

Effects of the economic crisis on employment among the immigrant population in the Basque Country: an analysis by qualification and geographical origin for males and females

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Resumen

En este artículo se ha realizado un estudio sobre las tasas de ocupación de la población inmigrante en el País Vasco en un periodo de expansión económica y otro de recesión. El objetivo ha consistido en analizar el comportamiento de la ocupación de la población inmigrante durante la crisis. Independientemente de su sexo, origen o cualificación, al final de la crisis la tasa de ocupación de los inmigrantes es menor que la de la población vasca, con la única excepción de las mujeres de procedencia americana. Las mujeres inmigrantes se han visto menos afectadas por la crisis que los hombres siendo la segregación sectorial la causa que ha podido tener un mayor peso a la hora de explicar la caída en la brecha de género en la ocupación. Con respecto al país de origen y el nivel de estudios son los trabajadores africanos y los de estudios primarios, foráneos y autóctonos, los grandes damnificados por la crisis.

Palabras clave: Inmigración; tasa de ocupación; nivel de estudios; género; crisis económica.

Abstract

In this paper we study employment rates among the immigrant population in the Basque Country in a period of economic expansion and in a recession. The objective is to analyze how employment among the immigrant population behaved during the crisis. Regardless of their sex, origin or qualifications, at the end of the crisis the employment rate among immigrants was lower than among the local-born Basque population, with the sole exception of women from the Americas. Immigrant women were less affected by the crisis than men. Sectoral segregation is probably the main cause of the fall in the gender gap in employment. With regard to country of origin and level of education, African workers and those with only basic studies (foreign and local-born alike) were hit hardest by the crisis.

Key words: Immigration; employment rate; education level; gender; economic crisis.

INTRODUCTION

The Basque Country is a Spanish region located at the northeastern end of the Cantabrian coast. It borders to the north on the Cantabrian Sea and France, and to the south, east and west on other Spanish regions. Although it has not traditionally been a recipient region for immigrants it has, like the rest of Spain, become an important destination for foreign immigrants in recent years, albeit to a lesser extent and somewhat later than other Spanish regions. This high influx of immigrants has great economic and demographic impacts.

The Basque Government's Basque Immigration Observatory (Ikuspegi, 2015) has analyzed the impact of foreign immigration in the Basque Country in both economic and demographic terms, based on official data and figures. Regarding economic impact, the study concludes that in both 2008 and 2012, despite the economic crisis, the revenues generated by foreign nationals for the public coffers exceeded the costs that they incurred for the welfare system. The study also concludes that their demographic impact has been positive in all dimensions. Foreign immigration has halted the loss of population that the Basque Country has suffered since the 1980s, offsetting the drop in the native population and permitting population growth. In 2005 the percentage of foreign nationals in the population of the Basque Country was 3.4%, in 2008 it was 5.4% and in 2012 it was 6.3%, which means that it almost doubled between 2005 and 2012. In summary, the natural growth of the population of the Basque Country can be attributed to the demographic contribution of the foreign-born population.

After a long period of economic expansion, in 2008 the Basque economy, like the Spanish and other world economies, began a period of recession, with major drops in production and destruction of employment, sharply affecting employment rates among the population. The Gross Domestic Product (GDP) of the Basque Country in 2005 was 55,943,878 million euros, in 2008 it was 66,178,518 million euros, and in 2012 64,262,023 million euros. In this paper we study the period 2005-2008, which includes a period of economic expansion, and the subsequent 2009-2012 economic recession period.

The paper seeks to assess how the economic recession affected the immigrant population in the Basque Country, with special emphasis on changes in employment rates among non-nationals during the economic crisis,

differentiating the two periods (2005-2008 and 2009-2012). Employment is a critical factor for the well-being of immigrant families, especially in times of crisis, when public aid falls and work is the main, if not the only, source of income. In addition, falls in employment during periods of crisis tend to be more adverse in the most vulnerable segments of the population such as immigrants or women. Therefore, we seek to analyze the extent to which the recession harmed immigrants more than the native population in the labor market, focusing on the differential impact according to education level and region of origin for males and females.

The paper is structured as follows. The next section reviews studies of the links between employment, sex and education level in times of crisis. The data used in the analysis is described below. The trends of the immigrant population in the Basque Country and their employment rates are then analyzed according to the different characteristics of the workers. The final section offers some conclusions.

THEORETICAL AND EMPIRICAL FRAMEWORK

Most research on past economic crises and on the current great recession tends to point to three possible explanations for the vulnerability of different groups to economic downturns: i) differences in exposure to the shock; ii) firms' employment decisions during a downturn; and iii) workers' labor market behavior in response to declines in household income (Cho & Neuhouse, 2013).

Differences in exposure to the shock

Economic downturns usually have more adverse implications for vulnerable segments of the population such as young people, migrants and women. The recent recession was clearly unusual in that, unlike its predecessors, male workers were hit harder by the downturn in terms of unemployment, probably due to the economic sectors in which they were employed. Employment rate decrease has been much larger for males, where industry and construction were the sectors of economic activity most affected by the crisis period for this group, than for females, mostly in the sector of services economic activity, which only slightly affected by the crisis. This behavior is quite common in European labor markets, as can be seen in, for example, the different papers included in the book Eydoux-etal (2014), where a specific analysis for the Spanish job market is also included (Peña-Boquete 2014). Moreover, these conclusions are still valid even if we only concentrate on the immigrant population (Farris 2015). Higher education has also

been a sort of anti-crisis shield. Migrants with higher levels of education suffered smaller falls in employment (see, for example, Psacharopoulos & Patrinos, 2002, for a review of the empirical literature). Finally, different ethnic groups of immigrants may find different advantages/disadvantages depending on their cultural similarity to the native population (segmented assimilation model, Portes & Zhou, 1993). Therefore the region of the origin of immigrants could be an important factor in explaining different labor market outcomes.

Firms' employment decisions

Firms' perceptions of the productivity of different types of worker could affect their chances of finding work. Workers with low or medium levels of education could be seen as less productive than those with higher levels of education, which could lead firms to shed such workers first. This perception could affect migrant workers too. For example, Chaloff-etal (2012) suggests that "when there is an abundance of job applicants mastery of the host-country language may be used more extensively as a screening criterion by employers". Labor market regulations could also be an important factor. Migrants, being new to the labor market, usually have less secure contractual arrangements and often have fixed-term contracts (at the onset of the crisis in Spain almost half of all immigrants had such contracts).

Workers' labor market behavior

This category covers the added worker effect, the increase in female labour-market participation to offset the loss of family income. Therefore, the female labor force is frequently countercyclical (Sabarwal-etal 2011).

As mentioned, these three factors link sex, education, region of origin and the economic sector in which immigrants work with vulnerability to the economic downturn. Throughout this study we analyze the different occupation rates of the migrant population with respect to these characteristics.

DATA

The analysis is conducted with two data sources: Our data come from EUSTAT, the Basque Institute of Statistics, (EUSTAT, 1986), and they form the basis for the so-called Survey on the Population in Relation to Activity (Encuesta Continua de Población en Relación con la Actividad, PRA), which is published quarterly by EUSTAT. The database includes 32

quarterly periods (i.e. eight years), from the first quarter of 2005 (2005-I) to the last quarter of 2012 (2012-IV). One of the most interesting characteristics of this database is that it is based on a continuous probabilistic sample, i.e. it includes a panel of households that is continuously changing or, more specifically, continuously being updated. The current PRA sample comprises approximately 5000 households per quarter (a total of approximately 13,500 individuals), and a so-called rotation or household update of one eighth from one quarter to the next. That is, the same household remains in the sample for eight quarters (i.e. two years) and is then replaced or leaves the sample.

The database also includes a large number of variables that can classified into different categories: demographic, family/household and social characteristics; variables related to the educational levels of individuals; variables related to job activity or type; variables related to activities unrelated to the jobs that individuals hold; and variables related to job search activities by individuals and their availability for work. In all the database includes 33 different variables measured over the 32 available quarterly periods under study, making a total of about 13,500 individuals per quarter. In this case we use only a small part of the database, but one which is interesting in itself, to analyze various aspects of the Basque labor market (Oguiza *et al.*, 2012). We decided to work with annual data to obtain an overall view of trends in the employment rate from 2005 to 2012, so we average the quarterly data. Thus, we have created data for 8 periods from 2005 to 2012. Additionally, we believe that this period is interesting in itself, since it includes the end of a period of economic expansion and the onset of an economic crisis, in 2008, which persisted at the end of our sample period in 2012.

However, the database provides no information on the nationality of workers. We consulted EUSTAT and were told that it is not possible to provide this information due to their confidentiality rules. We therefore consulted another source of statistics – the Spanish National Institute of Statistics – which publishes a quarterly Active Population Survey. This data source provides male and female employment rates for different educational levels broken down by geographical origin. In this paper we calculate the employment rate of male and female immigrants from Europe, the Americas, Africa and Asia on the one hand and compare them with the equivalent groups in the Basque Country. On the other hand, we obtain the employment rate disaggregated by education level for immigrants from Europe and America. The sample is quite small for African and Asian im-

migrants, to the extent that we considered that it was not reliable, so we do not consider these groups. Finally, despite having annual data for 2005-2012, we decided to focus the analysis on the effect of higher education on male and female employment rates in times of economic expansion compared to the period of economic recession. We therefore divided the sample period into two: 2005-2008 (which we will call the Pre-Crisis Period) and 2009-2012 (the Crisis Period). The objective, therefore, is to compare employment rates among the immigrant population (European, American, African and Asian) and the local-born population of the Basque Country in a period of economic expansion (2005-2008) and one of recession (2009-2012). We also run analyses for males and females and different education levels of individuals.

EMPIRICAL ANALYSIS

Changes in the immigrant population of the Basque Country

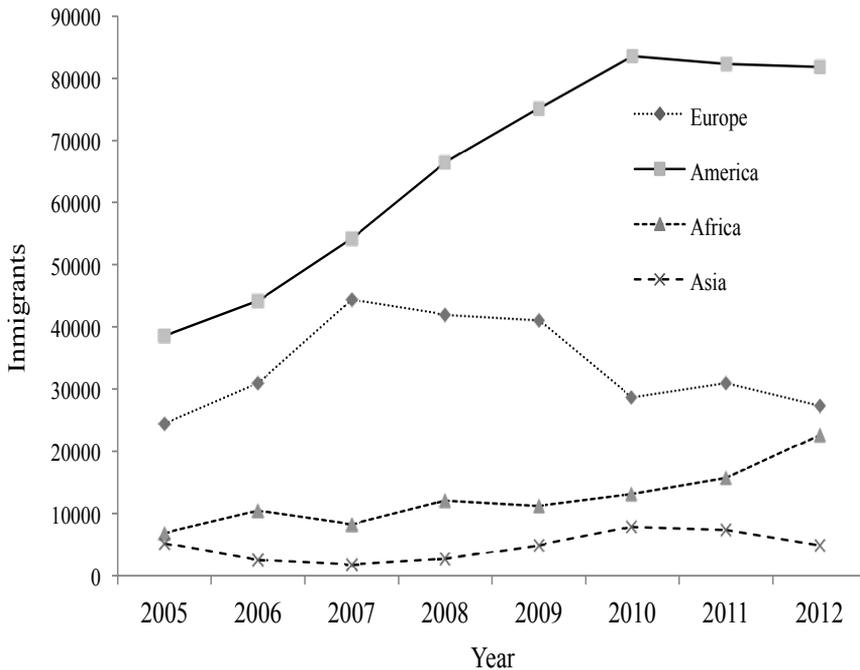
First, it is interesting to analyze the changes in the numbers of immigrants aged over 16 in the Basque Country from 2005 to 2012. Figure 1 shows the number of immigrants coming to the Basque Country from Europe, the Americas, Africa and Asia.

In the period 2005-2007, the number of European immigrants increased considerably, then fell slightly in 2007-2009 and more sharply in 2009-2010, so the number of European immigrants in the Basque Country in 2012 was slightly higher than in 2005.

By contrast there were 38,594 immigrants from the Americas in the Basque Country in 2005, and 81,815 in 2012, so in the period studied immigration from the Americas doubled. There was a considerable increase in American immigrants in 2005-2010, so the influx of people from this area continued to increase during the crisis (though it decreased slightly in 2010-2012). Among African immigrants there does not seem to be any decreasing pattern in line with the economic crisis: in 2005 there were 6,895 and in 2012 there were 22,633, so overall the number of African immigrants trebled during that period. Finally, Asian immigration was low and remained very stable throughout the period.

Therefore, it can be said that most immigrants in the Basque Country come from the Americas, followed by Europeans and, at some distance, by Africans and Asians.

Figure 1: Changes in the number of Immigrants in the Basque Country in 2005-2012



Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Additionally, the information in Figure 1 can be supplemented based on the statistics on migratory movements published by EUSTAT and Aierdi (2014), clarifying the origins of immigrants. In 2005 half of the foreign nationals who came to the Basque Country were from the Americas, mainly Colombia and Ecuador; a quarter were Europeans (mostly Portuguese) and about a fifth came from Africa (more than half of them Moroccans). The remaining 8% were Asians, mostly Chinese. However, by 2010 the mix of nationalities among foreign immigrants to the Basque Country was different. On the one hand, the Maghrebi population was increasing in both absolute and relative terms, while the number of Europeans decreased. Among European immigrants, Romanians must be mentioned in particular: Romania became part of the European Union on January 1, 2007. Since then, the Romanian population has become the biggest group of European immigrants. Among immigrants from the Americas, those from Colombia and Ecuador were already established, while the number of Bolivians in-

creased sharply then slowed. The cases of immigrants from, e.g., Paraguay or Nicaragua are similar to that of the Bolivians, with the difference that the increase in numbers among these latter two was less sharp because the time of arrival was economically less favorable. As regards Asian immigrants, it should be noted that historically the Chinese have been the most numerous group in absolute terms but in recent years the number of Pakistanis has begun to rise (Aierdi, 2014).

EMPLOYMENT RATES

Male and female employment rates for different places of origins

First we study the employment rate among the local-born Basque population in 2005-2012. Employment rates are computed using the method applied by the Basque Institute of Statistics (EUSTAT), i.e. by dividing the number of employed individuals by the number of individuals available in the population aged 16-64. This is done so that results can be compared directly with the employment rates reported by the European Institute of Statistics (EUROSTAT), which computes them for the population aged 15-64. To compare results from EUROSTAT directly with those presented here, we include the relevant information in Table 1, where the male and female employment rates for 2005 and 2012 are reported. Table 1 shows that employment rates are similar for both sources.

Table 1: Male and female employment rates for the years 2005 and 2012

	2005		2012	
	Male	Female	Male	Female
Own source	74.7	53.0	66.3	57.3
EUROSTAT	76.4	54.6	66.9	58.1

Sources: EUROSTAT and our own source.

In Table 2, we analyze male and female employment rates in the Basque Country and among the immigrant populations from Europe, the Americas, Africa and Asia in Pre-Crisis Period (2005-2008) and the Crisis Period (2009-2012). The data are shown in Table 2. Specifically, we wish to check for any significant differences between the male and female employment rates in order to analyze whether the crisis affects each group differently.

The male employment rate in the Basque Country was 75% in the Pre-Crisis Period and dropped to just over 69% after the crisis. Therefore, Basque men were hard hit by the economic recession. The same does not

happen among Basque women: before the crisis female employment stood at 55% (20 points less than for men), but after the crisis a slightly higher employment rate was recorded of just over 57%. Opposing shifts therefore occurred among Basque women and men in work during the economic crisis, with the figure for women increasing slightly while for men it decreased. In fact, this reflects the trend in the Basque economy over the last 20 years, with the progressive incorporation of more women into the labor market, and their ability to better resist periods of recession (Oguiza *et al.*, 2004).

Table 2: Male and female employment rates for different origins

	Basque Country		Europe		America		Africa		Asia	
	M	F	M	F	M	F	M	F	M	F
Pre-Crisis	74.9	55.4	73.0	55.2	62.5	62.9	81.3	31.2	68.8	49.0
Crisis	69.2	57.3	67.8	53.6	56.9	61.6	43.3	11.7	77.5	77.5

Note: (M: Male, F: Female). Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Next, we analyze the immigrant population in the Basque Country, to see if it follows a pattern similar to the native population or not. Among European immigrants the employment rate among men was 18 points higher than among women in the Pre-Crisis Period (at 73% and 55% respectively). This gap narrowed to 14 points during the recession (almost 68% and 54% respectively). Although a decrease is observed in the employment rates for both men and women, female European workers are less affected. Accordingly, it can be concluded that the pattern of employment rates among the local-born Basque population and European immigrants is similar, as is the trend in the economic crisis.

Immigrant from the Americas stand out because the female and male employment rates in the period of expansion were practically the same (almost 63% and 62.5% respectively) and in the recession the gap increased, with the rate for women being almost 5 points higher than for men. It is interesting to note that the employment rate among American immigrant women is higher and among men both before and after the crisis, highlighting the feminization of employment from the Americas.

The figures for African and Asian immigrants must be treated with some caution, because the sample is small and slight changes have great effects. Among African immigrants a stand-out finding is that, unlike Ame-

ricans, the rate of employment is about 50 points higher among men than women in the Pre-Crisis period (over 81% compared to 31%). However, male African immigrants suffered greatly from the effect of the recession, with their employment rate dropping by 38 percentage points during the Crisis Period. The employment rate among African immigrant women did not fall as sharply (by almost 20 percentage points), but their initial employment rate was considerably lower. Thus, in the Crisis Period the employment rate among African men was over 43%, compared to under 12% among women. Among Asian immigrants the difference in the percentage of employed persons between men and women is not as great as among Africans. In the Pre-Crisis Period employment among men was almost 70% and among women it was 49% (a difference of almost 20 percentage points). This is the only group where the rates for both men and women improved in the recession during the Crisis Period.

After analyzing the rates of male and female employment in the Pre-Crisis and Crisis Periods among the local population of the Basque Country and immigrants from Europe, the Americas, Africa and Asia, we complete our analysis by looking at the numbers of immigrants coming to the Basque Country from different origins. This gives us absolute figures for the migratory movements of these groups. Table 3 show the trends in numbers of male and female immigrants. The noteworthy aspects of this information are as follows:

- First of all, among the immigrant population the only decrease in the numbers of both men and women from the period of expansion (2005-2008) to the Crisis Period (2009-2012) was among Europeans. By contrast, the number of American, African and Asian migrants increased despite the economic crisis suffered by the Basque Country from 2008 onwards.
- Among the different places of origin considered, immigration to the Basque Country from the Americas stands out. In addition, the feminization of the immigrant population is confirmed, with almost twice as many women as men in the Pre-Crisis period. Our study of the employed population reveals that the female employment rate was higher for American women and it was precisely these women who best resisted the effect of the crisis. This emphasizes the importance of immigration by women from the Americas to the Basque Country, and their ability to adapt during the recession. This is also confirmed by the fact that they make up the majority of the female immigrant population.

- The last relevant characteristic is the number of Asian immigrants, which is quite low for both men and women. In this case, it should be mentioned that the number of Asian immigrant men increased three-fold from the Pre-Crisis Period to the Crisis Period, and that of women increased slightly, showing no influence of the economic recession.

Table 3: Male and female immigrants for different origins

	Europe		America		Africa		Asia	
	M	F	M	F	M	F	M	F
Pre-crisis	17 410	18 058	19 194	31 674	6 535	2 886	1 446	1 645
Crisis	16 247	15 826	32 308	48 377	9 369	6 294	4 410	1 884

Note: (M: Male, F: Female). Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

The biggest group in terms of contribution to immigration is therefore that of women from the Americas: they account for a far greater proportion than other geographical origins and their contribution continued to increase even during the recession. In addition, American and Asian females have the highest employment rates and performed best in the economic crisis. The number of European immigrants fell during the recession, though here also female employment was less affected by the crisis. African immigrants are mainly male, and the employment rate among men is much higher than among women, although African men were also the group hardest hit by the economic crisis.

Given the results obtained so far, it is interesting to examine in which sectors of economic activity each group works, in order to better understand the trends of male and female employment rates in the Pre-Crisis and Crisis periods.

Male and female employment rates for different places of origin and economic activities

We now analyze the rates of male and female employment in the different geographical areas differentiating by the 4 major sectors of economic activity: Agriculture, Industry, Construction and Services. Tables, 4, 5, 6 and 7 show these rates.

An analysis by economic activities shows that overall men and women tend to work in different sectors. This applies to both those born in the Basque Country and immigrants, with certain nuances.

Table 4: Male and female employment rates for different origins and Agriculture economic activity

	Basque Country		Europe		America		Africa		Asia	
	M	F	M	F	M	F	M	F	M	F
Pre-crisis	1.4	0.5	2.3	0.0	3.1	0.2	5.9	2.5	0.0	0.0
Crisis	1.0	0.4	0.7	0.0	0.8	0.0	0.6	0.7	0.0	0.0

Note: (M: Male, F: Female). Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Table 5: Male and female employment rates for different origins and Industry economic activity

	Basque Country		Europe		America		Africa		Asia	
	M	F	M	F	M	F	M	F	M	F
Pre-crisis	26.4	8.4	13.6	0.6	10.1	1.3	33.1	0.0	1.9	6.9
Crisis	24.4	6.1	14.5	1.9	5.0	3.2	14.2	0.0	0.0	0.0

Note: (M: Male, F: Female). Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Table 6: Male and female employment rates for different origins and Construction economic activity

	Basque Country		Europe		America		Africa		Asia	
	M	F	M	F	M	F	M	F	M	F
Pre-crisis	9.1	1.5	33.5	0.0	18.7	0.1	16.0	0.0	11.1	0.0
Crisis	8.1	0.9	21.9	0.0	14.5	0.0	8.2	0.8	6.0	0.0

Note: (M: Male, F: Female). Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Table 7: Male and female employment rates for different origins and Services economic activity

	Basque Country		Europe		America		Africa		Asia	
	M	F	M	F	M	F	M	F	M	F
Pre-crisis	38.1	45.1	23.6	54.6	30.6	61.3	26.3	28.7	55.8	42.0
Crisis	35.7	49.9	30.8	51.7	36.5	58.5	20.2	10.2	71.5	77.5

Note: (M: Male, F: Female). Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Among local Basque workers, male employment is divided mainly between industry (26% before the crisis, with a fall of 2 percentage points in the crisis) and services (38%, with a fall of over 2 points in the recession). Basque women work primarily in the service sector (45% in the Pre-Crisis Period, with the noteworthy fact that employment among women increased by almost 5 points in the Crisis Period).

Among immigrants, European men work mainly in construction and services, and to some extent in industry. Before the economic recession 33.5% of European immigrant men worked in construction and almost 24% in the service sector. During the Crisis Period the numbers employed in construction fell by almost 12 percentage points, while in the service sector they rose by 7 points. European women work mainly in the service sector (54.6%, with a fall of 3%) and their presence in the other sectors is practically testimonial.

Among immigrant men from the Americas the pattern is similar to Europeans, though the employment rate before the crisis in the construction sector was lower at 19% and decreased by 4 points in the recession. In the service sector, it increased by 6 points. Women from the Americas follow the same pattern as European women, but with a higher employment rate: more than 61% were employed in services, with the figure falling by 3% with the crisis.

Among African men, employment is observed to be more widely distributed across the different sectors, but between the two periods studied it can be said to have collapsed in all of them. The employment rates in the Pre-Crisis and Crisis periods, respectively, were almost 6% in agriculture, dropping to 1%; 16% and 8% in construction; 33% and 14% in industry and, finally, 26% and 20% in services. In the case of African women, employment is basically in the service sector, which accounted for almost 29% before the crisis, with a major drop to 10% during the recession.

Finally, for the sake of consistency we present the results for citizens from Asia, but in this case the sample disaggregated by sex and sector of activity becomes very small, so the results must be taken with caution. Asian men are mainly involved in the service sector and, to a lesser extent, in construction. With the onset of the crisis their employment became more concentrated in services. Asian women are employed practically only in services, and their employment rate increased by 35 percentage points with the crisis.

An analysis of the employment rate per sector of economic activity helps explain why women in work have withstood the economic crisis bet-

ter than men. It is observed that men and women work in different sectors of economic activity; this crisis deeply affected construction and industry, where men are over-represented. The service sector is the activity that best resisted the onslaught of the recession. Before the economic crisis, female employment, among both the local population and immigrants, was concentrated in services, which explains the better relative situation of women than men. In fact, in the economic crisis period the service sector also became the main sector of male employment.

Employment rates for different origins and education levels

After analyzing male and female employment rates by geographical origin and sector of activity, we now move on to consider another relevant characteristic of individuals in work: Their level of education. We consider three levels: Primary School, High School and University. This is the classification used by both the Basque Statistics Institute and the Spanish National Institute of Statistics. We want to see whether higher levels of education are linked to higher employment rates among both the local-born population of the Basque Country and individuals from the different geographical areas considered.

The population census for African and Asian immigrants broken down by level of studies gives quite a small sample, and we believe that this could affect our analysis (as explained later and shown in Table 9). Therefore, we have decided to compare individuals born in the Basque Country with immigrants from Europe and the Americas.

Table 8 show the trend in the employment rates of individuals born in the Basque Country and of immigrants from Europe and the Americas, disaggregated by the level of education of each individual.

First, we consider it of interest to study within each group of geographical origin whether different levels of education affect employment rates differently. Among the local-born Basque population it is the individuals with higher levels of education who are observed to resist the crisis best in terms of employment, maintaining their employment rates in the Crisis Period. Among immigrants of European origin, university graduates suffer the effects of the recession (with a fall of 8.6 percentage points) and it is individuals with high-school education who perform best, increasing their employment rate by more than 3%. Finally, among immigrants from the Americas, both those with high-school and university studies are observed not to suffer much in the economic downturn.

Table 8: Male and female employment rates for different origins and educational level

	Basque Country			Europe			America		
	Pri	High	Uni	Pri	High	Uni	Prima	High	Uni
Pre-crisis	45.4	67.6	76.3	50.2	62.1	75.0	60.5	61.5	69.4
Crisis	40.4	63.0	76.9	33.9	65.4	66.4	48.5	60.6	66.5

Note: Pri: Primary School; High: High School; Uni: University Studies.

Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

Secondly, it is of interest to compare the different levels of education among different geographical origins. We observe that among the local population and European immigrants the lowest employment rates in the Pre-Crisis period were among individuals with the lowest level of education (45% and 50%, respectively), followed by those with high-school education (almost 68% and 62%, respectively), with university graduates having the highest rates (76% and 75%, respectively).

Employment rates among immigrants from the Americas reveal that individuals with a university education also have the highest employment rates (60.5% for primary school, 61.5% for high-school, and 69% for university graduates).

An interesting question is whether a higher level of education is positive in times of crisis, i.e. whether investment in human capital results in an improvement in the employment rate. Accordingly, it is observed that the population with only primary schooling bears the brunt of the crisis, whatever the place of origin of the individual. From the Pre-Crisis period to the Crisis period the employment rate drops by 5 percentage points for Basque-born individuals, by more than 16 percentage points for European immigrants and by 12 points for immigrants from the Americas.

So those who best withstand the effects of the crisis in terms of employment are local-born Basques with university degrees, European immigrants with high-school education levels and immigrants from the Americas with secondary and university qualifications. Thus, higher levels of education are positive in terms of employment in times of crisis, so greater investment in human capital results in a favorable relative position in the labor market.

As set out above for male and female employment rates, it is useful to consider numbers of individuals by level of education and geographical origin to obtain a picture of the total population numbers in each case. These data are shown in Table 9. We also include African and Asian im-

migrants to show that the numbers of individuals in these cases are very small. There are various points worth noting:

- As pointed out above in the analysis of immigration by sex, the number of European immigrants is small at all levels of education during the crisis.
- We believe that it is worth mentioning that immigration from the Americas with high-school qualifications are the largest group among all immigrants, and their numbers also increased considerably during the crisis. It is also worth remembering that it is woman from the Americas with secondary schooling who show the highest employment rate and the most favorable performance in the economic crisis.
- Finally, it is interesting to point out that both African and Asian immigrants with primary and high-school educations grew in numbers in the recession, but the number of the university graduates decreased in both cases. However, the data must be regarded with caution given the small numbers involved.

CONCLUSIONS

In this paper we analyze employment rates among immigrants in the Basque Country from 2005 to 2012, a period which includes a time of economic expansion (2005-2008) and then one of economic recession (2009-2012). The objective is to analyze how employment performs among immigrants during the economic crisis, to determine any differences in male and female employment rates by region of origin or qualification level, and to check for differences with respect to the local-born population. Regardless of their sex, region of origin or qualifications, at the end of the crisis the employment rate among migrants was lower than that of the local-born Basque population, with the sole exceptions of women of American and Asian origin. In addition, the analysis reveals that the impact of the crisis on employment among immigrants in the Basque Country varies considerably from group to group depending on sex, origin, education level and sector of activity.

The results presented here show that the male occupation rate is always higher than the female rate for all workers, local and foreign-born, exception those from the Americas. However, this gender gap decreased during the economic downturn, and in the case of women from the Americas the positive gap widened.

Table 9: Immigrant for different origins and educational level

	Europe			America			Africa			Asia		
	Pri	High	Uni	Pri	High	Uni	Pri	High	Uni	Pri	High	Uni
Pre-crisis	6 328	18 398	10 743	9 058	31 545	10 266	4 608	3 608	1 205	882	963	1 246
Crisis	5 706	17 191	9 176	13 360	53 296	14 029	6 518	7 979	1 166	2 626	3 105	563

Note: Pri: Primary School; High: High School; Uni: University Studies.

Pre-Crisis (2005-2008) and Crisis (2009-2012).

Source: own preparation from Encuesta de Población Activa (EPA) of the Instituto Nacional de Estadística (INE).

This decrease may be due to the added-worker effect, to differences in education levels or to the occupational segregation of women, who work mainly in the service sector, which was less exposed to the economic crisis. Our analysis of occupation by economic sectors seems to show that sectoral segregation is probably the main cause of the narrowing of the gender gap in employment. The proportion of immigrant women employed outside the service sector is almost zero, regardless of their origin, and this fact did not change with the recession. For men there are major differences depending on regions of origin and economic sectors, but in general the service sector tends to show the smallest decreases in employment (in fact rates actually increase in some cases) despite the downturn. With regard to regions of origin, we show that Africans are hit hardest by the recession, with large falls in employment in all economic sectors. Asian workers are at the other extreme: their employment rates actually increase, probably due to their concentration in the service sector, reinforcing the idea that occupational segregation may be the best explanation for post-crisis differences. Finally, immigrant workers from Europe and the Americas are in an intermediate position, with falls in employment similar to those of Basque-born workers and a more widespread presence in all economic sectors.

The empirical evidence suggests a positive relationship between educational investment and the labor market outcomes of immigrants (for an analysis of the Spanish labor market see, for example, Valero *et al.*, 2014). The downturn hit less educated workers hard, both migrants and locals, with significant drops in employment rates. There is less evidence of the effect of the impact of higher education on employment status. University qualifications have been a sort of anti-crisis shield for local-born Basque workers, but migrants from the Americas and the rest of Europe with university degrees experienced greater job losses than those with high-school education and lost relative presence in high-skilled occupations.

In summary, African workers can be seen as the main victims of the downturn. This result is in line with expectations derived from the segmented assimilation theory (Portes and Zhou, 1993) according to which migrants from cultures further from that of the host country may encounter difficulties in integrating into it, in this case resulting in a worse fit in the labor market. Several studies from European countries (see Kahanec and Guzi, 2017, Gorodzeisky and Semyonov, 2017, among the most recent) show similar results, with immigrants of European and Asian origin withstanding the crisis better than those from Africa or the Americas. Our study shows a significant difference with respect to immigration from the

Americas, especially in the case of women migrants, who have the highest employment rate of any group, including local-born Basque workers, with the exception of Asian women. This result could also be explained by the theory of segmented assimilation because, by contrast with other European countries, immigrants from the Americas are closer to the local culture in Spain.

However, despite the fact that American migrant women were relatively less affected than men by the economic crisis (as indeed women in general were affected less than men), this came at the expense of their being confined to low-skilled occupations, with precarious employment, low wages and, in general, poor working conditions. Policies and actions need to be set up that enable women to take up a wider range of occupations in different economic sectors. As one of the most vulnerable groups, migrant women should be taken into account especially.

Another group that needs special attention is that of African immigrants, the most vulnerable group in the Basque labor market. Employment rates among African men fell by the most during the economic downturn and African women have the greatest difficulty in assimilating into the labor market, with almost zero employment levels. This situation is not unique to the Basque labor market but can also be observed in other European Union countries (see, for example, Dumont and Isoppo, 2005). Thus, African women are doubly disadvantaged: In many cases they come from countries where the role of women in the workplace is restricted, and on arrival they find an increasingly reluctant host society. Accordingly, policies and actions are needed that enable these migrant women to assimilate in terms of employment. Additional actions are needed to foster successful integration into the host society.

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