DISCUSSION PAPER SERIES

IZA DP No. 6543

Wage And Occupational Assimilation by Skill Level

Miguel Angel Alcobendas
Núria Rodríguez-Planas
Raquel Vegas

May 2012

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

Wage and Occupational Assimilation by Skill Level

Miguel Angel Alcobendas
Universitat Autònoma de Barcelona

Núria Rodríguez-Planas
IZA and IAE-CSIC

Raquel Vegas
CEMFI

Discussion Paper No. 6543
May 2012

IZA

P.O. Box 7240
53072 Bonn
Germany

Phone: +49-228-3894-0
Fax: +49-228-3894-180
E-mail: iza@iza.org

IZA Discussion Paper No. 6543
May 2012

ABSTRACT

Wage and Occupational Assimilation by Skill Level

While much of the literature on immigrants' assimilation has focused on countries with a large tradition of receiving immigrants and with flexible labor markets, very little is known on how immigrants adjust to other types of host economies. With its severe dual labor market, and an unprecedented immigration boom, Spain presents a quite unique experience to analyze immigrations' assimilation process. Using alternative datasets and methodologies, this paper provides evidence of a differential assimilation pattern for low- versus high-skilled immigrants in Spain: our key finding is that having a high-school degree does *not* give immigrants an advantage in terms occupational or wage assimilation (relative to their native counterparts).

JEL Classification: J15, J24, J61, J62

Keywords: wage assimilation, occupational assimilation, education

Corresponding author:

Núria Rodríguez-Planas
Visiting Research Fellow
IZA
P.O. Box 7240
53072 Bonn
Germany
E-mail: rodriguez-planas@iza.org

I. Introduction

Much of the literature on immigrants' assimilation has focused on countries with a long tradition of receiving immigrants.[1] Most of these studies find that after an initial adaptation period, immigrants' earnings converge towards those of natives. What is still an open debate in this literature is whether and to what extent full-convergence takes place. In contrast, not much is known on how immigrants adjust to an economy with little experience as a host country. Understanding immigrants' assimilation process in such circumstances can be of most policy relevance, especially in the midst of the new immigration flows towards countries other than the most traditional countries of immigrants.[2]

The contribution of this paper is twofold. First, using cross-sectional Labor Force Survey data and a synthetic cohort analysis we analyze the occupational assimilation of immigrants in Spain *after* the recent massive inflow of immigrants, which mainly occur after the turn of the century. We find that upon arrival all immigrants--including those with a college degree--are over-represented in the "non-qualified" category, which includes jobs such as, janitors, entry position in construction work, non-qualified laborers, among others. After 3 to 4 years after arrival, immigrants begin to shift out of "non-qualified" jobs towards "qualified blue-collar" occupations (for males) and "white-collar" occupations (for females). However, we find that having a high-school degree does *not* give immigrants an advantage in terms of which occupations they work upon arrival or later on (relative to their native counterparts).

Two concerns emerge with our Labor Force Survey analysis. First, due to the cross-sectional nature of this dataset, synthetic cohort assimilation estimates may be biased if the quality of the different cohorts of immigrants changes over time or if there is selective permanent out-migration and selective back-and-forth migration between the immigrants' host and home country—Edin *et al.*, 2000; and Lubotsky, 2007. Moreover, as wages are not available in the Spanish dataset wage assimilation cannot be estimated. While occupational assimilation is interesting per se, it is not as standard in the literature as wage assimilation. Thus, it would be interesting to explore whether the

[1] Countries with a long tradition of receiving immigrants include: Australia (Chiswick and Miller, 1995); Canada (Baker and Benjamin, 1994; and Hum and Simpson, 2000, 2004); Germany (Schmidt, 1992; and Constant and Massey, 2005); Israel (Flug, *et al.*, 1992; Friedberg, 2001; and Eckstein and Weiss, 2004, among others); and the United States (see Card, 2005 for literature review).

[2] On the one hand, Southern European countries have recently experienced a preponderance of migrants in their territory (Reher and Silvestre, 2009, among others). On the other hand, there is also evidence of new immigration flows towards the fast growing developing economies. According to Ratha and Shaw, 2007, South-South migration accounts for half of all migration from the South.

earlier results suggesting that a high-school degree does not do much in terms migrants' occupational assimilation also hold when, instead of occupational assimilation, we study wage assimilation. To address both concerns, we use an alternative longitudinal data set from Social Security records and analyze immigrants' wage assimilation (relative to similar natives) by skill-level.

We find that, upon arrival, the wage differential is larger the *higher* the skill-level required for a job. For example, we observe that, at arrival, low-skilled immigrants earn 24 percentage points lower wages than their native counterparts. In contrast, medium- and high-skilled immigrants earn 36 and 41 percentage points *lower* wages than their native counterparts, respectively. Second, we find that although wage assimilation (compared to similar natives) is largest for immigrants in jobs requiring a college degree, there is practically no difference in wage assimilation between immigrants in jobs requiring a high-school degree and those that do not. Third, we find that 10 years upon entry the formal labor market, full assimilation of wages does not take place as a 12 percentage points wage differential remains for workers in jobs requiring no degree, 22 percentage points remains for workers in jobs requiring a high-school degree and 14 percentage points remain for workers in jobs requiring a college degree.

These results contrasts with those typically found in countries with a long tradition of having immigrants and more flexible economies where the migrant-native wage gap is smallest for the highest skilled worker upon arrival and convergence increases with immigrants' educational level. Similarly, studies analyzing the occupational adaptation of immigrants usually finds that assimilation is directly related with immigrants' skill level—see, Boyd, 1985; Borjas, 1992; and Green, 1999; Wanner, 2003; Card, 2005; and Toussaint-Comeau, 2006.[3]

A related issue in this literature is the imperfect portability of human capital (acquired abroad) and the relevance of the national origin of an individual's education and experience in determining the individual's value in the labor market—Friedberg, 2000; Wanner and Ambrose, 2003; Özden and Neagu, 2007, and Sanromá *et al.*, 2009. Although it would be interesting to differentiate our analysis by whether the education

[3] Amuedo-Dorantes and de la Rica, 2007, were the first ones to study the occupational assimilation process of the immigrants in Spain using 2001 decennial Population Census data. Because their analysis focuses on immigrants who arrived during the second half of the 1990s, it misses most of the massive recent inflow of immigrants, which occurred after the turn of the century. As we explain later, because the ethnic composition of immigrants has shifted drastically over the last decade in Spain, their findings are not necessarily transferable to the current situation.

has been acquired abroad or in the host country (as in Wanner and Ambrose, 2003; and Özden and Neagu, 2007), we are unable to do so due to sample size limitations as very few immigrants have acquired formal education in the host country. This is due to the particularities of the Spanish immigration boom, which—with its promptness and intensity—implied that most immigrants who have arrived to Spain did so to work. As such, Sanromá *et al.*, 2009, estimate that immigrants in Spain acquire the bulk of their human capital in their home country (10.95 of their 11.1 years of education, on average, corresponds to their home country), and they find that only 5.5% of immigrants get some schooling in Spain.[4]

It is important to note that we are not the first to find evidence that in Spain the recent wave of immigrants has suffered from over-education. For instance, using cross-sectional data from the 1996 to 2005 Spanish Labor Force Survey, Fernandez and Ortega, 2008, find that although the Spanish labor market is able to absorb immigrants within 5 years after arrival, it does so at the expense of allocating them in fixed-term contract jobs for which they are overqualified. Similarly, Sanromá *et al.*, 2008, find that non-EU15 immigrants in Spain suffer over-education, in both incidence and intensity, and that the process of assimilation is very low. Sanromá *et al.*, 2009, also find that the marginal returns to a year of schooling in Spain (3.3 percent) are higher than the marginal returns to a year of foreign schooling (1.8 percent)--the difference between the two coefficients is statistically significant at 5 percent. According to these authors, the lower return to foreign formal education indicates that home country schooling have limited transferability to the Spanish labor market. Using panel data from Social Security records, Izquierdo *et al.*, 2009, find that, despite a sizeable and significant wage gap reduction between legal immigrant men working in wage and salary jobs in the formal sector and their native counterparts within the 5 years after arrival to Spain, full assimilation of wages does not take place as a 15 percentage points wage differential remains. The novelty of our paper is that by doing the analysis by skill level an interesting new insight emerges, namely that having a high-school degree does *not* give immigrants an advantage in terms occupational or wage assimilation (relative to their native counterparts).

The structure of our paper is as follows. Sections 2 and 3 present findings from the occupational and wage assimilation, respectively. Section 4 concludes.

[4] Unfortunately our data do not identify in which country the educational degree was obtained, precluding us from such type of analysis.

II. Occupational Assimilation Analysis by Skill Level

Labor Force Survey

Our analysis is mainly based on data from second quarter of the Spanish Labor Force Survey (LFS) from the years 2000 to 2008.[5] The Spanish LFS gathers information on demographic characteristics (such as, age, years of education, marital status, and region of residence), and employment characteristics (such as work status, occupation, and industry). Unfortunately, no information on earnings is available in the Spanish Labor Force Survey. In addition, for immigrants—defined as foreign-born workers who do not have the Spanish nationality, the LFS collects information on the number of years of residence in Spain and the country of birth.

Our analysis focuses on individuals between 19 and 65 years old. We exclude older individuals to avoid complications involving retirement decisions. We exclude younger individuals because we want to focus on individuals who are likely headed for the labor force in the near future and to avoid issues of non-comparability of the experiences of young immigrants who received part of their basic education in Spain and those who arrived at older ages.[6] In addition, the immigrant samples are restricted to those entering in 1990 and after because the vast majority of immigrant flows has taken place from the late nineties onwards.[7]

One of the strength of the LFS is that it is supposed to include both legal and illegal immigrants, in contrast with alternative datasets that *only* cover legal ones, such as the data from data from Social Security Records or the Wage Survey Structure. That said, the potential under-reporting of illegal immigrants is likely (as the LFS is voluntary, in contrast with the Census, which is mandatory) especially before an amnesty. Similarly, return migration related (or not) to an amnesty may also be worrisome, as both return migration and under-reporting of immigrants may generate deterministic biases in our analysis. Sensitivity analysis suggest that amnesties ought not to be a major concern in

[5] As is common practice in the research using this dataset, we only use the second quarter to avoid repeated observations. The LFS is carried out every quarter on a sample of around 60,000 households. Each quarter, one sixth of the sample is renewed. However, the dataset does not include a variable that allows identification of individuals along the six consecutive interviews.

[6] This restriction criteria is common in the literature, see Boyd, 1985; Kossoudji, 1989; and Green, 1999, among others.

[7] Again this is a common restriction in the Spanish literature, see Amuedo-Dorantes and de la Rica, 2007, and Gonzalez and Ortega, 2008, among others.

our analysis—similar results are found by Amuedo-Dorantes and de la Rica, 2007; and Fernandez and Ortega, 2008.[8]

Descriptive Statistics

Appendix Tables A.1 through A.2 display personal and demographic descriptive statistics for natives and immigrants for each of the LFS years and by gender (descriptive statistics by continent of origin, and cohort of arrival are available from the author upon request). We observe that there are education differences across naives and immigrants.[9] Within the native population, there has clearly been an increase of workers' investment in human capital, as the fraction of natives with a college degree, vocational training, or a high-school diploma has increased over time. Although a similar trend is observed for immigrants with less than a college degree, the share of immigrants with a college degree has decreased over-time. Comparing immigrants and natives in our sample, we observe that immigrants are slightly more educated than natives (especially in the earlier surveys).[10] Finally, it is noteworthy to highlight the change in the continent of origin of immigrants over the last decade. While in the early 2000s, almost one third of immigrant men came from the EU-15, and Africa, and one fourth came from Latin America; by the 2008 LFS, the weight of immigrants from EU-15 and Africa has been reduced drastically, representing only 10% and 20%, respectively, and giving room to a large inflow of immigrants from Latin America (40%) and Eastern Europeans (23%). A similar pattern of increased importance of immigrants from Latin America and Eastern Europe in the latter years is also observed among immigrant women, although those coming from Latin America were already the largest share at the beginning of the century.

Appendix Tables A.3 to A.6 present the occupational distributions at each LFS for the native born and immigrants from each of the entering cohorts and by gender. The occupations are grouped into five categories as follows: "Professionals", which include managers, engineers, social scientists, teachers, health occupations, and arts; "Other white-collar" occupations, which include clerical, sales, and service occupations;

[8] Results available from the author upon request.

[9] Throughout the analysis in this section we consider four education levels: high-school dropouts; individuals with a high-school degree; individuals with some college education (including those with a short college degree) or vocational training (they may have a trade certificate, but no college degree); and individuals with a completed college degree. As the assimilation pattern between those with and without vocational training is very similar, when we move to the analysis with administrative data we work with three categories: high-school dropouts, high-school degree and college degree.

[10] We are not the first ones to find that the level of education of immigrants is not that different from that of natives (Dolado and Vázquez, 2007; and Amuedo-Dorantes and De la Rica, 2007).

"Qualified blue-collar" occupations, which cover qualified workers in agriculture and the fishing industry, handcraft workers, mining and construction technical workers; "Non-qualified" occupations, which include jobs such as janitors, or non qualified laborers; and "Not working", which includes both the unemployed and persons out of the labor force. By including the latter category, we are capturing the participation decision. Moreover, this category is an important part of immigrant adaptation and will likely vary between immigrants and native born.

Note first that we observe a diverging occupational pattern, with natives moving into the "professional" category, and foreign-born individuals moving into the "blue-collar" category (for men) and "other white-collar" category (for women). Second, there is clearly a greater fluidity of the immigrant distribution relative to that of the natives, as several cohorts of immigrants experience changes within an occupational category of up to 33 percentage points over the decade.

Empirical Strategy

In this section, we estimate for each of the LFS a cross-sectional multinomial logit (MNL) model of occupational selection separately over each of the immigrant and native-born samples.[11] We ran separate MNL for immigrants and natives because many studies have pointed out the importance of taking into account differences between immigrants and natives in their returns to human capital, and labor market experience (Friedberg, 2000; and Fernández and Ortega, 2009).

The MNL model permits estimation of the effects of various characteristics of an individual on his choice from among a set of alternatives that do not have a natural ordering, occupations in this case. The occupational choices are the five choices described above, namely "Not working", and "Non-qualified", "Qualified blue-collar", "Other white-collar" and "Professional" occupations. Notice that the MNL approach is not uncommon when analyzing a model of occupational choice (see Green, 1999, Weiss *et al.*, 2003; Wanner and Ambrose, 2003; among others).

The MNL for the immigrant sample can be rationalized using an index model in which the value of a particular occupational choice is represented by:

$$I_{cti}^{j} = X_{cti}\beta_{ct}^{j} + \varepsilon_{cti}^{j} \qquad (1)$$

[11] The relative risk ratios for two separate MNL (one for immigrants and one for natives) are available in the Appendix A.1.

where *j* indexes the alternative, *c* indexes the years-since-arrival to the host country by the immigrant, *t* indexes the LFS year, and *i* indexes the individual, X_{cti} is a vector of person-specific characteristics, β_{ct}^{j} is a parameter vector that varies by alternative and LFS year, ε_{cti}^{j} is an error term. The probability that individual *i* who arrived *c* years ago chooses alternative *j* in period *t* is the probability that $I_{cti}^{j} > I_{cti}^{k}$ for all $k \neq j$.

Assuming ε_{cti}^{j} follows an independent extreme value distribution, the resulting specification for the choice probabilities will be a MNL model with years-since-arrival dummies and LFS-year dummies. Estimating the following equation for immigrants,

$$\Pr(y_{cti} = j) = \frac{\exp\left(X_{cti}\beta_j\right)}{1 + \sum_{k=1}^{J} \exp\left(X_{cti}\beta_k\right)} \qquad (2)$$

for the reference category,

$$\Pr(y_{cti} = 1) = \frac{1}{1 + \sum_{k=1}^{J} \exp\left(X_{cti}\beta_k\right)}$$

we obtain estimates of the fitted probabilities of choosing alternative *j* for immigrants:

$$P_{cti}^{j} = \frac{\exp\left(X_{cti}\hat{\beta}_j\right)}{1 + \sum_{k=1}^{J} \exp\left(X_{cti}\hat{\beta}_k\right)} \qquad (3)$$

For native-born individuals, a similar index model is used but omitting the region of birth dummy variables and years-since-arrival dummy variables. Estimating the following equations for native-born individuals,

$$\Pr(y_{ti} = j) = \frac{\exp\left(X_{ti}\beta_j\right)}{1 + \sum_{k=1}^{J} \exp\left(X_{ti}\beta_k\right)} \qquad (4)$$

we obtain estimates of the fitted probabilities of choosing alternative *j* for natives:

$$Q_{ti}^{j} = \frac{\exp\left(X_{ti}\hat{\beta}_j\right)}{1 + \sum_{k=1}^{J} \exp\left(X_{ti}\hat{\beta}_k\right)} \qquad (5)$$

The variables used to explain choices among these alternatives include sex, age, education, marital status, region dummies, and province unemployment rate. In addition, a set of location dummy variables are included because immigrants tend to exhibit different location patterns from the native born. For immigrants, a second set of variables is also used. These include: (1) a set of dummy variables corresponding to the

region of birth to pick up differences in assimilation that might be related to regional characteristics, and (2) years-since-arrival dummy variables. In all regressions, we use sampling weights. Coefficients can be found in Appendix Table A.7.

Comparison of the fitted probabilities between a representative immigrant (equation 3) and a representative national (equation 5) with similar observable characteristics of choosing alternative *j* at a given LFS survey year *t*—as reflected by equation 6 below—, provides cross-section estimates of the assimilation process.

$$P_{cti}^{j} - Q_{ti}^{j} \qquad (6)$$

To isolate the net assimilation effect, we shall compare the same cohort across LFS years (using again the native born as a comparison group to eliminate the effects due to changes in the economy)—this is what Borjas, 1985, calls the "within-cohort" effect. Comparing the fitted probabilities of choosing alternative *j* for a representative immigrant who arrived *c* years ago during the LFS year *t* and the fitted probabilities of choosing alternative *j* for that same type of immigrant *k* years later, would give us: [12]

$$P_{(c+k),(t+k)}^{j} - P_{c,t}^{j} \qquad (7)$$

We use the changes observed in the fitted probabilities experienced by a representative native over the same time period to control for changes related to the other social and economic that affect all individuals in the country over time:

$$Q_{(t+k)}^{j} - Q_{t}^{j} \qquad (8)$$

Substracting (8) to (7) we obtain an estimate of the "within-cohort" effect:

$$\left(P_{(c+k),(t+k)}^{j} - P_{c,t}^{j}\right) - \left(Q_{(t+k)}^{j} - Q_{t}^{j}\right) \qquad (9)$$

which is an estimate of the net assimilation effect, assuming that immigrants and natives experience change in the economy in the same way.

Results

Below we address the following question: For a given cohort, how does the occupational distribution change with time since arrival in Spain? In essence, this is equivalent to analyze the net assimilation effect, which compares the changes over time for a given immigrant (synthetic) cohort to the changes for comparable natives. Figure

[12] To simplify notation, we no longer write the "i" subindex. However, we are evaluating the probabilities at the same values of the regressors.

1 plots equation (9) for t=2002 and k=0 through 6.[13] Figure 1 shows estimates for males by education level. Appendix Figure A.1 shows similar estimates for females.[14]

A positive estimate implies that there is an over-representation for a particular cohort of immigrants in a given occupation category compared to that same cohort *k* years earlier (net of the changes that have occurred within that same period among the natives). For instance, in the top LHS panel of Figure 1, the sixth bar height in the "blue-collar" category indicates that immigrant men without a high-school degree who arrived in Spain in 2002 are 13 percentage points more likely to hold a job in a "qualified blue-collar" occupation in 2008 than in 2002 when they first arrived, relative to the change observed over the same period in the same occupational category among their natives counterparts. The findings are summarized below.

For immigrant men without a high-school degree, the patterns observed in the "non-qualified" and "qualified blue-collar" categories in the top LHS chart of Figure 1 suggest an assimilation effect as recently arrived immigrants adjust to the new economy. Within the first few years after arrival, immigrants without a high-school degree first move from "not working" to "non-qualified" jobs (as shown by the positive estimates for the "non-qualified" category and the negative estimates for the "non-working" category). However, after 3 to 4 years after arrival, they begin to shift out of "non-qualified" jobs towards "qualified blue-collar" occupations.

A very similar assimilation pattern is observed for male workers with a high-school degree (as shown in the top RHS chart of Figure 1). The differences across these two education groups are practically inexistent, suggesting that having a high-school degree does not give immigrants an advantage in terms of the process of assimilation in Spain nor the occupations where they end up working in.[15]

The assimilation pattern of low-skilled female immigrants--shown in the Appendix--is similar to that of men as they also move from the "not working" categories into the "non-qualified" category during the first years after arrival. And we also observe some "catching up" into the "other white-collar" category for these women.

[13] As a reference, the fitted probabilities for natives are displayed in Appendix tables A.2 and A.3

[14] For native-born individuals, the person is living in Madrid, aged 35 to 39 years old, currently married. For immigrants, that person is from Latin America and arrived in Spain in 2002

[15] While high-school dropout natives have a fitted probability of being in either category of about 8% and 9%, respectively; for high-school graduates these fitted probabilities increase to 13% and 16%, respectively.

Moving now to higher-skill workers, it comes as a surprise that the pattern of occupational assimilation of immigrant men with vocational training is strikingly similar to the pattern observed for immigrant men with no high-school degree--shown in the bottom LHS panel of Figure 1. Immigrant men with vocational training shift into "non-qualified" occupations during the first couple of years after arrival, and it is not until the third year after arrival that they move into "qualified blue-collar" occupations. A similar pattern is observed for immigrant men with a college degree, although their speed of assimilation towards "qualified blue-collar" jobs takes place right at arrival and is faster as time in the host country increases.[16]

For immigrant women having a vocational degree or a university degree seems to help in that some assimilation towards the "other-white collar" occupations seems to take place 3 years after arrival. However, the persistent large flows out of "non work" into "non-qualified" occupations (even after 5 years in the host country) reflects that many of these low-skilled immigrant women are relegated to domestic services or nursing-home care (Farré *et al.*, 2009)

There are very few differences in the assimilation process of Latin American and Eastern Europeans immigrants (male estimates shown in the Appendix, female estimates available from authors upon request), suggesting that language has little effect in terms of speeding assimilations. Perhaps worth highlighting is that African high-school dropouts' shift out of the "non-qualified" category and into the "qualified blue-collar" category takes longer than that observed for other immigrants without a college degree.

Caveats from our Labor Force Survey Analysis

At least two concerns emerge. First, our estimates may be biased due to the cross-sectional nature of our data. As explained earlier, estimates from cross-sectional data may be biased if the quality of the different cohorts of immigrants changes over time. Even if the quality of the different cohorts does not change, synthetic cohort estimates may be biased if there is selective permanent out-migration and selective back-and-forth migration between the immigrants' host and home country. For example, several authors have found that a failure to adjust for emigration leads to an overestimation of the wage assimilation among migrants who actually remain in the country as the low-earnings immigrants are more likely to emigrate than high-earning ones—Edin *et al.*,

[16] Notice that the flow out of the "professional" category reflects natives moving in towards that category over time.

2000; and Lubotsky, 2007. Although Constant and Massey, 2002, and Izquierdo et al., 2009, do not find evidence that cross-sectional data overestimates wage assimilation in Germany and Spain, respectively.

Second, occupational assimilation is not as standard in the literature as wage assimilation. Thus, it would be interesting to explore whether the earlier results suggesting that a high-school degree does not do much in terms migrants' occupational assimilation also holds when instead of occupational assimilation we study wage assimilation. In the next section we explore this. Namely, we use longitudinal Social Security data and analyze wage assimilation between immigrants and similar natives by skill-level.

IV. Wage Assimilation Analysis by Skill Level

The CSWH Data

We use data from the 2008 wave of the Continuous Sample of Working Histories (hereafter CSWH), which is a 4 percent non-stratified random sample of the population registered with the Social Security Administration in 2008. The CSWH provides information on worker's socio-demographic characteristics such as sex, nationality, and province of residence; and worker's job information, such as, education level required for a given job, the dates the employment spell started and ended, the number of days per month worked, and monthly earnings.

We follow Izquierdo *et al.*, 2009, and restrict our sample to wage and salary workers who work full-time. As these authors do, we focus on men because we are concerned of potential sample selection bias among (native) women as they are more likely to move in and out of the labor market, and therefore may be lost in the CSWH.[17] An immigrants is a person who does not have Spanish nationality. The paper uses daily wages that are computed as the ratio between monthly earnings and the days worked in a particular month.

Experience is measured as years after the first entry in the labor market. We also estimate potential experience abroad for immigrants by removing from the age of entry in Spain, the potential age of entry in the labor market in the origin country, where potential age of entry in the labor market in the country of origin is 16 if the

[17] Spanish female participation is in the order of 65 percent but drops to 15-20 percent after the birth of the first child. In contrast with other countries, this low participation rate among Spanish mothers does not increase as the youngest child ages (Nollenberger and Rodríguez-Planas, 2012).

person does not have a university degree and 22 if the person has a university degree. For natives, the age of entry in Spain is the age of the person at the moment of the first Social Security contribution.

The only variable recording education in the CSWH comes from the Spanish Municipal Registry of Inhabitants and was last updated in 1996, which leads to important underestimates of true education—especially for natives relative to immigrants as the latter are much more likely to have registered their education in a later date. Because of this we use the CSWH's own classification of skills required to perform their job--assuming that if the immigrant (or native) has a job requiring a college degree, the employer has recognized such degree. Thus, the analysis is done separately for three different sub-populations: (1) those working in low-skilled jobs (not requiring a high-school degree); (2) those working in medium-skilled jobs (requiring a high-school degree); and (3) those working in high-skilled jobs (requiring a university degree).

The major difference between this dataset and the Labor Force Survey is that now only individuals working in the formal sector and for a wage and salary job are included in the analysis.

Empirical Strategy

Our empirical strategy follows closely that of Lubotsky, 2007 and Izquierdo *et al.*, 2009. We estimate the following equation using the longitudinal dataset:

$$\ln W_{it} = \alpha_0 + \sum_{k=1}^{T} \alpha_k 1(\exp_{it} = k) + \beta_0 I_i + \sum_{k=1}^{T-1} \gamma_k I_i 1(\exp\_abroad_{it} = k) + \sum_{k=1^a}^{T} \varphi_k I_i 1(ysm_{it} = k) + \mu_t + \varepsilon_{it} \quad (10)$$

where W_{it} is individual *i* daily wage at time *t*, $\exp_{it}$ and $\exp\_abroad_{it}$ represent the individual's experience acquired in Spain and abroad, respectively. I_i is a dummy equal 1 if the individual is an immigrant and 0 otherwise, and ysm_{it} capture the years since the immigrant migrated to Spain. μ_t and ε_{it} are time-dependent shocks and time-individual shocks. If $\varphi_k > 0$ the difference between natives' and immigrants' returns to experience acquired in Spain decreases with immigrants' time in Spain, and thus wage convergence takes place.

Identification of equation (10) is not possible because of confounding effects between experience (which is much correlated with age), birth cohorts and time effects (Deaton and Paxson, 1994). As is common in this literature, we restrict time-dependent

shocks to be identical to the NAIRU (see Beaudry and Lemieux, 1999, and Izquierdo *et al*., 2009).

Because the observed value of earnings is top-coded and the censored part is around 15 to 20 percent in the whole sampling period, we use median regressions for the dependent variable, being $\overline{\ln W_{it}}$ the salary cap:

$$\ln W_{it}^{*} = \min\left(\ln W_{it} - \overline{\ln W_{it}}\right)$$

As in Lubotsky, 2007, we use Powell, 1984, semi-parametric censored least absolute deviation. We compute the standard deviation with a sandwich estimator (Koenker and Basset, 1978).

Descriptive Statistics

Table 1 shows unconditional median daily wage differentials between migrants and natives by skill level as a function of the time spent in Spain by migrants. Since the average migrant entered in Spain at age 25 to 30 years old and with 12 years of experience, a comparable native at t = 0 is someone with 12 years of experience. We choose the generation of natives who entered the Social Security records between 1979 and 1982 to have a relatively long labor market history to look at. Focusing first on natives, we observe that there are returns to education at labor market entry. For instance, when they first enter the labor market natives working in jobs requiring no high-school degree earn 15 percent lower wages than those working in jobs requiring a high-school degree, and these workers earn 19 percent less than those working in jobs requiring a college degree. Moreover, natives' returns to education grow faster the higher their human capital. Natives working in jobs requiring no degree see their wages increase by 21 percent over a decade, compared to the 36 percent increase experienced by those in jobs requiring a high-school degree, or the 51 percent increase experienced by those in jobs requiring a college degree.

Focusing now on the wage penalty immigrants face at arrival (relative to similar natives), we observe that the initial penalty that migrants face *increases* with skill level. Estimates from column 3 reveal that while low-skilled migrants arriving in the 1991-1995 earn 35 percent lower wages than similar natives at arrival, medium- and high-skilled migrants earn 39 and 41 percent lower wages than their native counterparts, respectively. Similar findings emerge for the cohort of migrants arriving in the 2001-

2005 period. At arrival, low-skilled migrants earn 27 percent lower wages than similar natives, while medium- and high-skilled migrants earn 36 and 47 percent lower wages than their native counterparts. Moreover, estimates from Table 1 also reveal that the immigrant wage penalty only decreases over time for low skill migrants. In contrast, it increases with time in Spain for medium- and high-skilled migrants. For instance among high-skilled migrants arriving in the 1991-1995 period see their median wage penalty increased from 41 percent in 1991 to 50 percent ten year later.

Results

Table 2 presents estimates from equation (10) for the three different groups of workers, based on their skill level. The immigrant dummy shows the wage differential between immigrants and their native counterparts at arrival. Upon arrival, we observe that the wage differential is larger the *higher* the skill-level required for a job. For example, we observe that, at arrival, low-skilled immigrants earn 24 percentage points lower wages than their native counterparts. In contrast, medium- and high-skilled immigrants earn 36 and 41 percentage points *lower* wages than their native counterparts, respectively.

The coefficients from the "years since arrival" dummies show how the immigrant-natives wage differential decreases over time. After 10 years in the country, the wage gap has narrowed by 12 percentage points for low-skilled workers and 14 percentage points for medium-skilled workers. While there is practically no difference in wage assimilation between low- and medium-skilled workers over time, high-skilled workers experience a higher wage convergence as their wage gap narrows 27 percentage points after a decade in the country. In addition, we find that full assimilation does not occur, as in Izquierdo *et al.*, 2009, as a 12 percentage points wage differential remains for workers in jobs requiring no degree, 22 percentage points remains for workers in jobs requiring a high-school degree and 14 percentage points remain for workers in jobs requiring a college degree. After the first ten years in the country, the coefficients on the "years since migration" dummies either remain constant (for high-skilled workers) or begin to decrease (for medium- and low-skilled ones).

The coefficients on the cohort of arrival dummies also reveal an interesting result. There has been a quality upgrade since 1996 among low-skilled immigrant workers, but a quality downgrade among the high-skilled immigrant cohorts arriving from 1991 to 2005 in Spain. No changes in cohort quality are observed among medium-skilled workers, except for the 1991-1995 cohort, which was of higher quality.

Figure 2 plots the immigrants-natives wage differential for a representative cohort of workers born between 1975 and 1984. Immigrants in Figure 2 arrived in Spain between 1996 and 2000 and had less than five years of experience abroad. Figure 2 shows that at arrival high-skilled migrants earn 50 percentage points less than similar natives and that this differential decreases 40 percent to 30 percentage points ten year later. Among medium-skilled workers, the differential upon arrival is 45 percentage points and it decreases 22 percent to 35 percentage points a decade later. Among low-skilled workers, the differential upon arrival is the smallest (21 percentage points) and it drops 33 percent to 14 percentage points ten years later. Thus, although the rate at which the gap narrows is greatest the higher the skilled level, because the wage gap upon arrival is larger the higher the skill required, ten years after arrival lower skilled immigrants are faring relatively better than higher skilled ones when compared to similar natives. Moreover, it is also interesting to note that the rate of convergence is the same for medium- to low-skilled workers, suggesting that having a high-school degree does not buy migrants much in terms of wage assimilation (relative to their native counterparts) in Spain.

VII. Conclusion

Our contribution to this literature is to analyze whether there is occupational and wage assimilation in Spain (relative to similar natives) and how this is related to the immigrants' educational level. Our main finding is that, contrary to findings from countries with a long tradition of receiving immigrants, in Spain having a high-school degree does *not* give immigrants an advantage in terms occupational or wage assimilation (relative to their native counterparts).

Spain is quite a unique experience to analyze such issues as the country experienced an unprecedented immigration boom in a short period of time (most of it within the last decade)—with immigrants representing from 1% of the population in 1990 to 4% in 2000 and to 12% in 2009. Given the impressive inflow of immigrants that Spain has experienced in the last ten years (on average, an annual flow of immigrants of 500,000 per year), the assimilation process of immigrants is an important issue not only for economic, but also for social reasons. The experience of Spain ought to be of interest to policymakers of other Southern European countries that share common cultural affinities (such as, the strong family-orientated values associated with a low degree of individualization—Flaquer, 2000); similar socio-economic

circumstances (such as, rigid labor and financial markets, important underground economy, low productivity growth, and excessive borrowing —Garicano, 2008; and Andrés, 2009); welfare commonalities (such as, the mix of universalistic health-care and education systems with professional pension schemes, the high degree of institutional fragmentation, and the lack of an explicit family policy as evidenced by a very limited number of family-friendly social provisions— Ferrera, 1996; and Guillén, 1997); and a weak governmental capacity to regulate immigrants' inflows—Castles and Miller, 2003; and Solé, 2004).

It is likely that the weak governmental capacity of regulate immigrant inflows combined with the construction, tourism, and personal services growth experienced by Spanish economy in the last decade explains the over-representation of immigrants in low-qualified occupations (regardless of their educational level) and the lack of upward occupational mobility. In addition, the large informal sector, the striking segmentation of the Spanish labor market, the need for certification, the imperfect transferability of human capital acquired abroad, and discrimination are likely to be part of the story to a certain extent. Unfortunately, while a combination of the above explanations may apply, without further data, we cannot differentiate between these explanations and their relative importance.

REFERENCES

Amuedo-Dorantes C., De la Rica S. 2007. "Labor Market Assimilation in Spain." *British Journal of Industrial Relations* 45:2: 0007–1080 pp. 257–284.

Andrés J. 2009. "España y los Desequilibrios Globales", *Libro Electrónico Sociedad Abierta-Fedea: "La Crisis de la Economía Española: lecciones y propuestas"*, 09/02/2009.

Baker, M., and D. Benjamin. 1994. "The Performance of Immigrants in the Canadian Labour Market." *Journal of Labor Economics* 12, 369–405.

Beaudry, P., Lemieux, T., 1999. Evolution of the female labour force participation rate in Canada, 1976–1994. Mimeo Centre Interuniversitaire de Reserche en Analyse des Organisations.

Borjas, G. 1992. "National Origin and the Skills of Immigrants," in George J. Borjas and Richard B. Freeman, eds., *Immigration and the Work Force*, Chicago: The University of Chicago Press.

Boyd, Monica. 1992. "Gender, Visible Minority, and Immigrant Earnings Inequality: Reassessing an Employment Equity Promise," in *Deconstructing a Nation: Immigration, Multiculturalism, and Racism in '90s Canada*, edited by V. Satzewich. Halifax: Fernwood Publishing. Pp. 279-321.

Castles, S., and M. J. Miller 2003 The Age of Migration. International Population Movements in the Modern World. Hampshire and New York: Palgrave.

Card, D. 2005. "Is the New Immigration Really So Bad?" *Economic Journal*, 115.

Chiswick B., P. Miller. 1995. "The Endogeneity Between Language and Earnings: International Analyses." *Journal of Labor Economics*, 13(2):246–288.

Constant, A., Massey, D., 2002. Self-selection, earnings and out-migration: a longitudinal study of immigrants to Germany. Journal of Population Economics 16, 631–653.

Constant A., and D. Massey. 2005. "Labor Market Segmentation and the Earnings of German Guestworkers." *Population Research and Policy Review*, 2005, 24 (6), 5-30.

Dolado, J., and Vázquez P. 2007. "Los Efectos Económicos y las Políticas de la Inmigración: Panorámica y Reflexiones." Fedea Working Paper.

Eckstein, Z and Y. Weiss. 2004. "On the Wage Growth of Immigrants: Israel 1990-2000." *Journal of European Economic Association*, June 2004, pp. 665-695.

Edin, P.A., LaLonde, R., Aslund, O., 2000. Emigration of immigrants and measures of immigrant assimilation: evidence from Sweden. *Swedish Economic Policy Review* 7, 163–204.

Farré L., L. Gonzalez, F. Ortega. 2009. "Immigration, Family Responsibilities and the Labor Supply of Skilled Native Women." Universitat Pompeu Fabra Working Paper No. 1161.

Fernández, C. and C. Ortega. 2008. "Labor market assimilation of immigrants in Spain: Employment at the Expense of Bad Job-Matches?", *Spanish Economic Review*, vol. 10, n. 2, pp. 83-107.

Ferrera, M. 1996. 'The "Southern Model" of Welfare in Social Europe', *Journal of European Social Policy* 6 (1), p. 17-37

Flaquer, L. 2000. "Family Policy and Welfare State in Southern Europe". Institut de Ciències Polítiques I Socials, WP No, 185

Flug, K., N. Kasir; and O. Gur. "The Absorption of Soviet Immigrants into the Labor Market from 1990 Onwards: Aspects of Occupational Substitution and Retention." Bank of Israel Discussion Paper no. 9213. Jerusalem: Central Bank of Israel, April.

Friedberg R. 2000. "You Can't Take it with You? Immigrants Assimilation and the Portability of Human Capital: Evidence from Israel." *Journal of Labor Economics*, 18 (2):221-251.

Friedberg, R. 2001. "The Impact of Mass Migration on the Israeli Labor Market." *The Quarterly Journal of Economics*, CXVI(4), November, pp.1373-1408.

Garicano L. 2008: "La Transición Económica Pendiente", en Expansión el 05-12-2008

González L. and F. Ortega. 2010. "How do very open economies adjust to large immigration flows? Evidence from Spanish regions." *Labour Economics*.

Green D. 1999. "Ìmmigrant Occupational Attainment: Assimilation and Mobility over Time." *Journal of Labor Economics*, vol., 17, no. 11: 49-79.

Guillén, A. 1997. "Welfare State Development in Spain: A Historical and Explanatory Approach" in Mire Florence Conference, *Comparing Social Welfare Systems in Southern Europe* vol. 3/1997. Paris, Mire. p. 67-91

Hum D., and W. Simpson. 2000. "Closing the Gap: ·Economic Assimilation of Canadian Immigrants Reconsidered." *J Int Migr Integr* 1:427–441.

Izquierdo M., Lacuesta A., Vegas R. 2009. "Assimilation of Immigrants in Spain: a Longitudinal Analysis." *Labour Economics*.

Koenker, R., Basset, G., 1978. Asymptotic theory of least absolute error regression. Journal of the American Statistical Association 73, 618–622.

Kossoudji, S. 1989. "Immigrant Worker Assimilation: Is It a Labor Market Phenomenon?" *Journal of Human Resources*, Vol 24, No.3 Summer, pp 494-527

Lubotsky, D., 2007. Chutes or ladders? A longitudinal analysis of immigrant earnings. *Journal of Political Economy*. 115, 820–867.

Nollenberger N., and N. Rodríguez-Planas. 2012 "Childcare, Maternal Employment, and Persistence: A Natural Experiment from Spain." IZA Discussion Paper n. 5888.

Özden Ç, and I. C. Neagu. 2007. "immigrant Women's Participation and Performance in the US Labor Market." In The International Migration of Women, World Bank Research Program on Internation Migration and Development.

Powell, J., 1984. Least absolute deviations estimation for the censored regression model. *Journal of Econometrics* 25, 303–325.

Reher D, and Silvestre, J. 2009. "Internal Migration Patterns of Foreign-Born Immigrants in a Country of Recent Mass-Migration: Evidence from New Micro Data for Spain." *International Migration Review*, Volume 43 Number 4 (Winter 2009):815–849

Ratha, D., and Shaw, W. 2007. "South-South Migration and Remittances." Washington: The World Bank Development Prospects Group.

Sanromá E., R. Ramos, and H. Simó. 2009. "Immigrant Wages in the Spanish Labour Market: Does the Origin of Huma Capital Matter?" IZA Discussion Paper No. 4157.

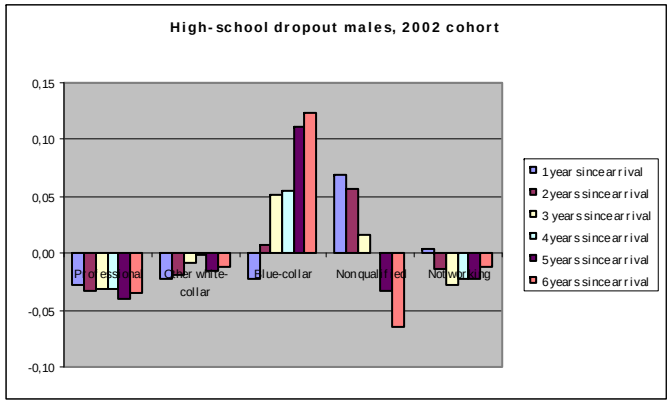
Schmidt, C. 1992. "Country-of-Origin Differences in the Earnings of German Immigrants." Universität München Discussion Paper 92-29.

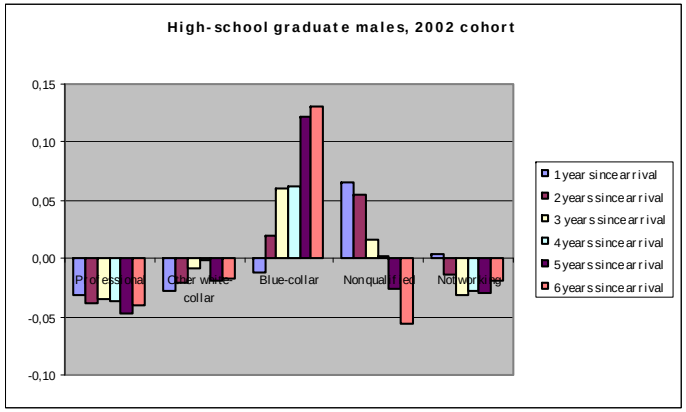
Solé, C. 2004 ''Immigration Policies in Southern Europe.'' *Journal of Ethnic and Migration Studies* 30(6):1209–1221.

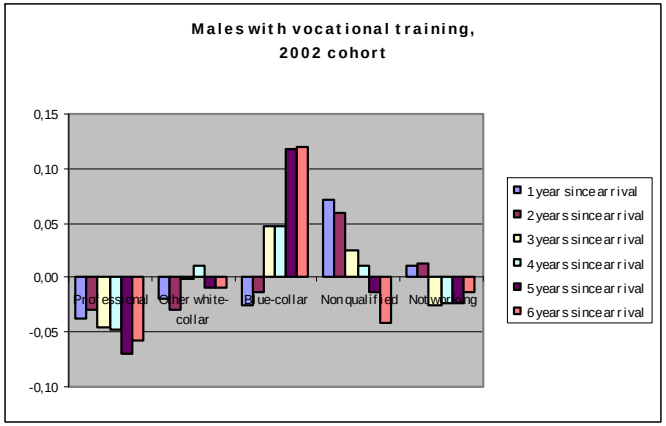
Toussaint-Comean M. 2006. "The Occupational Assimilation of Hispanic Immigrants in the U.S.: Evidence from Panel Data." *International Migration Review*, Vol. 40, Number 3 (Fall): 508-536

Wanner R. and M. Ambrose. 2003. "Trends in the Occupational and Earnings Attainments of Women Immigrants to Canada, 1971-1996." *Canadian Studies in Population*, Vol., 30(2): 355-388.

Figure 1 : Change in Occupational Predicted Probabilities with Time in Spain (Net of Changes Observed in Native Population) Males by Educational Level, LFS 2000-2008







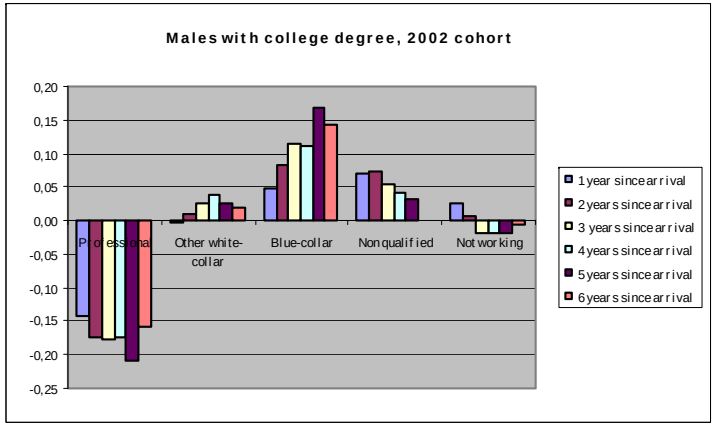


Table 1. Median Wages, Males by Educational Level, 2008 MCVL

High school drop outs

	Spaniards	no UE-15			
	1979-1982	**1991-1995**		**2001-2005**	
	€/day	€/day	Differential	€/day	Differential
0	45,7	29,6	-35,3%	33,4	-26,9%
1	47,6	30,5	-36,0%	34,9	-26,6%
2	48,5	31,1	-35,8%	36,3	-25,2%
3	49,4	31,7	-35,7%	37,0	-25,2%
4	49,4	32,7	-33,8%	38,1	-22,9%
5	50,6	33,7	-33,3%		
6	51,4	35,0	-32,0%		
7	52,3	34,9	-33,3%		
8	53,6	36,0	-32,9%		
9	54,8	37,4	-31,7%		
10	55,3	37,5	-32,2%		

High schol graduates

	Spaniards	no UE-15			
	1979-1982	**1991-1995**		**2001-2005**	
	€/day	€/day	Differential	€/day	Differential
0	52,42	32,0	-38,88%	33,4	-36,19%
1	54,64	31,7	-41,97%	35,4	-35,29%
2	55,97	31,9	-42,98%	37,1	-33,71%
3	57,83	33,1	-42,80%	37,8	-34,60%
4	60,88	35,7	-41,31%	39,2	-35,66%
5	64,58	34,2	-47,03%		
6	65,41	36,4	-44,39%		
7	67,32	35,2	-47,65%		
8	68,95	37,5	-45,61%		
9	69,79	40,0	-42,74%		
10	71,23	38,9	-45,45%		

Table 1. (*Continued*) Median Wages, Males by Educational Level, 2009 MCVL

University degree					
	Spaniards	no UE-15			
	1979-1982	**1991-1995**		**2001-2005**	
	€/day	€/day	Differential	€/day	Differential
0	62,3	36,57	-41,28%	32,8	-47,27%
1	67,2	37,22	-44,63%	35,7	-46,89%
2	75,2	38,48	-48,85%	37,0	-50,79%
3	82,0	31,44	-61,65%	39,1	-52,34%
4	88,0	34,28	-61,03%	42,4	-51,83%
5	88,5	47,51	-46,29%		
6	89,5	43,09	-51,85%		
7	92,1	47,18	-48,75%		
8	95,6	40,86	-57,24%		
9	95,5	42,45	-55,54%		
10	94,2	46,90	-50,21%		

Table 2. Wage Equation Estimations at Percentile 50
Males by Education Level, Longitudinal 2008 MCVL

	High school dropouts	*High school graduates*	*University*
Birth cohort <=1934	0.111***	0.359***	0.039
	(0.031)	(0.050)	(0.030)
Birth cohort 1935-1944	0.171***	0.142***	0.082***
	(0.008)	(0.014)	(0.007)
Birth cohort 1945-1954	0.333***	0.234***	0.177***
	(0.003)	(0.005)	(0.002)
Birth cohort 1955-1964	0.174***	0.084***	0.168***
	(0.002)	(0.003)	(0.001)
Birth cohort 1965-1974	0.046***	0.012***	0.113***
	(0.001)	(0.002)	(0.001)
Nairu	-0.034***	-0.014***	-0.005***
	(0.000)	(0.001)	(0.000)
Total experience	0.067***	0.057***	0.095***
	(0.001)	(0.002)	(0.001)
Total experience2	-0.008***	-0.004***	-0.006***
	(0.000)	(0.000)	(0.000)
Total experience3	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)
Total experience4	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
non EU-15	-0.236***	-0.362***	-0.408***
	(0.019)	(0.053)	(0.022)
Years since migration 1_2	0.046***	0.064***	0.088***
	(0.007)	(0.013)	(0.008)
Years since migration 3_4	0.088***	0.103***	0.152***
	(0.007)	(0.015)	(0.009)
Years since migration 5_6	0.074***	0.097***	0.194***
	(0.009)	(0.018)	(0.011)
Years since migration 7_8	0.109***	0.121***	0.201***
	(0.011)	(0.022)	(0.014)
Years since migration 9_10	0.119***	0.144***	0.271***
	(0.016)	(0.033)	(0.020)
Years since migration 11_12	0.091***	0.111**	0.272***
	(0.022)	(0.048)	(0.026)
More than 13 years since migration	0.058***	0.107**	0.268***
	(0.021)	(0.048)	(0.022)

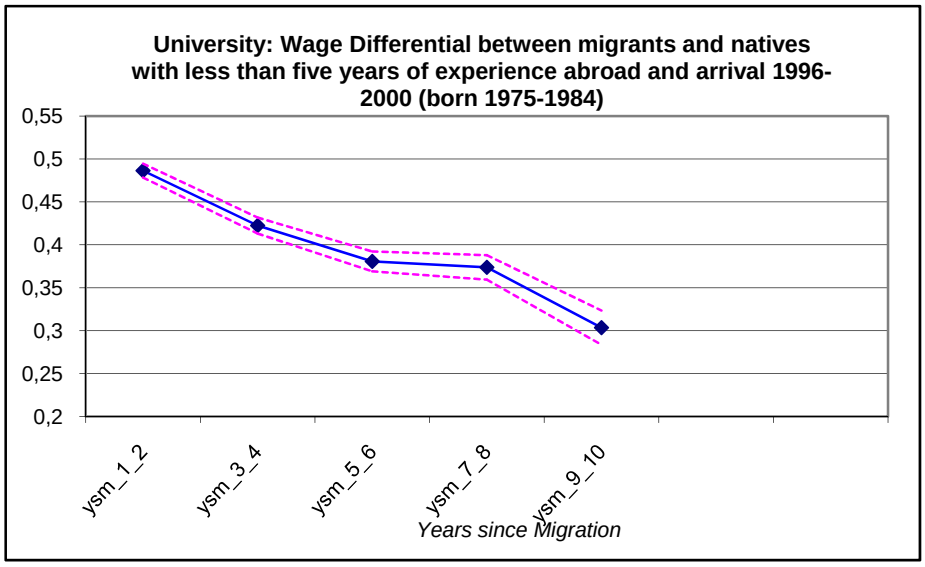
Table 2. (*Continued*) Wage Equation Estimations at Percentile 50
Males by Education Level, Longitudinal 2008 MCVL

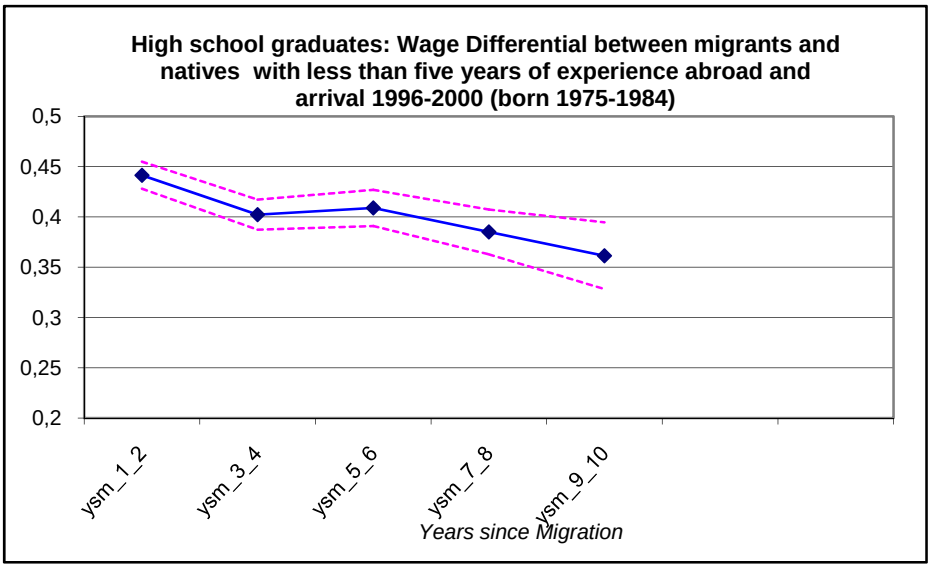
	High school dropouts	***High school graduates***	***University***
Experience abroad from 5-9	-0.092***	-0.058	-0.121***
	(0.007)	(0.037)	(0.008)
Experience abroad from 10-14	-0.123***	-0.125***	-0.203***
	(0.006)	(0.037)	(0.009)
Experience abroad, from 15-19	-0.179***	-0.235***	-0.186***
	(0.007)	(0.037)	(0.010)
More than 25 years of experience abroad	-0.215***	-0.302***	-0.262***
	(0.009)	(0.039)	(0.014)
Arrival 1983-1985	-0.034	-0.133	-0.449***
	(0.048)	(0.115)	(0.063)
Arrival 1986-1990	0.025	-0.077	0.333***
	(0.024)	(0.049)	(0.024)
Arrival 1991-1995	-0.023	-0.144***	-0.167***
	(0.020)	(0.041)	(0.021)
Arrival 1996-2000	0.042**	-0.029	-0.165***
	(0.018)	(0.037)	(0.020)
Arrival 2001-2005	0.052***	-0.005	-0.141***
	(0.018)	(0.036)	(0.020)
Arrival >2005	0.112***	0.038	-0.002
	(0.020)	(0.039)	(0.021)
Constant	8.668***	8.438***	8.473***
	(0.004)	(0.007)	(0.004)
R2	0,0342	0,0637	0,1074
Sample size	2,158,016	844,580	343,590

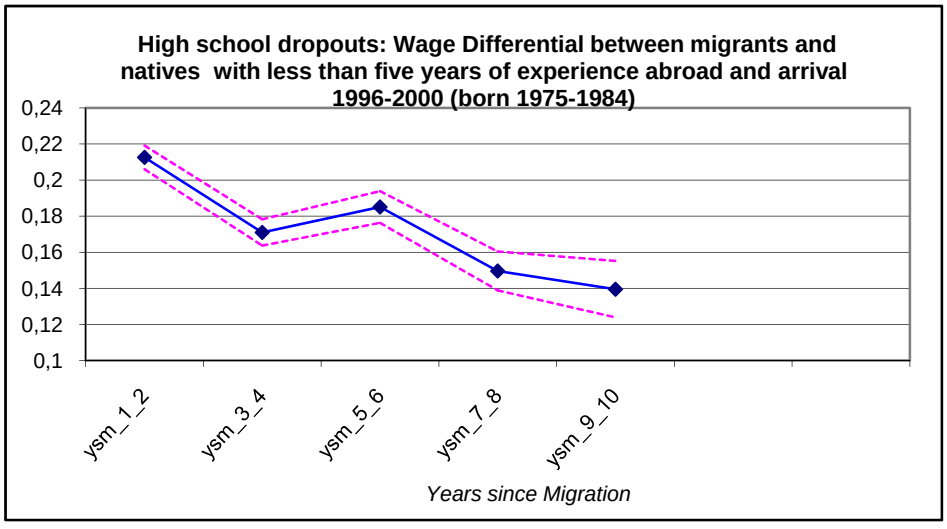
Note: Dependent variable: logarithm of daily wages. Regressions are estimated pooling natives and immigrants coming from countries outside the EU-15. In addition, regressions include experience in Spain and abroad, the NAIRU (HP filter on the original unemployment) and region dummies. See Appendix Table A.1 for complete list of coefficients. Restricting time effects to certain macroeconomic variables has been widely used in the literature (see Beaudry and Lemieux, 1999).

*** p<0.01, ** p<0.05, * p<0.1

Figure 2 : Native-Immigrants Wage Differentials, Males by Educational Level, 2008 MCVL







APPENDIX (Not for Publication)

Table A.1
Descriptive Statistics: MEN

	NATIVES									FOREIGNERS								
	LFS Year																	
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Males																		
Married	0,61	0,61	0,60	0,60	0,59	0,58	0,58	0,58	0,58	0,65	0,63	0,57	0,62	0,64	0,61	0,59	0,61	0,60
Household head	0,62	0,62	0,61	0,61	0,61	0,58	0,51	0,50	0,50	0,69	0,59	0,59	0,58	0,62	0,60	0,55	0,54	0,55
Number of years in the country										4,09	2,99	3,27	3,49	3,90	4,66	4,85	5,09	5,59
College degree	0,15	0,16	0,16	0,16	0,17	0,18	0,18	0,18	0,19	0,20	0,24	0,24	0,19	0,20	0,17	0,15	0,15	0,15
Some college (vocational training)	0,27	0,28	0,28	0,28	0,29	0,30	0,31	0,32	0,32	0,27	0,31	0,32	0,34	0,35	0,40	0,42	0,42	0,41
High-school graduate	0,23	0,25	0,25	0,27	0,27	0,26	0,27	0,27	0,28	0,14	0,19	0,16	0,15	0,16	0,15	0,15	0,15	0,17
High-school dropout	0,34	0,32	0,31	0,29	0,28	0,25	0,24	0,23	0,22	0,38	0,26	0,28	0,32	0,29	0,28	0,28	0,28	0,28
Employed	0,76	0,77	0,78	0,78	0,78	0,79	0,80	0,81	0,79	0,77	0,83	0,81	0,82	0,83	0,84	0,85	0,83	0,79
20-24 years	0,13	0,13	0,12	0,12	0,11	0,11	0,10	0,10	0,09	0,04	0,08	0,07	0,04	0,04	0,03	0,03	0,04	0,03
25-29 years	0,14	0,14	0,14	0,14	0,13	0,13	0,13	0,12	0,12	0,17	0,20	0,22	0,20	0,21	0,21	0,18	0,18	0,16
30-34 years	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,24	0,22	0,20	0,26	0,24	0,21	0,25	0,26	0,26
35-39 years	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,17	0,19	0,21	0,18	0,20	0,22	0,22	0,20	0,20
40-44 years	0,11	0,12	0,12	0,12	0,12	0,12	0,12	0,13	0,13	0,14	0,13	0,13	0,13	0,14	0,12	0,13	0,14	0,15
45-49 years	0,10	0,10	0,10	0,11	0,11	0,11	0,11	0,12	0,12	0,09	0,08	0,06	0,06	0,07	0,10	0,09	0,08	0,09
50-54 years	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,05	0,05	0,06	0,07	0,06	0,05	0,05	0,05	0,06
55-59 years	0,08	0,09	0,09	0,09	0,09	0,09	0,09	0,09	0,09	0,04	0,02	0,03	0,03	0,03	0,03	0,03	0,03	0,03
60-64 years	0,07	0,07	0,07	0,07	0,08	0,08	0,08	0,08	0,09	0,05	0,03	0,02	0,02	0,01	0,01	0,02	0,02	0,02
Number of observations	52891	50832	50004	50909	50462	43954	45604	46559	46556	375	577	752	1100	1376	1417	1917	2415	2710
Population (in thousands)	12008	12055	12177	12244	12285	12361	12425	12480	12457	214	374	506	715	968	1094	1305	1545	1740

Note: Actual age is unavailable, instead we have individuals' age coded by group years, as shown in the table.

Table A.1 (*Continued*)
Descriptive Statistics: IMMIGRANT MEN

	LFS Year								
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Continent of origin									
From EU15	0,31	0,22	0,18	0,14	0,14	0,11	0,12	0,11	0,10
From Europe (excluding EU15)	0,08	0,13	0,18	0,22	0,21	0,24	0,20	0,23	0,23
From AFRICA	0,31	0,25	0,21	0,23	0,20	0,20	0,23	0,22	0,20
From Latin America	0,24	0,35	0,39	0,39	0,42	0,42	0,42	0,41	0,41
Other origin	0,06	0,05	0,04	0,03	0,03	0,03	0,03	0,03	0,05
Year of arrival									
1990-94	0,32	0,18	0,15	0,12	0,11	0,08	0,06	0,05	0,05
1995-98	0,36	0,21	0,17	0,13	0,08	0,10	0,09	0,07	0,06
1999	0,13	0,14	0,12	0,09	0,08	0,08	0,05	0,05	0,04
2000	0,19	0,19	0,20	0,16	0,15	0,16	0,14	0,10	0,10
2001		0,29	0,14	0,21	0,19	0,17	0,16	0,14	0,09
2002			0,24	0,14	0,17	0,15	0,14	0,14	0,14
2003				0,15	0,11	0,11	0,12	0,10	0,09
2004					0,11	0,09	0,10	0,11	0,10
2005						0,05	0,09	0,08	0,09
2006							0,06	0,10	0,08
2007								0,07	0,09
2008									0,05
Number of observations	375	577	752	1100	1376	1417	1917	2415	2710
Population (in thousands)	214	374	506	715	968	1094	1305	1545	1740

Table A.2
Descriptive Statistics: WOMEN

	NATIVES									FOREIGNERS								
	LFS Year																	
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Males																		
Married	0,65	0,65	0,65	0,64	0,64	0,63	0,63	0,63	0,62	0,67	0,63	0,55	0,61	0,62	0,61	0,58	0,58	0,59
Household head	0,12	0,13	0,14	0,15	0,16	0,23	0,34	0,35	0,37	0,18	0,21	0,24	0,24	0,25	0,27	0,31	0,32	0,33
Number of years in the country										3,92	3,16	3,13	3,00	3,60	4,11	4,34	4,66	4,98
College degree	0,16	0,17	0,18	0,18	0,20	0,21	0,21	0,22	0,22	0,24	0,24	0,22	0,22	0,23	0,22	0,20	0,18	0,18
Some college (vocational training)	0,25	0,26	0,26	0,26	0,27	0,29	0,29	0,29	0,30	0,30	0,35	0,36	0,35	0,39	0,39	0,42	0,42	0,40
High-school graduate	0,21	0,22	0,23	0,24	0,24	0,23	0,24	0,24	0,24	0,15	0,15	0,16	0,15	0,14	0,15	0,15	0,16	0,17
High-school dropout	0,38	0,35	0,33	0,31	0,30	0,27	0,25	0,24	0,23	0,31	0,26	0,25	0,28	0,24	0,24	0,23	0,23	0,24
Employed	0,44	0,46	0,47	0,49	0,51	0,53	0,55	0,57	0,58	0,48	0,54	0,60	0,57	0,59	0,66	0,65	0,63	0,62
20-24 years	0,13	0,12	0,12	0,11	0,11	0,10	0,10	0,09	0,09	0,04	0,08	0,08	0,06	0,05	0,04	0,05	0,05	0,04
25-29 years	0,13	0,13	0,13	0,13	0,13	0,12	0,12	0,11	0,11	0,20	0,22	0,19	0,21	0,22	0,21	0,22	0,21	0,20
30-34 years	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,12	0,22	0,20	0,22	0,24	0,23	0,22	0,22	0,23	0,24
35-39 years	0,13	0,13	0,13	0,13	0,12	0,13	0,13	0,13	0,13	0,17	0,17	0,17	0,15	0,20	0,18	0,18	0,19	0,18
40-44 years	0,12	0,12	0,12	0,12	0,12	0,12	0,12	0,13	0,13	0,12	0,14	0,13	0,13	0,12	0,15	0,13	0,13	0,13
45-49 years	0,10	0,10	0,11	0,11	0,11	0,11	0,12	0,12	0,12	0,08	0,08	0,09	0,09	0,08	0,09	0,09	0,08	0,09
50-54 years	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,11	0,06	0,05	0,05	0,05	0,05	0,07	0,07	0,06	0,06
55-59 years	0,09	0,09	0,09	0,09	0,10	0,10	0,10	0,10	0,10	0,05	0,04	0,03	0,04	0,03	0,02	0,02	0,03	0,03
60-64 years	0,08	0,08	0,08	0,08	0,08	0,09	0,09	0,09	0,09	0,06	0,04	0,03	0,02	0,02	0,02	0,02	0,02	0,03
Number of observations	54725	52341	51804	52368	52163	45971	47433	48518	48457	398	570	827	1152	1462	1514	2051	2553	2834
Population (in thousands)	12032	12095	12138	12186	12214	12224	12233	12231	12272	230	358	532	721	937	1102	1298	1518	1667

Note: Actual age is unavailable, instead we have individuals' age coded by group years, as shown in the table.

Table A.2 (*Continued*)
Descriptive Statistics: IMMIGRANT WOMEN

	LFS Year								
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Continent of origin									
From EU15	0,26	0,21	0,16	0,14	0,13	0,11	0,10	0,10	0,10
From Europe (excluding EU15)	0,08	0,15	0,14	0,18	0,20	0,22	0,22	0,23	0,26
From AFRICA	0,24	0,16	0,11	0,13	0,12	0,11	0,12	0,12	0,13
From Latin America	0,38	0,44	0,56	0,53	0,52	0,53	0,54	0,51	0,48
Other origin	0,04	0,05	0,03	0,02	0,02	0,03	0,02	0,03	0,03
Year of arrival									
1990-94	0,27	0,17	0,13	0,07	0,08	0,05	0,04	0,04	0,04
1995-98	0,43	0,27	0,22	0,15	0,11	0,10	0,09	0,07	0,05
1999	0,12	0,14	0,11	0,08	0,08	0,08	0,04	0,04	0,03
2000	0,17	0,18	0,15	0,16	0,14	0,15	0,12	0,08	0,07
2001		0,25	0,14	0,19	0,16	0,14	0,13	0,12	0,08
2002			0,26	0,14	0,17	0,16	0,14	0,15	0,14
2003				0,21	0,14	0,14	0,13	0,11	0,11
2004					0,12	0,13	0,11	0,12	0,12
2005						0,06	0,11	0,09	0,10
2006							0,09	0,10	0,08
2007								0,08	0,11
2008									0,07
Number of observations	398	570	827	1152	1462	1514	2051	2553	2834
Population (in thousands)	230	358	532	721	937	1102	1298	1518	1667

Table A.3
Natives occupational distribution for MEN, by LFS

EPA year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Not working	0,24	0,23	0,22	0,22	0,22	0,21	0,20	0,19	0,21
Professional	0,21	0,22	0,22	0,23	0,24	0,25	0,25	0,27	0,27
Other White-collar	0,12	0,12	0,12	0,12	0,12	0,12	0,13	0,12	0,12
Blue-collar	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,34
Non Qualified	0,09	0,08	0,08	0,08	0,08	0,08	0,08	0,07	0,06

Table A.4
Immigrants occupational distribution for MEN, by LFS

EPA year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Year of arrival: 1990-1994									
Not working	0,28	0,13	0,16	0,17	0,16	0,20	0,15	0,22	0,24
Professional	0,21	0,28	0,32	0,23	0,22	0,23	0,17	0,21	0,20
Other White	0,13	0,13	0,12	0,09	0,08	0,05	0,09	0,11	0,09
Blue Collar	0,24	0,27	0,29	0,36	0,39	0,28	0,45	0,32	0,32
Non Qualified	0,14	0,19	0,12	0,15	0,15	0,24	0,13	0,14	0,15
Year of arrival: 1995-1998									
Not working	0,13	0,14	0,17	0,12	0,19	0,18	0,17	0,12	0,21
Professional	0,15	0,25	0,18	0,15	0,26	0,23	0,18	0,20	0,19
Other White	0,16	0,11	0,23	0,14	0,11	0,13	0,10	0,10	0,10
Blue Collar	0,36	0,30	0,23	0,38	0,30	0,32	0,34	0,36	0,34
Non Qualified	0,20	0,21	0,20	0,22	0,13	0,14	0,21	0,23	0,16
Year of arrival: 1999									
Not working	0,13	0,21	0,23	0,16	0,12	0,15	0,16	0,09	0,23
Professional	0,28	0,15	0,07	0,07	0,13	0,10	0,10	0,11	0,18
Other White	0,21	0,08	0,08	0,09	0,08	0,06	0,11	0,17	0,10
Blue Collar	0,09	0,36	0,49	0,38	0,40	0,45	0,40	0,41	0,36
Non Qualified	0,29	0,21	0,13	0,30	0,28	0,24	0,23	0,21	0,13
Year of arrival: 2000									
Not working	0,42	0,26	0,19	0,14	0,10	0,16	0,14	0,14	0,21
Professional	0,18	0,10	0,06	0,14	0,12	0,03	0,05	0,09	0,08
Other White	0,04	0,11	0,10	0,14	0,07	0,07	0,12	0,09	0,10
Blue Collar	0,13	0,22	0,40	0,34	0,39	0,47	0,48	0,49	0,46
Non Qualified	0,23	0,31	0,25	0,25	0,32	0,27	0,21	0,20	0,15
Year of arrival: 2001									
Not working		0,13	0,13	0,13	0,10	0,11	0,10	0,14	0,17
Professional		0,18	0,12	0,09	0,08	0,06	0,09	0,09	0,09
Other White		0,10	0,07	0,11	0,10	0,15	0,10	0,10	0,12
Blue Collar		0,27	0,24	0,37	0,46	0,34	0,46	0,43	0,46
Non Qualified		0,32	0,44	0,30	0,26	0,34	0,26	0,24	0,16
Year of arrival: 2002									
Not working			0,22	0,22	0,19	0,16	0,14	0,11	0,18
Professional			0,20	0,03	0,09	0,09	0,09	0,07	0,07
Other White			0,12	0,11	0,08	0,15	0,09	0,10	0,07
Blue Collar			0,23	0,31	0,34	0,37	0,42	0,49	0,50
Non Qualified			0,23	0,34	0,30	0,23	0,26	0,23	0,17

Table A.4 (*Continued*)
Immigrants occupational distribution for MEN, by LFS

EPA year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Year of arrival: 2003									
Not working				0,34	0,30	0,14	0,11	0,15	0,18
Professional				0,10	0,14	0,09	0,12	0,09	0,08
Other White				0,06	0,04	0,12	0,15	0,09	0,08
Blue Collar				0,27	0,32	0,35	0,37	0,45	0,47
Non Qualified				0,23	0,20	0,30	0,24	0,21	0,19
Year of arrival: 2004									
Not working					0,27	0,14	0,12	0,16	0,17
Professional					0,19	0,12	0,10	0,08	0,08
Other White					0,06	0,08	0,16	0,11	0,16
Blue Collar					0,23	0,39	0,39	0,43	0,42
Non Qualified					0,25	0,28	0,22	0,22	0,17
Year of arrival: 2005									
Not working						0,30	0,23	0,21	0,17
Professional						0,08	0,09	0,06	0,04
Other White						0,12	0,11	0,16	0,13
Blue Collar						0,33	0,27	0,30	0,47
Non Qualified						0,17	0,30	0,28	0,19
Year of arrival: 2006									
Not working							0,29	0,22	0,28
Professional							0,08	0,08	0,07
Other White							0,05	0,10	0,07
Blue Collar							0,36	0,31	0,41
Non Qualified							0,21	0,29	0,17
Year of arrival: 2007									
Not working								0,32	0,29
Professional								0,06	0,10
Other White								0,09	0,10
Blue Collar								0,28	0,34
Non Qualified								0,26	0,18
Year of arrival: 2008									
Not working									0,30
Professional									0,09
Other White									0,12
Blue Collar									0,20
Non Qualified									0,29

Table A.5
Natives occupational distribution for WOMEN, by LFS

EPA year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Not working	0,56	0,54	0,53	0,51	0,49	0,47	0,45	0,43	0,42
Professional	0,15	0,16	0,17	0,17	0,19	0,20	0,21	0,23	0,23
Other White-collar	0,17	0,17	0,18	0,19	0,19	0,21	0,22	0,22	0,22
Blue-collar	0,05	0,05	0,04	0,04	0,04	0,04	0,04	0,04	0,04
Non Qualified	0,08	0,08	0,08	0,08	0,08	0,08	0,09	0,09	0,09

Table A.6
Immigrants occupational distribution for WOMEN, by LFS

EPA year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Year of arrival: 1990-1994									
Not working	0,49	0,51	0,40	0,51	0,47	0,37	0,42	0,50	0,45
Professional	0,19	0,16	0,13	0,18	0,23	0,26	0,12	0,24	0,27
Other White	0,17	0,15	0,20	0,16	0,11	0,15	0,17	0,13	0,12
Blue Collar	0,01	0,06	0,06	0,02	0,02	0,05	0,02	0,00	0,02
Non Qualified	0,14	0,11	0,20	0,13	0,16	0,17	0,28	0,12	0,14
Year of arrival: 1995-1998									
Not working	0,48	0,44	0,43	0,44	0,43	0,45	0,43	0,42	0,45
Professional	0,07	0,10	0,11	0,05	0,15	0,11	0,12	0,12	0,08
Other White	0,19	0,26	0,23	0,14	0,13	0,19	0,24	0,14	0,15
Blue Collar	0,04	0,02	0,04	0,05	0,03	0,02	0,01	0,04	0,03
Non Qualified	0,22	0,18	0,20	0,32	0,27	0,23	0,21	0,28	0,29
Year of arrival: 1999									
Not working	0,56	0,57	0,33	0,41	0,42	0,37	0,32	0,47	0,40
Professional	0,09	0,07	0,02	0,07	0,06	0,05	0,05	0,03	0,08
Other White	0,11	0,11	0,23	0,10	0,10	0,23	0,31	0,20	0,23
Blue Collar	0,02	0,02	0,03	0,04	0,02	0,04	0,05	0,04	0,04
Non Qualified	0,22	0,22	0,39	0,38	0,40	0,30	0,27	0,25	0,25
Year of arrival: 2000									
Not working	0,61	0,38	0,27	0,29	0,36	0,25	0,25	0,28	0,37
Professional	0,00	0,03	0,05	0,07	0,02	0,05	0,07	0,07	0,07
Other White	0,20	0,19	0,27	0,21	0,26	0,30	0,28	0,27	0,26
Blue Collar	0,02	0,02	0,03	0,03	0,04	0,07	0,03	0,02	0,02
Non Qualified	0,17	0,37	0,38	0,40	0,32	0,32	0,36	0,36	0,27
Year of arrival: 2001									
Not working		0,42	0,40	0,38	0,31	0,29	0,31	0,36	0,32
Professional		0,10	0,06	0,07	0,07	0,09	0,08	0,04	0,06
Other White		0,15	0,20	0,20	0,21	0,29	0,26	0,22	0,21
Blue Collar		0,02	0,00	0,01	0,04	0,05	0,04	0,03	0,04
Non Qualified		0,32	0,34	0,34	0,38	0,28	0,31	0,35	0,38
Year of arrival: 2002									
Not working			0,47	0,38	0,36	0,34	0,32	0,24	0,29
Professional			0,04	0,05	0,03	0,04	0,03	0,05	0,08
Other White			0,19	0,21	0,24	0,18	0,25	0,27	0,24
Blue Collar			0,01	0,03	0,02	0,03	0,02	0,05	0,02
Non Qualified			0,30	0,33	0,35	0,41	0,38	0,39	0,37

Table A.6 (*Continued*)
Immigrants occupational distribution for WOMEN, by LFS

EPA year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Year of arrival: 2003									
Not working				0,60	0,49	0,28	0,34	0,33	0,33
Professional				0,06	0,07	0,08	0,03	0,04	0,06
Other White				0,10	0,15	0,18	0,21	0,23	0,24
Blue Collar				0,01	0,02	0,02	0,04	0,05	0,06
Non Qualified				0,23	0,26	0,44	0,39	0,35	0,32
Year of arrival: 2004									
Not working					0,58	0,42	0,33	0,34	0,33
Professional					0,08	0,08	0,05	0,06	0,07
Other White					0,09	0,18	0,20	0,27	0,26
Blue Collar					0,01	0,02	0,02	0,01	0,03
Non Qualified					0,25	0,29	0,41	0,32	0,32
Year of arrival: 2005									
Not working						0,43	0,38	0,38	0,35
Professional						0,06	0,05	0,05	0,07
Other White						0,13	0,18	0,21	0,25
Blue Collar						0,04	0,01	0,02	0,01
Non Qualified						0,33	0,38	0,34	0,33
Year of arrival: 2006									
Not working							0,50	0,46	0,43
Professional							0,05	0,02	0,05
Other White							0,18	0,18	0,20
Blue Collar							0,02	0,02	0,02
Non Qualified							0,25	0,32	0,31
Year of arrival: 2007									
Not working								0,53	0,45
Professional								0,04	0,05
Other White								0,13	0,19
Blue Collar								0,01	0,02
Non Qualified								0,29	0,29
Year of arrival: 2008									
Not working									0,57
Professional									0,04
Other White									0,14
Blue Collar									0,01
Non Qualified									0,23

Table A.7. Multinomial Logit, Relative Risk Ratios, LFS 2000-2008

	NATIVES								FOREIGNERS							
	LFS Year															
	Professional		**Other White**		**Blue Collar**		**Not Qualified**		**Professional**		**Other White**		**Blue Collar**		**Not Qualified**	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Males	2,763	(0,001)	1,259	(0,001)	17,763	(0,010)	1,953	(0,001)	4,423	(0,009)	1,273	(0,007)	35,038	(0,027)	1,784	(0,003)
Married	1,286	(0,001)	0,929	(0,000)	1,515	(0,001)	0,770	(0,000)	0,777	(0,002)	0,564	(0,001)	0,823	(0,002)	0,593	(0,001)
Household head	2,154	(0,001)	1,977	(0,001)	1,756	(0,001)	1,608	(0,001)	1,807	(0,004)	1,589	(0,003)	1,468	(0,003)	1,371	(0,002)
College degree	33,433	(0,025)	2,470	(0,002)	0,159	(0,000)	0,126	(0,000	9,819	(0,038)	1,410	(0,004)	0,462	(0,001)	0,440	(0,001)
Some college (vocational training)	6,538	(0,005)	3,720	(0,002)	0,784	(0,000)	0,398	(0,000)	2,320	(0,009)	1,858	(0,004)	0,970	(0,002)	0,788	(0,001)
High-school graduate	2,347	(0,002)	2,437	(0,002)	1,313	(0,001)	0,996	(0,001)	1,294	(0,006)	1,355	(0,004)	1,005	(0,003)	0,867	(0,002)
20-24 YEARS	0,874	(0,001)	3,708	(0,005)	4,774	(0,006)	4,437	(0,007)	2,252	(0,026)	7,522	(0,061)	3,575	(0,033)	4,834	(0,036)
25-29 YEARS	3,371	(0,004)	8,932	(0,012)	11,941	(0,014)	8,643	(0,013)	7,045	(0,057)	7,448	(0,055)	8,779	(0,069)	6,060	(0,042)
30-34 YEARS	4,572	(0,005)	9,098	(0,012)	11,558	(0,012)	8,870	(0,012)	10,176	(0,080)	7,464	(0,054)	10,146	(0,079)	6,567	(0,045)
35-39 YEARS	4,635	(0,005)	7,818	(0,010)	9,695	(0,010)	8,346	(0,011)	11,034	(0,087)	8,276	(0,061)	12,841	(0,101)	8,448	(0,058)
40-44 YEARS	5,156	(0,006)	7,766	(0,010)	8,958	(0,009)	8,107	(0,011)	11,031	(0,088)	8,502	(0,063)	12,412	(0,098)	9,039	(0,063)
45-49 YEARS	5,080	(0,006)	6,973	(0,009)	7,543	(0,008)	6,349	(0,009)	9,440	(0,078)	7,193	(0,055)	9,800	(0,079)	7,390	(0,052)
50-54 YEARS	4,198	(0,005)	4,962	(0,006)	5,351	(0,006)	4,343	(0,006)	5,877	(0,050)	4,645	(0,037)	7,116	(0,059)	6,190	(0,045)
55-59 YEARS	2,619	(0,003)	2,589	(0,004)	2,940	(0,003)	2,414	(0,003)	3,067	(0,028)	2,002	(0,017)	2,693	(0,024)	2,369	(0,019)
From EU15									1,233	(0,006)	0,417	(0,002)	1,742	(0,011)	0,301	(0,002)
From Europe (excluding EU15)									0,293	(0,002)	0,439	(0,002)	7,425	(0,045)	2,296	(0,011)
From AFRICA									0,100	(0,001)	0,204	(0,001)	1,435	(0,009)	0,846	(0,004)
From Latin America									0,503	(0,002)	0,767	(0,003)	4,893	(0,029)	2,469	(0,011)
Population (in thousands)	244.016								17.099							
Pseudo R2	0,2229								0,2047							

Table A.7. Multinomial Logit, Relative Risk Ratios, LFS 2000-2008 (*Continued*)

	NATIVES				FOREIGNERS			
	LFS Year							
	Professional	Other White	Blue Collar	Not Qualified	Professional	Other White	Blue Collar	Not Qualified
ANDALUCIA	1,084 (0,005)	0,723 (0,003)	2,365 (0,014)	1,741 (0,010)	0,673 (0,025)	1,708 (0,057)	1,238 (0,038)	5,528 (0,172)
ARAGON	2,056 (0,009)	1,117 (0,004)	7,325 (0,043)	2,213 (0,013)	0,500 (0,019)	2,020 (0,068)	2,514 (0,077)	7,879 (0,247)
ASTURIAS	1,061 (0,005)	0,724 (0,003)	3,750 (0,022)	1,450 (0,009)	1,312 (0,052)	2,557 (0,088)	2,501 (0,081)	5,175 (0,168)
BALEARES	2,746 (0,013)	2,251 (0,009)	5,431 (0,032)	2,666 (0,016)	1,006 (0,038)	2,744 (0,091)	3,350 (0,103)	6,899 (0,216)
CANARIAS	1,253 (0,006)	1,176 (0,005)	2,810 (0,016)	2,216 (0,013)	0,566 (0,021)	2,553 (0,085)	1,674 (0,051)	4,697 (0,147)
CANTABRIA	1,246 (0,006)	0,923 (0,004)	5,118 (0,031)	1,976 (0,012)	0,382 (0,016)	2,501 (0,087)	2,259 (0,074)	5,338 (0,174)
LEON	1,351 (0,006)	0,929 (0,004)	5,394 (0,031)	1,873 (0,011)	0,347 (0,013)	1,489 (0,050)	2,530 (0,078)	5,312 (0,166)
MANCHA	1,563 (0,007)	0,963 (0,004)	5,020 (0,029)	1,700 (0,010)	0,430 (0,016)	1,622 (0,054)	2,123 (0,065)	5,744 (0,180)
CAT	2,465 (0,011)	1,722 (0,006)	6,968 (0,040)	2,323 (0,014)	0,837 (0,031)	2,359 (0,078)	2,563 (0,078)	5,207 (0,162)
VAL	1,791 (0,008)	1,081 (0,004)	5,313 (0,031)	2,199 (0,013)	0,516 (0,019)	1,826 (0,061)	1,987 (0,061)	4,817 (0,150)
EXT	1,198 (0,005)	0,696 (0,003)	2,723 (0,016)	1,834 (0,011)	0,869 (0,035)	1,159 (0,042)	0,944 (0,032)	6,088 (0,198)
GAL	1,544 (0,007)	0,957 (0,004)	6,102 (0,035)	1,733 (0,010)	0,886 (0,034)	1,309 (0,044)	1,689 (0,053)	3,007 (0,095)
MAD	2,007 (0,009)	1,441 (0,005)	3,872 (0,022)	2,201 (0,013)	0,950 (0,036)	2,747 (0,091)	2,930 (0,089)	7,137 (0,222)
MURCIA	1,555 (0,007)	0,974 (0,004)	4,521 (0,026)	2,231 (0,013)	0,396 (0,015)	1,627 (0,054)	1,767 (0,054)	11,581 (0,361)
NAV	1,994 (0,009)	1,088 (0,005)	9,715 (0,058)	1,988 (0,013)	0,479 (0,019)	1,926 (0,065)	2,779 (0,087)	6,377 (0,202)
PV	1,721 (0,008)	1,010 (0,004)	6,389 (0,037)	2,129 (0,013)	0,613 (0,023)	1,875 (0,063)	1,833 (0,057)	5,274 (0,166)
RIOJA	1,823 (0,009)	1,145 (0,005)	8,650 (0,054)	1,574 (0,011)	0,531 (0,021)	1,333 (0,046)	3,435 (0,108)	6,940 (0,221)
CEUTA	0,940 (0,009)	0,739 (0,006)	0,684 (0,009)	1,070 (0,012)	2,407 (0,123)	1,955 (0,092)	0,448 (0,026)	1,357 (0,066)
Number of observations								
Population (in thousands)	244.016				17.099			
Pseudo R2	0,2229				0,2047			

Table A.7. Multinomial Logit, Relative Risk Ratios, LFS 2000-2008 (*Continued*)

	NATIVES				FOREIGNERS			
	Occupation							
	Professional	**Other White**	**Blue Collar**	**Not Qualified**	**Professional**	**Other White**	**Blue Collar**	**Not Qualified**
EPA01	1,054 (0,001)	1,027 (0,001)	1,069 (0,001)	1,025 (0,001)	1,141 (0,008)	1,035 (0,006)	1,376 (0,010)	1,404 (0,008)
EPA02	1,064 (0,001)	1,049 (0,001)	1,085 (0,001)	1,066 (0,001)	0,825 (0,006)	1,120 (0,006)	1,283 (0,008)	1,277 (0,007)
EPA03	1,103 (0,001)	1,105 (0,001)	1,138 (0,001)	1,121 (0,001)	0,756 (0,005)	0,841 (0,005)	1,216 (0,008)	1,255 (0,006)
EPA04	1,157 (0,001)	1,123 (0,001)	1,184 (0,001)	1,158 (0,001)	0,915 (0,006)	0,757 (0,004)	1,267 (0,008)	1,216 (0,006)
EPA05	1,187 (0,001)	1,224 (0,001)	1,289 (0,001)	1,246 (0,001)	0,999 (0,006)	1,070 (0,006)	1,415 (0,009)	1,426 (0,007)
EPA06	1,267 (0,001)	1,293 (0,001)	1,352 (0,001)	1,305 (0,001)	0,926 (0,006)	1,130 (0,006)	1,554 (0,009)	1,431 (0,007)
EPA07	1,409 (0,001)	1,360 (0,001)	1,430 (0,001)	1,361 (0,002)	0,802 (0,005)	1,026 (0,005)	1,438 (0,008)	1,329 (0,006)
EPA08	1,370 (0,001)	1,342 (0,001)	1,355 (0,001)	1,280 (0,001)	0,781 (0,005)	0,931 (0,005)	1,334 (0,008)	1,022 (0,005)
Year since arrival, 1					0,655 (0,003)	1,080 (0,003)	0,928 (0,003)	1,259 (0,003)
Years since arrival, 2					0,610 (0,002)	1,596 (0,005)	1,253 (0,004)	1,614 (0,004)
Years since arrival, 3					0,754 (0,003)	1,877 (0,006)	1,776 (0,006)	1,736 (0,005)
Years since arrival, 4					0,876 (0,003)	1,982 (0,006)	1,656 (0,005)	1,668 (0,005)
Years since arrival, 5					0,986 (0,004)	2,092 (0,007)	2,301 (0,007)	1,810 (0,005)
Years since arrival, 6					0,973 (0,004)	1,842 (0,006)	1,896 (0,006)	1,557 (0,005)
Years since arrival, 7					0,996 (0,005)	1,671 (0,007)	1,677 (0,007)	1,379 (0,005)
Years since arrival, 8					0,793 (0,004)	1,774 (0,008)	1,730 (0,008)	1,266 (0,005)
Years since arrival, 9					1,372 (0,009)	1,498 (0,009)	1,449 (0,009)	1,442 (0,007)
Number of observations								
(in thousands)	244.016				17.099			
Pseudo R2	0,2229				0,2047			

Figure A.1 : Change in Occupational Predicted Probabilities with Time in Spain (Net of Changes Observed in Native Population) Females