship between Spanish-speaking countries and countries with languages other than English are mixed. In some decades, we find non-statistically significant results, in other decades, Spanish-speaking countries are more likely to be chosen than countries with other languages, and there are some decades with opposite results. Note that the countries with Spanish and Other languages vary dramatically from one decade to another, so results cannot be conclusive

with those samples. With respect to the choice between English-speaking countries and countries with other languages, those with English as the official or the most common language are the most likely choice in all decades for those with secondary and tertiary level of education, although the decade of the 1990s is not statistically significant. Results are unchanged with/without year dummies, columns 1 and 2. Being aware of the problems that the sample of destination countries can generate, it is comforting that the pattern of behaviour of Spanish emigrants with both secondary and tertiary level of education is quite similar over time.

5. Conclusions

This paper examines the relationship between the education level of Spanish emigrants and their country of destination. Since Spanish emigrants were born under the same laws, economic conditions, and institutions, the differences in their location choice can be due to dissimilarities in their level of education. To study this issue, our work primarily uses microdata from the Censuses of 21 countries, for the period from 2000 to 2007. Destination countries are classified using three characteristics: the official or most common language, the physical distance between the country of origin and the destination, and the level of unemployment. In this way, we take into consideration the migration decisions of individuals based on language, migration costs, and job-search.

Our results suggest greater preferences of Spanish emigrants with secondary and tertiary level of education for English-speaking countries, more distant countries, and countries with low unemployment rates when each of these factors is analyzed separately. Our findings are quite robust to the inclusion of several socio-demographic characteristics and to the use of different sub-samples.

By combining these characteristics, we also draw interesting conclusions. There are still similarities in the location choice between those with secondary and tertiary level of education. English-speaking countries, regardless of the location (Ireland, the US, and the UK), and Spanish-speaking countries with low unemployment rates, are the most likely residence choices for more educated emigrants. The highly-educated are more likely to choose to live in distant countries (with the exception of the UK and Ireland), but if it is a Spanish-speaking country, the economic situation is a significant factor.

However, when those individuals decide to move to a European country, they appear to pay less attention to the economic situation, since the less likely option for them is a European country with a low unemployment rate (excluding the UK and Ireland).

All in all, our results reveal that the level of education plays a role in the location choice of those who decide to migrate, but that the differences appear to be more significant between those with primary level of education and those with secondary or higher level of education. Our findings denote the importance of considering several of the characteristics of the destination country to determine how potential emigrants choose a country to live in. The conclusions provided by this work can also be useful for potential destination countries, in order to implement policies to attract specific groups of emigrants.

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Table 1. Summary Statistics by Destination Country

Country	Age	Male	Secondary Completed	College or more	Married	Employed	Observations
Argentina	51.97	0.49	0.31	0.17	0.73	0.58	3,372
Austria	38.80	0.37	0.28	0.34	0.37	0.73	132
Bolivia	41.06	0.56	0.32	0.64	0.47	0.64	77
Brazil	50.44	0.58	0.27	0.36	0.80	0.65	737
Chile	41.65	0.57	0.24	0.69	0.69	0.70	379
Colombia	42.15	0.60	0.12	0.85	0.62	0.76	96
Costa Rica	42.55	0.57	0.21	0.67	0.64	0.70	86
Cuba	50.36	0.45	0.40	0.33	0.67	0.55	55
El Salvador	42.24	0.52	0.16	0.72	0.84	0.80	25
France	47.01	0.47	0.12	0.21	0.66	0.74	41,193
Greece	39.87	0.22	0.31	0.50	0.72	0.54	68
Ireland	30.43	0.36	0.30	0.66	0.18	0.79	343
Mexico	43.65	0.59	0.30	0.51	0.82	0.70	850
Nicaragua	41.56	0.44	0.26	0.70	0.67	0.78	27
Panama	43.52	0.58	0.26	0.49	0.76	0.79	96
Peru	42.42	0.61	0.22	0.74	0.57	0.57	195
Philippines	38.68	0.40	0.10	0.41	0.66	0.00	19
Portugal	39.56	0.44	0.20	0.34	0.75	0.69	259
South Africa	47.07	0.57	0.60	0.21	0.79	0.65	23
United States	38.80	0.48	0.23	0.66	0.66	0.73	3,248
Venezuela	48.53	0.53	0.34	0.29	0.76	0.66	3,037
Mean	45.34	0.49	0.21	0.36	0.68	0.70	
Std. Dev.	9.69	0.50	0.41	0.48	0.47	0.46	

Notes: Data come from the IPUMS-International microdata for the period 2000-2007.

Table 2. Characteristics of the Destination Countries

Country	Official/ Most Common Language	Unemployment Rate	Continent
Argentina	Spanish	18.3	America
Austria	German	3.6	Europe
Bolivia	Spanish	5.4	America
Brazil	Portuguese	9.5	America
Chile	Spanish	8.9	America
Colombia	Spanish	12.0	America
Costa Rica	Spanish	5.1	America
Cuba	Spanish	3.3	America
El Salvador	Spanish	6.3	America
France	French	8.8	Europe
Greece	Greek	10.2	Europe
Ireland	English	4.2	Europe
Mexico	Spanish	2.6	America
Nicaragua	Spanish	5.6	America
Panama	Spanish	13.5	America
Peru	Spanish	4.5	America
Philippines	Filipino	11.2	Asia
Portugal	Portuguese	4.0	Europe
South Africa	English	25.4	Africa
United States	English	4.0	America
Venezuela	Spanish	12.8	America
Mean		8.75	
Std. Dev.		4.47	

Table 3. Average Absolute Change in the Destination Country Choice
(Dep. Var.: Languages (English, Spanish, Others))

	1	2
Age	0.216***	0.202***
Age sq/100	0.226***	0.205***
Male	0.027***	0.044***
Secondary Completed	0.266***	0.270***
Some College/University Completed	0.254***	0.267***
Married		0.053***
Employed		0.086***
Observations	54,317	54,317

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Philippines 2000, Portugal 2001, South Africa 2001, United States 2000, and Venezuela 2001. Countries classified using the official or most common language. For binary variables, we compute the average of the absolute values of the discrete changes across all the outcome categories. For the rest of the variables, we compute the average absolute change of one standard deviation centred on the base values. The hypothesis that each variable does not affect the dependent variable is tested with LR test. Estimates are weighted. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 4

	1	2	3	4	5	6	7	8	9	10
Secondary Completed										
English-Others	8.797***	2.328 ***	2.862***	2.328***	2.881***	2.328***	2.210***	2.117***	2.367***	2.328***
English-Spanish	2.027***	1.396**	2.047***	1.396**	2.100***	1.396**	1.971***	1.509***	0.560***	1.396**
Others-Spanish	0.230***	0.600***	0.715***	0.600***	0.729***	0.600***	0.892***	0.713***	0.237***	0.600***
Some College/University Completed										
English-Others	11.937***	2.752***	4.127***	2.752***	4.159***	2.752***	2.878***	2.628***	3.065***	2.752***
English-Spanish	3.680***	1.548 ***	3.720***	1.548***	4.152***	1.548***	3.557***	1.606***	0.983	1.548***
Others-Spanish	0.308***	0.563***	0.901	0.563***	0.998	0.563***	1.236**	0.611***	0.321***	0.563***
Year Dummies	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
McFadden's Adj R ²	0.161	0.713	0.144	0.471	0.154	0.460	0.158	0.517	0.115	0.735
Observations	54,317	54,317	13,124	13,124	12,781	12,781	12,865	12,865	54,518	54,518

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Philippines 2000, Portugal 2001, South Africa 2001, United States 2000, and Venezuela 2001. The dependent variable is the official language or the most common language of the destination countries. Languages are classified in the following categories: English, Spanish, and Other. This table shows the factor change in the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Columns (1) to (10) include as controls: age, age square/100, gender (male), married, employed. Column (3) and (4) excludes France. Columns (5) and (6) include information on those countries collecting their census from 2000 to 2002. Columns (7) and (8) exclude France and Portugal. Columns (9) and (10) include UK 1991. Estimates are weighted. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 5

	1	2	3	4	5	6	7	8	9	10
Secondary Completed										
English-Others	8.797***	2.328 ***	9.407***	2.704***	9.028***	2.2033***	9.930***	2.089***	1.444***	3.174***
English-Spanish	2.027***	1.396**	2.352***	1.587***	1.747***	1.204	1.955***	1.262	0.732***	1.244
Others-Spanish	0.230***	0.600***	0.250***	0.587***	0.194***	0.5463***	0.197***	0.604***	0.507***	0.392***
Some College/University Completed										
English-Others	11.937***	2.752***	12.257***	3.268***	12.73***	2.4242***	14.727***	2.276***	8.223***	4.229***
English-Spanish	3.680***	1.548 ***	4.148***	1.630***	2.940***	1.4963***	3.404***	1.705***	1.509**	1.568**
Others-Spanish	0.308***	0.563***	0.338***	0.499***	0.231***	0.6172***	0.231***	0.749**	0.184***	0.371***
Year Dummies	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
McFadden's Adj R ²	0.161	0.713	0.152	0.713	0.161	0.698	0.160	0.696	0.084	0.674
Observations	54,317	54,317	65,045	65,045	30,743	30,743	27,235	27,235	12,259	12,259

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Philippines 2000, Portugal 2001, South Africa 2001, United States 2000, and Venezuela 2001. The dependent variable is the official language or the most common language of the destination countries. Languages are classified in the following categories: English, Spanish, and Other. This table shows the factor change in the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Column (1) to (10) include as controls: age, age square/100, gender (male), married, employed. Columns (3) and (4) include individuals aged 25 to 64. Columns (5) and (6) include individuals aged 25 to 49. Columns (7) and (8) include individuals aged 30 to 49. Columns (9) and (10) include individuals aged 25 to 39. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 6

	1	2	3	4
Secondary Completed				
Europe-America	0.168***	0.413***	0.134***	0.413***
Europe-Others	0.139***	0.333**	0.109***	0.333**
America-Others	0.828	0.806	0.812	0.806
Some College/University Completed				
Europe-America	0.151***	0.252***	0.116***	0.252***
Europe-Others	0.288**	0.457	0.217***	0.457
America-Others	1.908	1.810	1.860	1.811
Year Dummies	No	Yes	No	Yes
McFadden's Adj R ²	0.134	0.823	0.162	0.834
Observations	54,317	54,317	54,518	54,518

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Philippines 2000, Portugal 2001, South Africa 2001, United States 2000, and Venezuela 2001. The dependent variable is the location of the destination countries. This location is classified in the following categories: Europe, America, and Other (Philippines and South Africa). This table shows the factor change in the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Columns (1) to (4) include as controls: age, age square/100, gender (male), married, employed. Columns (3) and (4) include UK 1991. Estimates are weighted. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 7

	1	2	3	4
Secondary Completed				
Europe(English)-America(English)	1.491	1.660*	0.015***	1.660*
Europe(English)-Europe(Others)	15.209***	8.468***	0.149***	8.468***
Europe(English)-America(Others)	3.076***	3.516***	0.030***	3.516***
Europe(English)-America(Spanish)	2.854***	3.297***	0.028***	3.297***
America(English)-Europe(Others)	10.199***	5.101***	10.162***	5.101***
America(English)-America(Others)	2.063***	2.118***	2.030***	2.118***
America(English)-America(Spanish)	1.914***	1.986***	1.889***	1.986***
Europe(Others)-America(Others)	0.202***	0.415***	0.200***	0.415***
Europe(Others)-America(Spanish)	0.188***	0.389***	0.186***	0.389***
America(Others)-America(Spanish)	0.928	0.938*	0.931	0.938
Some College/University Completed				
Europe(English)-America(English)	0.700	0.815	0.008***	0.815
Europe(English)-Europe(Others)	10.150***	8.417***	0.121***	8.417***
Europe(English)-America(Others)	1.800**	2.118**	0.021***	2.118**
Europe(English)-America(Spanish)	2.521***	3.265***	0.030***	3.265***
America(English)-Europe(Others)	14.503***	10.331***	14.567***	10.332***
America(English)-America(Others)	2.572***	2.600***	2.539***	2.600***
America(English)-America(Spanish)	3.602***	4.007***	3.569***	4.008***
Europe(Others)-America(Others)	0.177***	0.252***	0.174***	0.252***
Europe(Others)-America(Spanish)	0.248***	0.388***	0.245***	0.388***
America(Others)-America(Spanish)	1.401***	1.541***	1.406***	1.541***
Year Dummies	No	Yes	No	Yes
McFadden's Adj R ²	0.161	0.570	0.163	0.632
Observations	54,275	54,275	54,476	54,476

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Portugal 2001, United States 2000, and Venezuela 2001. The dependent variable is a combination of the location of the destination countries and the official language or the most common language. This location is classified in the following categories: Europe and America. The language classification is as follows: English, Spanish, and Others. The languages of the destination countries are in parentheses. This table shows the factor change in the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Columns (1) to (4) include as controls: age, age square/100, gender (male), married, employed. Columns (3) and (4) include UK 1991. Estimates are weighted. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10% level.

Table 8

	1	2	3	4
Secondary Completed				
LU-MU	3.783***	1.014	4.546 ***	1.014
LU-HU	1.505***	1.571***	1.561 ***	1.571***
MU-HU	0.3978***	1.549***	0.343 ***	1.549***
Some College/University Completed				
LU-MU	2.898***	0.712**	3.525 ***	0.712**
LU-HU	2.347***	2.622***	2.441 ***	2.622***
MU-HU	0.810***	3.683***	0.692***	3.683***
Year Dummies	No	Yes	No	Yes
McFadden's Adj R ²	0.078	0.373	0.085	0.389
Observations	54,317	54,317	54,518	54,518

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Philippines 2000, Portugal 2001, South Africa 2001, United States 2000, and Venezuela 2001. The dependent variable is the unemployment rate of the destination country (source: World Bank). This unemployment rate is classified in the following categories: Low Unemployment (LU: unemployment rate lower than 4%), Medium Unemployment (MU: unemployment rate between 4% and 9.9%), and High Unemployment (HU, unemployment rate equal to or greater than 10%). This table shows the factor change in the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Columns (1) to (4) include as controls: age, age square/100, gender (male), married, employed. Columns (3) and (4) include UK 1991. Estimates are weighted. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 9

	1	2	3	4
Secondary Completed				
Europe/LU-America/LU	0.099***	0.255***	0.077***	0.255***
Europe/LU –Europe/HU	0.148***	0.363***	0.112***	0.363***
Europe/LU - America/HU	0.209***	0.548***	0.173***	0.548***
America/LU - Europe/HU	1.498	1.424	1.454	1.424
America/LU - America/HU	2.109***	2.148***	2.258***	2.148***
Europe/HU - America/HU	1.407	1.508	1.553	1.508
Some College/University Completed				
Europe/LU-America/LU	0.069***	0.133***	0.052***	0.133***
Europe/LU –Europe/HU	0.161***	0.292***	0.117***	0.292***
Europe/LU - America/HU	0.307 ***	0.590***	0.249***	0.590***
America/LU - Europe/HU	2.344**	2.189 **	2.257**	2.189**
America/LU - America/HU	4.479***	4.425***	4.792***	4.425***
Europe/HU - America/HU	1.911*	2.022**	2.124**	2.022**
Year Dummies	No	Yes	No	Yes
McFadden's Adj R ²	0.178	0.630	0.196	0.646
Observations	54,275	54,275	54,476	54,476

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Portugal 2001, United States 2000, and Venezuela 2001. The dependent variable is a combination of the location of the destination country and the unemployment rate. This location is classified in the following categories: Europe and America. The unemployment rate is divided in two categories: above the average unemployment rate (HU) and below the average unemployment rate (LU). This table shows the factor change in the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Columns (1) to (4) include as controls: age, age square/100, gender (male), married, employed. Columns (3) and (4) include UK 1991. Estimates are weighted. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 10

	1	2	3	4
Secondary Completed				
EU/LU/English-EU/LU/Others	15.571***	9.662***	0.152***	9.595***
EU/LU/English - AM/LU/English	1.510	1.712*	0.015***	1.701*
EU/LU/English - AM/LU/Spanish	1.364	1.667	0.013***	1.555
EU/LU/English - EU/HU/Others	2.203*	2.431*	0.022***	2.411 *
EU/LU/English - AM/HU/Others	3.130***	3.689***	0.030***	3.647***
EU/LU/English - AM/LU/Spanish	3.189***	3.741***	0.031***	3.700***
EU/LU/Others - AM/LU/English	0.097***	0.177***	0.097 ***	0.177***
EU/LU/Others - AM/LU/Spanish	0.088***	0.173***	0.087***	0.162***
EU/LU/Others - EU/HU/Others	0.142***	0.252***	0.142***	0.251***
EU/LU/Others - AM/HU/Others	0.201***	0.382***	0.198***	0.380***
EU/LU/Others - AM/HU/Spanish	0.205***	0.387***	0.203***	0.386***
AM/LU/English - AM/LU/Spanish	0.903	0.974	0.895	0.914
AM/LU/English - EU/HU/Others	1.459	1.419	1.456	1.418
AM/LU/English - AM/HU/Others	2.073***	2.155***	2.035***	2.144 ***
AM/LU/English - AM/HU/Spanish	2.112***	2.185***	2.078***	2.175***
AM/LU/Spanish - EU/HU/Others	1.615	1.458	1.627	1.550
AM/LU/Spanish - AM/HU/Others	2.295***	2.213***	2.275***	2.345***
AM/LU/Spanish - AM/HU/Spanish	2.338***	2.244***	2.323***	2.379***
EU/HU/Others - AM/HU/Others	1.421	1.518	1.398	1.513
EU/HU/Others - AM/HU/Spanish	1.447	1.539	1.428	1.535
AM/HU/Others - AM/HU/Spanish	1.019	1.014	1.021	1.015
Some College/University Completed				
EU/LU/English-EU/LU/Others	10.706***	9.888 ***	0.126***	9.912***
EU/LU/English - AM/LU/English	0.723	0.854	0.009***	0.861
EU/LU/English - AM/LU/Spanish	0.712	0.967	0.008***	0.853
EU/LU/English - EU/HU/Others	1.677	1.911	0.020***	1.923
EU/LU/English - AM/HU/Others	1.926**	2.325**	0.022***	2.361**
EU/LU/English - AM/HU/Spanish	3.700***	4.460***	0.043***	4.522***
EU/LU/Others - AM/LU/English	0.068***	0.086***	0.067***	0.087***
EU/LU/Others - AM/LU/Spanish	0.067***	0.098***	0.066***	0.086***
EU/LU/Others - EU/HU/Others	0.157***	0.193***	0.156***	0.194***
EU/LU/Others - AM/HU/Others	0.180***	0.235***	0.177***	0.238***
EU/LU/Others - AM/HU/Spanish	0.346***	0.451***	0.340***	0.456***
AM/LU/English - AM/LU/Spanish	0.985	1.131	0.977	0.991
AM/LU/English - EU/HU/Others	2.320**	2.236**	2.317**	2.235**
AM/LU/English - AM/HU/Others	2.665***	2.721***	2.626***	2.744***
AM/LU/English - AM/HU/Spanish	5.119 ***	5.219***	5.059***	5.254***
AM/LU/Spanish - EU/HU/Others	2.357 **	1.976*	2.372 **	2.256**
AM/LU/Spanish - AM/HU/Others	2.707***	2.405***	2.688***	2.770***
AM/LU/Spanish - AM/HU/Spanish	5.199***	4.613***	5.179***	5.304***
EU/HU/Others - AM/HU/Others	1.148	1.217	1.133	1.228
EU/HU/Others - AM/HU/Spanish	2.206**	2.334**	2.184**	2.351**
AM/HU/Others - AM/HU/Spanish	1.921 ***	1.918***	1.927***	1.915***
Year Dummies	No	Yes	No	Yes
McFadden's Adj R ²	0.159	0.529	0.162	0.581
Observations	54,275	54,275	54,476	54,476

Notes: Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Portugal 2001, United States 2000, and Venezuela 2001. The dependent variable is a combination of the location of the destination country, the official language or the most common language and the unemployment rate. This location is classified in the following categories: Europe (EU) and America (AM). The language classification is as follows: English, Spanish, and Others. The unemployment rate is divided in two categories: above the average unemployment rate (HU) and below the average unemployment rate (LU). This table shows the factor change in the odds ratios, $\exp(\beta_{i,m(n)}\delta)$ with $\delta=1$. Columns (1) to (4) include as controls: age, age square/100, gender (male), married, employed. Columns (3) and (4) include UK 1991. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Table 11. Analysis by decade from 1960 to 2010

Decade	1	2
Decade 1960		
Secondary Completed		
English-Others	16.073***	17.345 ***
English-Spanish	4.734***	3.257**
Others-Spanish	0.295***	0.188***
Some College/University Completed		
English-Others	14.586 ***	15.379***
English-Spanish	4.752***	1.626
Others-Spanish	0.326***	0.106***
Year Dummies	No	Yes
McFadden's Adj R ²	0.078	0.546
Observations	8,803	8,803
Decade 1970		
Secondary Completed		
English-Others	10.797***	10.744***
English-Spanish	9.623***	10.847***
Others-Spanish	0.891	1.010
Some College/University Completed		
English-Others	10.240***	10.180 ***
English-Spanish	10.505***	10.406***
Others-Spanish	1.026	1.022
Year Dummies	No	Yes
McFadden's Adj R ²	0.052	0.178
Observations	24,226	24,226
Decade 1980		
Secondary Completed		
English-Others	3.701***	3.879***
English-Spanish	5.469***	6.050***
Others-Spanish	1.478***	1.560***
Some College/University Completed		
English-Others	4.175 ***	4.411***
English-Spanish	7.312***	7.992***
Others-Spanish	1.752***	1.812***
Year Dummies	No	Yes
McFadden's Adj R ²	0.053	0.084
Observations	27,499	27,499

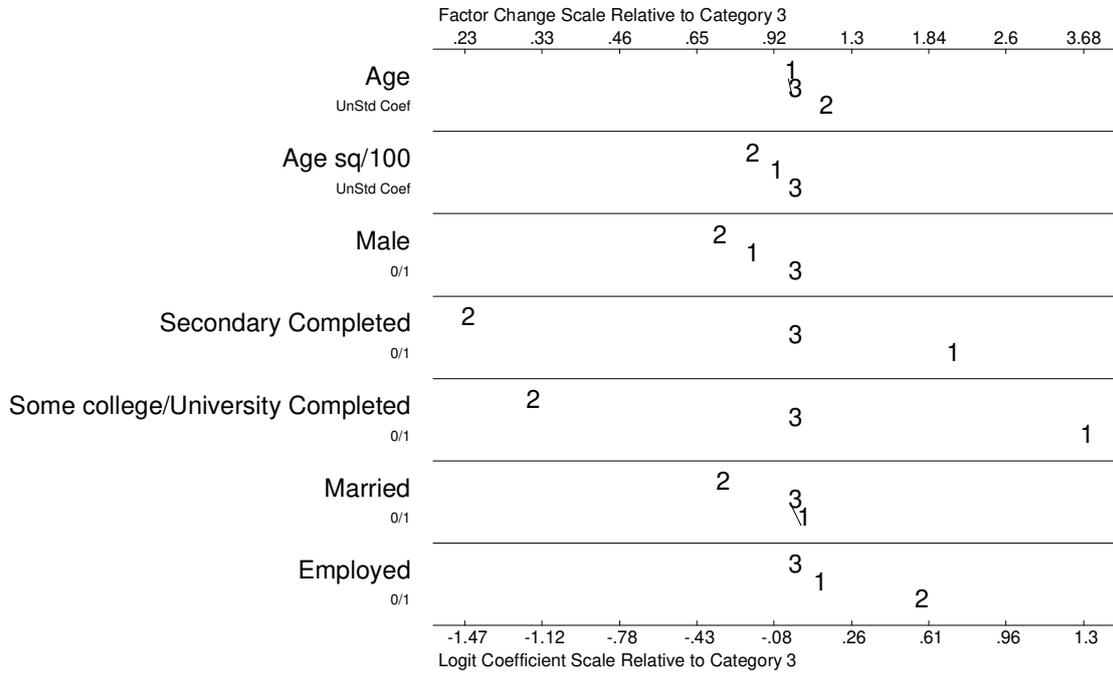
Table 11 (Continuation)

Decade 1990	1	2
Secondary Completed		
English-Others	1.071	1.056
English-Spanish	1.473***	1.533***
Others-Spanish	1.376***	1.451***
Some College/University Completed		
English-Others	1.069	1.062
English-Spanish	1.598***	1.816***
Others-Spanish	1.495***	1.710 ***
Year Dummies	No	Yes
McFadden's Adj R ²	0.078	0.094
Observations	17,368	17,368
Decade 2000		
Secondary Completed		
English-Others	4.130***	4.130***
English-Spanish	3.879***	3.879***
Others-Spanish	0.939	0.939
Some College/University Completed		
English-Others	4.599 ***	4.599 ***
English-Spanish	8.628***	8.628***
Others-Spanish	1.876**	1.876**
Year Dummies	No	Yes
McFadden's Adj R ²	0.120	0.120
Observations	2,718	2,718

Notes: Decade 1960: Sample consists of emigrants in Brazil 1960, Colombia 1964, Costa Rica 1963, Ecuador 1962, Mexico 1960, United States 1960, and Uruguay 1963. Decade 1970: Sample consists of emigrants in Argentina 1970, Bolivia 1976 Brazil 1970, Chile 1970, Colombia 1973, Costa Rica 1973, Mexico 1970, Romania 1977, United States 1970, Uruguay 1975, and Venezuela 1971. Decade 1980: Sample consists of emigrants in Argentina 1980, Brazil 1980, Chile 1982, Costa Rica 1984, Ireland 1986, Panama 1980, Portugal 1981, United States 1980, Uruguay 1985, and Venezuela 1981. Decade 1990: Sample consists of emigrants in Argentina 1991, Brazil 1991, Chile 1992, Colombia 1993, Ireland 1996, Mexico 1990, Nicaragua 1995, Peru 1993, Portugal 1991, Romania 1992, United Kingdom 1991, United States 1990, and Venezuela 1990. Decade 2000: Sample consists of emigrants in Argentina 2010, Brazil 2010, Ecuador 2010, Mexico 2010, Panama 2010, United States 2010. The dependent variable is the official language or the most common language of the destination countries. Languages are classified in the following categories: English, Spanish, and Other. This table shows the odds ratios, $\exp(\beta_{i,m|n})\delta$ with $\delta=1$. Columns (1) to (2) include as controls: age, age square/100, gender (male), married, employed. Estimates are weighted. Robust standard errors. ***Significant at the 1% level, **Significant at the 5% level, *Significant at the 10 % level.

Figure 1

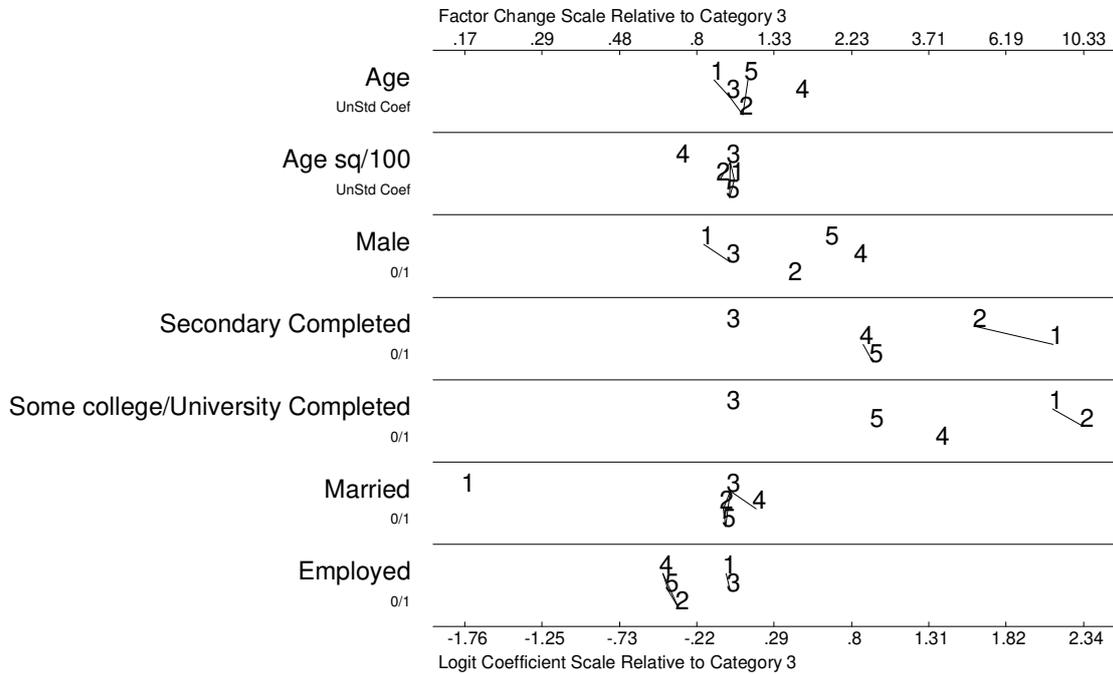
(Dep. Var.: Languages (English, Spanish, Others))



Notes: Robust standard errors. Sample: see Table 4. Countries classified using the official or most common language. The numbers correspond to the outcome categories: 1 indicates English, 2 indicates Others, and 3 indicates Spanish. The additive scale on the bottom axis measures the value of $\beta_{i,m|n} \delta$. The multiplicative scale on the top axis measures $\exp(\beta_{i,m|n}) \delta$. The statistical significance is shown by drawing a line between categories for which there is no significant coefficient at the 5% level.

Figure 2

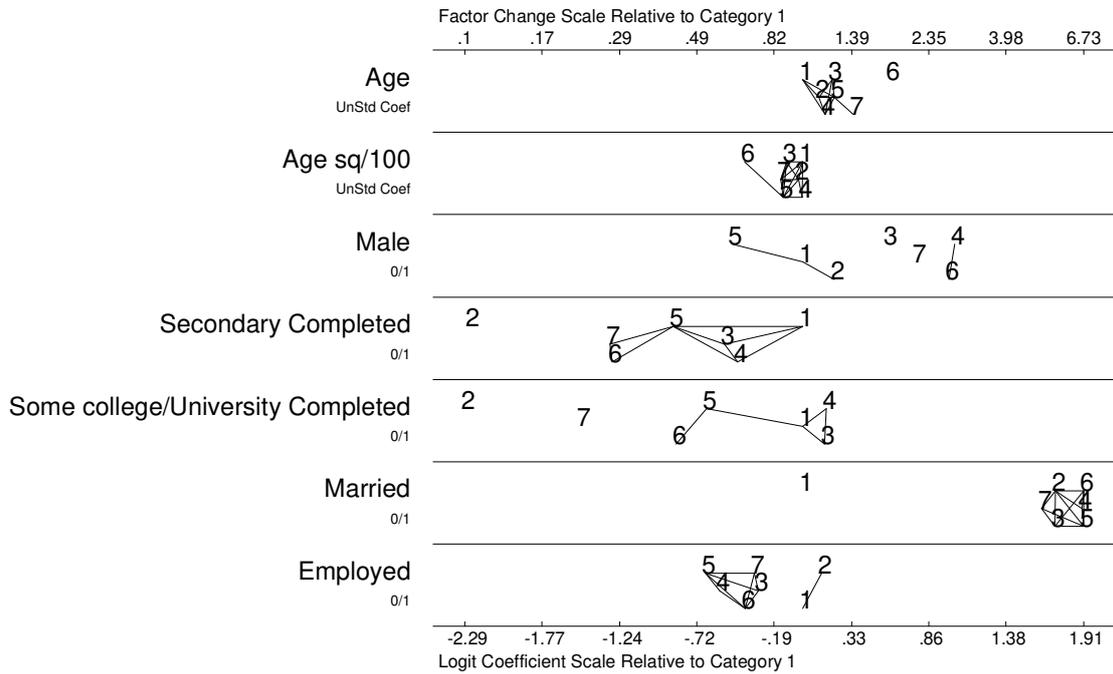
(Dep. Var.: Languages and Continent)



Notes: This corresponds to column (4) of Table 7. Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Portugal 2001, United States 2000, UK 1991 and Venezuela 2001. We have incorporated year fixed effects. The dependent variable is a combination of the location of the destination country and the official language or the most common language. This location is classified in the following categories: Europe and America. The language classification is as follows: English, Spanish, and Others. Robust standard errors. The numbers correspond to the outcome categories: 1 indicates Europe(English), 2 is America (English), 3 is Europe (Others), 4 corresponds to America (Others), 5 means America (Spanish). The additive scale on the bottom axis measures the value of $\beta_{i,m|n} \delta$. The multiplicative scale on the top axis measures $\exp(\beta_{i,m|n})\delta$. Estimates are weighted. Robust standard errors. The statistical significance is shown by drawing a line between categories for which there is no significant coefficient at the 5% level.

Figure 3

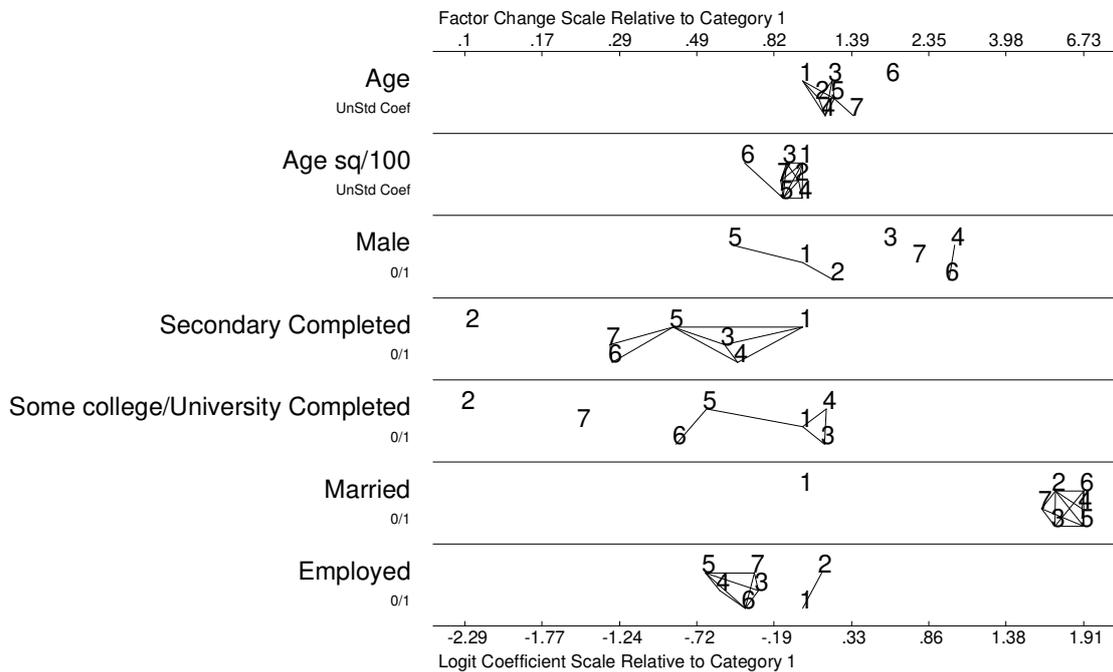
(Dep. Var.: Languages, Unemployment level, and Continent)



Notes: This corresponds to column (4) of Table 10. Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, France 2006, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Portugal 2001, United States 2000, UK 1991 and Venezuela 2001. We have incorporated year fixed effects. The dependent variable is a combination of the location of the destination country, the official language or the most common language and the unemployment rate. This location is classified in the following categories: Europe and America. The language classification is as follows: English, Spanish, and Others. The unemployment rate is divided in two categories: above the average unemployment rate and below the average unemployment rate. The numbers correspond to the outcome categories: 1 indicates Europe, unemployment rate under the average and English as the most common language, 2 is Europe, unemployment rate below the average and Others as the most common language, 3 is America, unemployment rate below the average and English as the most common language, 4 corresponds to America, unemployment rate below the average and Spanish as the most common language, 5 means Europe, unemployment rate above the average and Others as the most common language, 6 is America, unemployment rate above the average and Others as the most common language, and 7 represents America, unemployment rate above the average and Spanish as the most common language. The additive scale on the bottom axis measures the value of $\beta_{i,m|n} \delta$. The multiplicative scale on the top axis measures $\exp(\beta_{i,m|n} \delta)$. Estimates are weighted. Robust standard errors. The statistical significance is shown by drawing a line between categories for which there is no significant coefficient at the 5% level.

Figure 4

(Dep. Var.: Languages, Unemployment level, and Continent)



Notes: This corresponds to column (4) of Table 10. Sample consists of Spanish emigrants in Argentina 2001, Austria 2001, Bolivia 2001, Brazil 2000, Chile 2002, Colombia 2005, Costa Rica 2000, Cuba 2002, El Salvador 2007, Greece 2001, Ireland 2002, Mexico 2000, Nicaragua 2005, Panama 2000, Peru 2007, Portugal 2001, United States 2000, UK 1991 and Venezuela 2001. We have incorporated year fixed effects. The dependent variable is a combination of the location of the destination countries, the official language or the most common language and the unemployment rate. This location is classified in the following categories: Europe and America. The language classification is as follows: English, Spanish and Others. The unemployment rate is divided in two categories: above the average unemployment rate and below the average unemployment rate. The numbers correspond to the outcome categories: 1 indicates Europe, unemployment rate below the average and English as the most common language, 2 is Europe, unemployment rate below the average and Others as the most common language, 3 is America, unemployment rate below the average and English as the most common language, 4 corresponds to America, unemployment rate below the average and Spanish as the most common language, 5 means Europe, unemployment rate above the average and Others as the most common language, 6 is America, unemployment rate above the average and Others as the most common language, and 7 represents America, unemployment rate above the average and Spanish as the most common language. The additive scale on the bottom axis measures the value of $\beta_{i,m|n} \delta$. The multiplicative scale on the top axis measures $\exp(\beta_{i,m|n} \delta)$. Estimates are weighted. Robust standard errors. The statistical significance is shown by drawing a line between categories for which there is no significant coefficient at the 5% level.