## WP3/07 SEARCH WORKING PAPER

**Immigrant-Native Wage Gaps and** 

the Returns to Human Capital

Raúl Ramos, Alessia Matano, Sandra Nieto

January 2013











Funded under Socio-economic Sciences & Humanities

# Immigrant-native wage gaps and the returns to human capital<sup>1</sup>

Raúl Ramos, Alessia Matano, Sandra Nieto

AQR-IREA, Universitat de Barcelona Avda Diagonal 690, 08034 Barcelona, Spain Tel+34 934024310; FAX: +34 934021821

Email: <a href="mailto:rramos@ub.edu">rramos@ub.edu</a>; <a href="mailto:snieto@ub.edu">snieto@ub.edu</a>; <a href="mailto:snieto@ub.edu">snieto@ub.edu</a></a>

#### **Abstract**

The aim of this paper is to quantify immigrant-native wage gaps in the European Union countries putting special attention to the role of favourable or unfavourable policies supporting the labour market integration of recently arrived immigrants. Analysing data from MIPEX for the period 2007-2010, we identify that nearly all new EU member states (EU-12) have unfavourable policies while in the old EU member states (EU-15) there are two clear groups of countries: one formed by Austria, Belgium, Greece, Ireland, Italy, Luxemburg and the United Kingdom with less favourable policies and a second one formed by Germany, Denmark, Spain, Finland, France, Netherlands, Portugal and Sweden where policies are more favourable. Using cross-sectional microdata from the EU-SILC, we estimate separate Mincer equations for the three groups of countries. Our results show that wage differentials between immigrant and natives are lower in those countries with more favourable policies, but this is the result of a better relative situation of medium-skilled workers and not of highly-qualified ones. In any case, the wage gap for immigrants in EU-15 countries is clearly lower than for those arriving at EU-12 countries. However, although our results suggests that these policies do have some effects on immigrants' labour market integration, it is not possible to disentangle which part of the effect is due to this particular measure, to other migration policy or even to 'non-migration policies'.

#### **Keywords**

Returns to human capital, migration.

**JEL Classification** 

J15, J24, J31, J61.

\_

<sup>&</sup>lt;sup>1</sup> We make use of microdata from the European Commission, Eurostat, cross-sectional EU-SILC 2004 to 2010 database made available by Eurostat under contract EU-SILC/2012/17. Eurostat has no responsibility for the results and conclusions reported here.

#### 1. MOTIVATION AND OBJECTIVES

The relative situation of immigrants in the labour market of the host country has played a central role in the numerous studies carried out in recent decades on the subject of international migration and its consequences. Both academics and policy makers have placed particular attention on the wage gap between immigrants and native-born workers. As summarised in Sanromá et al. (2009), the key empirical findings of this literature are twofold: first, immigrants typically face a significant wage gap when arriving to the host country and, second, this gap tends to diminish the longer they remain in their host country. Recent contributions have argued that the wage disadvantage experienced by immigrants when they arrive in a new country can generally be attributed to the limited transferability of the human capital they have acquired in their home country. In fact, as highlighted by Dustman and Glitz (2011), the educational attainment of the foreign-born population serves as a key indicator of their performance in the host country's labour market. The reason may lie in the lower quality of the educational system there or in a different cultural background, but whatever the case may be, the relevant fact is that newly arrived immigrants lack sufficient human capital for their host country's labour market. However, the main explanatory factor behind the rapid growth over time in immigrant wage levels is related to their accumulation of different types of human capital in the host country, which is particularly significant in the first years of residence in the host country. This process could be facilitated by a favourable legislation to labour mobility in the host country.

The aim of this paper is to quantify immigrant-native wage gaps in the European Union countries putting special attention to returns to human capital and the role of favourable or unfavourable policies supporting the labour market integration of recently arrived immigrants. In particular, to find a job, not all foreign residents with the right to work have equal access to the full labour market, education system or employment services. For instance, only nationals and EU nationals in Europe enjoy equal opportunities in the public sector and better procedures to recognise their non-EU degrees. With the aim of identifying differences in this policy frameworks, we have analysed the MIPEX<sup>2</sup> 1.3 index for the period 2007-2010 which focuses on "Targeted Support for Labour Mobility". This index goes from 0 to 100, with lower values indicating more unfavourable policy frameworks for immigrants. As shown in table 1, according to these data, we can identify that nearly all new EU member states (EU-12) have unfavourable policies while in the old EU member states (EU-15) there are two clear groups of countries: one formed by Austria, Belgium, Greece, Ireland, Italy, Luxemburg and the United Kingdom with less favourable policies and a

<sup>&</sup>lt;sup>2</sup> http://www.mipex.eu/

second one formed by Germany, Denmark, Spain, Finland, France, Netherlands, Portugal and Sweden where policies are more favourable. Table 2 also shows that between 2007 and 2010 the situation has been fairly stable. In fact, only Austria will change from less favourable to more favourable policies at the end of the period. Looking at these two groups, it seems that, in general, immigrants have better access and targeted support in the established countries of immigration. Likewise, the countries that restrict access are not usually the ones that try to take advantage of immigrants' specific skills.

Table 1. Different policy frameworks supporting labor market mobility

MIPEX 1.3. TARGETED SUPPORT FOR LABOR MARKET MOBILITY (average value 2007-2010)	EU15	EU12
Critically unfavourable (0) Unfavourable (1-20) Slightly Unfavourable (21-40)	AT (25), BE (37.5), GR (0), IE (18.8), IT (25.0),LU (6.3), UK (25)	BG (25), CY (12.5), CZ (12.5), HU (12.5), LT (25), LV (12.5), MT (12.5), PL (12.5), RO (37.5), SI (18.8), SK (0)
Halfway favourable (41-59) Slightly favourable (60-79) Favourable (80-100)	DE (87.5), DK (68.8), ES (50), FI (62.5) FR (62.5), NL (75), PT (56.3), SE (100)	EE (62.5)

Austria (AT); Belgium (BE); Bulgaria (BG); Cyprus (CY); Czech Republic (CZ); Germany (DE); Denmark (DK); Estonia (EE); Spain (ES); Finland (FI); France (FR); Greece (GR); Hungary (HU); Ireland (IE); Italy (IT); Lithuania (LT); Luxembourg (LU); Latvia (LV); Malta (MT); Netherlands (NL); Poland (PO); Portugal (PT); Romania (RO); Sweden (SE); Slovenia (SI); Slovak Republic (SK); United Kingdom (UK)

Source: Own elaboration from MIPEX

Table 2. Changes in policy frameworks supporting labor market mobility between 2004 and 2010

MIPEX 1.3. TARGETED SUPPORT FOR LABOR MARKET MOBILITY Change between 2007 and 2010	EU15	EU12
Unfavourable change	IE (-12.5)	SI (-12.5)
No significant change	BE, DE, ES, FI, FR,	BG, CY, CZ, EE, HU,
No significant change	GR, IT, NL, SE, UK	LT, LV, MT, PL, RO, SK
Favourable change	AT (50), DK (3.5), LU (12.5)	

Austria (AT); Belgium (BE); Bulgaria (BG); Cyprus (CY); Czech Republic (CZ); Germany (DE); Denmark (DK); Estonia (EE); Spain (ES); Finland (FI); France (FR); Greece (GR); Hungary (HU); Ireland (IE); Italy (IT); Lithuania (LT); Luxembourg (LU); Latvia (LV); Malta (MT); Netherlands (NL); Poland (PO); Portugal (PT); Romania (RO); Sweden (SE); Slovenia (SI); Slovak Republic (SK); United Kingdom (UK)

Source: Own elaboration from MIPEX

Taking this into account, our objective is to test if returns to human capital (and, in particular, to formal education) are more similar between native and immigrants in countries with more favourable policies than in those with less favourable ones. The analysis of the impact of migration policies is not an easy task. As surveyed by Czaika and de Haas (2011), the scarce quantitative empirical literature finds rather unambiguous evidence that restrictive immigration policy measures do have significant effects on the magnitude and composition of immigration flows targeted by such policies. So far, empirical tests on the effectiveness of policy interventions, or more precisely, their qualitative-directional and quantitative-numerical effects on stocks or flows of different types of migrants, have basically used a migration policy dummy variable measuring the effect of the implementation of a particular type of policy or a country year-dummy dummy indicating the year in which any migration policy change has occurred. In this paper, we will use a similar approach that could be interpreted as a difference-in-difference estimator. In fact, we will carry out separate analysis for the two different groups of countries distinguishing between old and new EU member states. In particular, using cross-sectional microdata from the EU-SILC, we estimate separate Mincer equations for the three groups of countries. Our results show that wage differentials between immigrant and natives are lower in those countries with more favourable policies, but this is the result of a better relative situation of medium-skilled workers and not of highly-qualified ones. In any case, the wage gap for immigrants in EU-15 countries is clearly lower than for those arriving at EU-12 countries. However, although our results suggests that these policies do have some effects on immigrants' labour market integration, we have to admit that it is not possible to disentangle which part of the effect is due to this particular measure, to other migration policy or even to 'non-migration policies'.

The rest of the paper is structured as follows: first, in section 2, data sources are described and some descriptive evidence is presented; next, in section 3 the methodology and the empirical results are shown, while last, section 4 concludes with some final remarks.

#### 2. DATA SOURCES AND DESCRIPTIVE EVIDENCE

To conduct our analysis, we use the most recent waves of the EU Statistics on Income and Living Conditions (EU-SILC) which provide comparable microdata for the member states of the European Union. In particular, the EU-SILC cross sectional files for 2004, 2005, 2006, 2007, 2008, 2009 and 2010 are used in our empirical analysis. Although the dataset provides information for 26 EU countries (Malta is not included) plus Iceland and Norway, only 22 EU countries will be considered. In particular, we exclude from the analysis Bulgaria, Poland, Romania and the

Slovak Republic because the presence of immigrants is very low. We have also decided to consider data for 2004 although data is only available for a few countries and to keep Cyprus and Ireland although no information is available for 2010 at the moment of carrying out our analysis. Data for Latvia for 2005 and 2006 is also incomplete, but it is also included in our analysis.

EU-SILC provides detailed information on foreign-born, education, wages and other personal and job characteristics that make it an appropriate data set for our study. We have chosen to focus our analysis on employees between 16 and 65 years old not currently involved in education and working full time

Regarding variables related to human capital, we focus our attention in the role of formal education, although we also control for potential experience including age and the squared of age as explanatory variables in our model. One shortage of the EU-SILC database is that it does not provide information about the age at arrival to the host countries that would have permitted to calculate years since migration and to differentiate actual experience in the home and in the host countries. Coming back to formal education, instead of converting the information on educational levels available in the EU-SILC into schooling years, we have chosen to construct three different educational levels: no education, primary education and low-secondary education; upper-secondary education and tertiary education. Our objective is to minimize the potential measurement errors when converting information from different educational systems (not only among EU countries but also between the different home countries of immigrants) into schooling years.

Regarding the measurement of the earnings variable, for all of the analysed countries we use the variable "Cash or near cash income received in the main and any secondary or causal jobs including social contributions and income taxes" which reflects gross income. However, the collected information between countries slightly varies. In particular, gross monthly wages are facilitated for Austria, Spain, Greece, Italy, Portugal and United Kingdom, while for the rest of countries data on gross annual wages is provided but we convert it to monthly wages. All monthly wages have been deflated using national indexes on purchasing power parities for actual individual consumption provided by Eurostat.

Descriptive statistics for main variables in our analysis are shown in Annex I. Table 3 shows some descriptive evidence of wage gaps between native and immigrants in the considered countries distinguishing between their level of studies and the policy framework.

Table 3. Average monthly wages and wage differentials between natives and immigrants by educational levels

		Native	Immigrant EU	Immigrant Non-EU	Diff Native-EU	Diff Native-Non EU
EU15	All	1948.6	2402.7	1673.4	23.3%	-14.1%
	Primary or lower secondary education	1407.5	1571.3	1245.4	11.6%	-11.5%
	Upper-secondary education	1762.1	1842.3	1449.4	4.6%	-17.7%
	Tertiary education	2583.6	3563.7	2524.6	37.9%	-2.3%
EU15	All	1788.2	1779.2	1337.2	-0.5%	-25.2%
favourable	Primary or lower secondary education	1258.2	1403.4	1111.7	11.5%	-11.6%
policies	Upper-secondary education	1540.9	1492.6	1152.6	-3.1%	-25.2%
	Tertiary education	2389.5	2325.2	1790.3	-2.7%	-25.1%
EU12	All	724.1	1017.6	565.9	40.5%	-21.9%
	Primary or lower secondary education	645.8	910.1	501.1	40.9%	-22.4%
	Upper-secondary education	573.1	901.7	358.5	57.3%	-37.4%
	Tertiary education	1161.6	1379.8	910.7	18.8%	-21.6%

As we can see from this table, wage differentials are very different when comparing the situation of immigrants from EU countries with those from non-EU countries. The wage gap is positive in nearly all cases for the first group, while for the second group is clearly negative. Surprisingly, the wage gap is higher in those EU-15 countries with more favourable policies and it does not clearly decrease with the level of studies. However, as these are raw wage differences, no conclusion can be derived from this table. We need to isolate the effect of personal and job characteristics on wages before we can extract any conclusion from these figures.

#### 3. METHODOLOGY AND RESULTS

The model used in this section to analyse the native-immigrant wage gap is a semi-logarithmic Mincerian wage equation with the form:

$$w_i = \alpha + \beta_1 \cdot sch_i + \beta_2 \cdot age_i + \beta_3 \cdot age_i^2 + \gamma \cdot X_i + \varepsilon_i$$
 (1)

where  $w_i$  corresponds to the logarithm of the monthly wage for individual i,  $sch_i$  represent the different dummy variable associated to educational levels (primary and low-secondary studies is taken as the reference category), the variable  $age_i$  denotes the age of the individual and  $age_i^2$  its squared, as is usual in the literature.  $X_i$  is a vector that represents other individual characteristics which have an influence on wages such as gender, marital status, and so on, while  $\varepsilon_i$  is a random error term.

Table 4 shows the result of estimating equation on the sample described in the previous section, treating the logarithm of monthly wages as the endogenous variable. As can be seen in the first column of this table studies have a positive and significant effect on native and immigrant wages when working with all the considered countries in our analysis. An individual with upper-secondary education earns a 20% more than an individual with primary education, while this gap increases up to 60% when considering a worker with tertiary education. Age, acting as a proxy of potential experience, has a positive effect: each year increases wage around 6%, although there is an upper limit to the returns to the experience as indicated by the negative sign of the age squared. According to this estimate, the wage gap between immigrant and natives is above 15%. When introducing additional controls related to the job characteristics (permanent/temporary contract, occupational dummies and activity sectors), the returns to experience and to education decrease but are still positive and significant. The wage gap is now around 8%, a lower value than in the

previous specification. This result can be interpreted as clear evidence of job segregation of immigrants in the European Union. When the sample of countries is divided between old and new EU member states (columns 3 and 4), we can see that the returns to tertiary education are higher in EU12 countries than in EU15 countries in relative terms, but the wage gap between native and immigrants is also higher.

Table 5 shows the results of estimating model (1) for the two groups of EU15 countries. The previous model is also enlarged with the interaction between the "immigrant dummy" and the variables associated to the different educational levels. With this new specification, we can capture potential differences between native and immigrants in returns to human capital and see whether these differences are lower in those countries with more favourable legislations. Looking at results in table 5, we can see how wage differentials between native and immigrants once personal and job characteristics are controlled are lower in those EU15 countries with more favourable policies than in those with less favourable policies: 4% and 10%, respectively. However, the augmented model (columns 2, 4 and 5 for the EU12 countries) show that most qualified workers are less benefited by more migrant-friendly legislations.

Tables 6 and 7 provide a similar analysis but distinguishing between immigrants from EU countries and for immigrants from non-EU countries. After correcting for composition effects, wage differentials are of a similar size for immigrants from EU and non-EU countries. However, there are clear differences when we look at low and high qualified workers and we take into account the different legislation frameworks. For immigrants from the EU now living in other EU15 countries with favourable policies, wage differences are not significant for all workers, although for high qualified workers a 3% wage gap still remains. This is not the case in EU15 countries with less favourable policies where there is 12% wage gap between immigrants and natives and much more intense for low qualified workers, a similar result to the one obtained for EU immigrants in the new EU member states. The results in table 7 for non-EU immigrants provide a similar picture, although wage gaps are higher.

In summary, our results show that wage differentials between immigrants and natives are lower in those countries with more favourable policies, but this is the result of a better relative situation of medium-skilled workers and not of highly-qualified ones. In any case, the wage gap for immigrants in EU-15 countries is clearly lower than for those arriving at EU-12 countries.

Table 4. Pooled OLS estimates of the Mincer equation 2004-2010 – All immigrants

	(1)	(2)	(3)	(4)
	All countries	All countries	EU15 countries	EU12 countries
	Coeff.	Coeff.	Coeff.	Coeff.
Male	0.271***	0.234***	0.215***	0.274***
Single	-0.027***	-0.029***	-0.031***	-0.042***
Married	0.063***	0.042***	0.045***	0.032***
Age	0.062***	0.054***	0.056***	0.053***
Age Squared	-0.001***	-0.001***	-0.001***	-0.001***
Household size	-0.024***	-0.014***	-0.014***	-0.015***
Dependent children	0.039***	0.021***	0.019***	0.014***
Upper-secondary education	0.200***	0.095***	0.112***	0.086***
Tertiary education	0.582***	0.256***	0.248***	0.319***
Immigrant	-0.153***	-0.081***	-0.072***	-0.091***
Constant	5.920***	6.119***	6.076***	5.767***
Observations	783438	783438	561629	221809

Model (1) also includes country and time fixed-effects.

Models (2), (3) and (4) also include control variables related to permanent/temporary contracts, occupations (27 groups), activity sector (14 industries) and country and time fixed effects.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Table 5. Pooled OLS estimates of the Mincer equation 2004-2010 – All immigrants

	(1)	(2)	(3)	(4)	(5)
	EU15 countries with favourable policies		EU15 cou	EU15 countries with	
			non favoura	countries	
	Coeff.	Coeff.	Coeff.	Coeff.	Coeff.
Male	0.225***	0.225***	0.202***	0.201***	0.274***
Single	-0.040***	-0.040***	-0.027***	-0.028***	-0.042***
Married	0.044***	0.044***	0.048***	0.048***	0.031***
Age	0.067***	0.067***	0.040***	0.040***	0.053***
Age Squared	-0.001***	-0.001***	-0.000***	-0.000***	-0.001***
Household size	-0.015***	-0.015***	-0.017***	-0.017***	-0.015***
Dependent children	0.017***	0.017***	0.025***	0.026***	0.014***
Upper-secondary education	0.116***	0.121***	0.104***	0.096***	0.089***
Tertiary education	0.227***	0.234***	0.281***	0.255***	0.330***
Immigrant	-0.040***		-0.103***		
Immigrant x Primary or low-secondary		0.014*		-0.163***	-0.060***
Immigrant x Upper-secondary education		-0.044***		-0.128***	-0.070***
Immigrant x Tertiary education		-0.079***		-0.009	-0.158***
Constant	5.877***	5.872***	6.403***	6.416***	5.766***
Observations	335811	335811	225818	225818	221809

All models also include control variables related to permanent/temporary contracts, occupations (27 groups), activity sector (14 industries) and country and time fixed effects.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Table 6. Pooled OLS estimates of the Mincer equation 2004-2010 – Immigrants from other EU countries

	(1)	(2)	(3)	(4)	(5)	(6)
	EU15 countries		ntries with		ntries with	EU12
		favourab	le policies	non favoura	able policies	countries
	Coeff.	Coeff.	Coeff.	Coeff.	Coeff.	Coeff.
Male	0.216***	0.227***	0.228***	0.201***	0.200***	0.270***
Single	-0.034***	-0.042***	-0.042***	-0.031***	-0.032***	-0.041***
Married	0.044***	0.043***	0.043***	0.047***	0.047***	0.032***
Age	0.057***	0.069***	0.069***	0.042***	0.042***	0.055***
Age Squared	-0.001***	-0.001***	-0.001***	-0.000***	-0.000***	-0.001***
Household size	-0.013***	-0.014***	-0.014***	-0.016***	-0.015***	-0.015***
Dependent children	0.017***	0.014***	0.014***	0.024***	0.025***	0.009***
Upper-secondary education	0.116***	0.117***	0.119***	0.113***	0.101***	0.097***
Tertiary education	0.257***	0.233***	0.235***	0.293***	0.268***	0.340***
Immigrant	-0.077***	0.002		-0.121***		
Immigrant x Primary or low-secondary			0.083***		-0.249***	-0.055**
Immigrant x Upper-secondary education			-0.020*		-0.138***	-0.031**
Immigrant x Tertiary education			-0.031**		-0.006	-0.086***
Constant	6.031***	5.030***	5.029***	6.342***	6.351***	5.063***
Observations	531820	320916	320916	210904	210904	206566

All models also include control variables related to permanent/temporary contracts, occupations (27 groups), activity sector (14 industries) and country and time fixed effects.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Table 7. Pooled OLS estimates of the Mincer equation 2004-2010 – Immigrants from non-EU countries

	(1)	(2)	(3)	(4)	(5)	(6)
	EU15 countries		ntries with		ntries with	EU12
		lavourab	le policies	non ravoura	able policies	countries
	Coeff.	Coeff.	Coeff.	Coeff.	Coeff.	Coeff.
Male	0.213***	0.225***	0.225***	0.196***	0.196***	0.274***
Single	-0.034***	-0.040***	-0.040***	-0.034***	-0.034***	-0.043***
Married	0.046***	0.045***	0.045***	0.049***	0.049***	0.030***
Age	0.056***	0.068***	0.068***	0.041***	0.040***	0.053***
Age Squared	-0.001***	-0.001***	-0.001***	-0.000***	-0.000***	-0.001***
Household size	-0.014***	-0.015***	-0.015***	-0.018***	-0.018***	-0.014***
Dependent children	0.019***	0.016***	0.016***	0.026***	0.026***	0.013***
Upper-secondary education	0.109***	0.118***	0.122***	0.095***	0.097***	0.090***
Tertiary education	0.245***	0.230***	0.235***	0.267***	0.264***	0.332***
Immigrant	-0.084***	-0.064***		-0.112***		
Immigrant x Primary or low-secondary			-0.008		-0.112***	-0.259***
Immigrant x Upper-secondary education			-0.066***		-0.142***	-0.168***
Immigrant x Tertiary education			-0.116***		-0.062***	-0.167***
Constant	6.073***	5.868***	5.864***	6.418***	6.417***	5.761***
Observations	536473	327806	327806	208667	208667	208200

All models also include control variables related to permanent/temporary contracts, occupations (27 groups), activity sector (14 industries) and country and time fixed effects.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

#### 4. FINAL REMARKS

The aim of this paper was to quantify immigrant-native wage gaps in the European Union countries putting special attention to the role of favourable or unfavourable policies supporting the labour market integration of recently arrived immigrants. The main channel through we argue these policies improve the relative situation of immigrants in the labour market is human capital transferability.

In order to identify countries with more favourable policies for the labour market integration of immigrants, in a first step we have used data from MIPEX to identify two clear groups of countries: one formed by Austria, Belgium, Greece, Ireland, Italy, Luxemburg and the United Kingdom with less favourable policies and a second one formed by Germany, Denmark, Spain, Finland, France, Netherlands, Portugal and Sweden where policies are more favourable. In a second step, we have used microdata for the EU Statistics on Income and Living Conditions (EU-SILC) to estimate separate Mincer equations for these three groups of countries. Our results show that wage differentials between immigrants and natives are lower in those countries with more favourable policies, but this is the result of a better relative situation of medium-skilled workers and not of highly-qualified ones. In any case, the wage gap for immigrants in EU-15 countries is clearly lower than for those arriving at EU-12 countries.

From a policy perspective, the obtained results suggest that policies that try to improve the situation of immigrants in the labour market of the host country seem to have a positive effect, although only for some particular groups of immigrants. However, we have to recognise that it is not possible to disentangle which part of the effect is due to this particular measure, to other migration policy or even to 'non-migration policies'. Further research should be devoted to identify proper econometric strategies to deal with this identification issue.

#### 5. REFERENCES

Czaika, M., de Haas, H. (2011), "The effectiveness of immigration policies. A conceptual review of empirical evidence", DEMIG project paper no. 3.

Dustman, C., Glitz, A. (2011), "Migration and Education" in Hanushek, Machin Woessmann (ed.), Handbook of the Economics of Education, Volume 4, chapter 4, pp 327-441.

Sanromá, E., Ramos, R., Simón, H. (2009), "Immigrant Wages in the Spanish Labour Market: Does the Origin of Human Capital Matter?," IZA DP 4157.

### ANNEX I. DESCRIPTIVE STATISTICS

Variables	Mean	Standard Deviation
Monthly wage (PPP adjusted)	1,611	1,650
Immigrant	0.0895	0.285
Male	0.588	0.492
Married	0.724	0.447
Age	41.00	10.93
Age squared	1,800	894.4
Household size	3.222	1.321
Dependent children	0.538	0.499
Primary or low-secondary education	0.205	0.404
Upper-secondary education	0.492	0.500
Tertiary education	0.303	0.460
Permanent contract	0.752	0.432
Austria (AT)	0.0336	0.180
Belgium (BE)	0.0289	0.168
Cyprus (CY)	0.0216	0.146
Czech Republic (CZ)	0.0539	0.226
Germany (DE)	0.0553	0.229
Denmark (DK)	0.0460	0.209
Estonia (EE)	0.0386	0.193
Spain (ES)	0.0806	0.272
Finland (FI)	0.0660	0.248
France (FR)	0.0634	0.244
Greece (GR)	0.0310	0.173
Hungary (HU)	0.0482	0.214
Ireland (IE)	0.0174	0.131
Italy (IT)	0.111	0.314
Lithuania (LT)	0.0302	0.171
Luxembourg (LU)	0.0291	0.168
Latvia (LV)	0.0205	0.142
Netherlands (NL)	0.0382	0.192
Portugal (PT)	0.0320	0.176
Sweden (SE)	0.0471	0.212
Slovenia (SI)	0.0700	0.255
United Kingdom (UK)	0.0370	0.189
EU15	0.717	0.451
EU15 favourable policies	0.429	0.495
EU12	0.283	0.451
2004	0.0901	0.286
2005	0.137	0.343
2006	0.151	0.358
2007	0.160	0.367
2008	0.161	0.368
2009	0.155	0.362
2010	0.146	0.353
Observations		783,438