Gender and Age in the Employability Gap Faced by the African Population in Spain

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1. INTRODUCTION

After six years of continuously falling numbers recorded for immigrants entering Spain and reaching negative migratory balances, since 2014 there has been a recovery and gradual growth in the numbers of immigrants coming into the country. Moreover, since 2018 the figures have been comparable to those obtained during the migrant boom (2005-2006) with 760,804 arrivals. Nevertheless, these renewed flows and rising macroeconomic numbers does not seem to be leading to any significant improvement in the working and social conditions of African immigrants. Rather, the contrary is the case. When dissimilarity found during the period of economic expansion is taken as a reference, it is clear that the gap between them and other immigrant and native workers has widened with the economic recovery.

Hence, according to data from the National Statistics Institute (INE), and as shown in Graph 1, the unemployment rate for Africans obtained during the period of growth (2000 to 2007) was 17.12%, for Latin Americans 10.84%, while the national figure was 8.68%. During the crisis (2008-2013), the figure for African-born residents was 45.09%, for Latin Americans 27.09%, and for Spaniards 20.41%. The post-crisis unemployment figures for the years 2014 to 2018 have been 42.67%, 25.17%, and 19.73%, respectively, although the highest figure for Africans (52.6%) is from 2013, while the highest national rate was 22.1%.

Graph 1. Unemployment rates by continents, 2000-2018
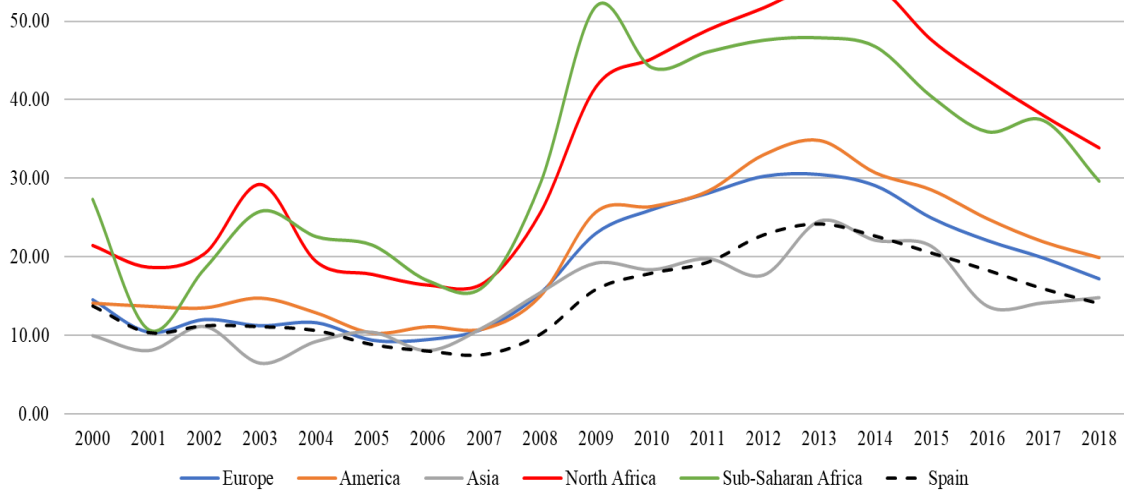
Source: Authors, using data from the Labour Force Survey (INE)

The effect on African women has been even worse, as Graph 2 shows, though what is notable at this point is the "adhesion" effect, which has changed the pattern of behaviour of African women in the labour market, especially women from North Africa and principally Moroccan, with regard to employability. Hence, with the onset of the economic crisis, large numbers of African women began to declare that they were employable—which they had not done previously since they were engaged in household and reproductive tasks—and this declaration greatly increased unemployment rates. It is interesting to note that, since then, they have not stopped declaring that they are employable despite the fact that the apparently improved conditions in the market have not led to a comparable decrease in their unemployment levels.

Graph 2. Unemployment rates by sex and country of birth, 2000-2018
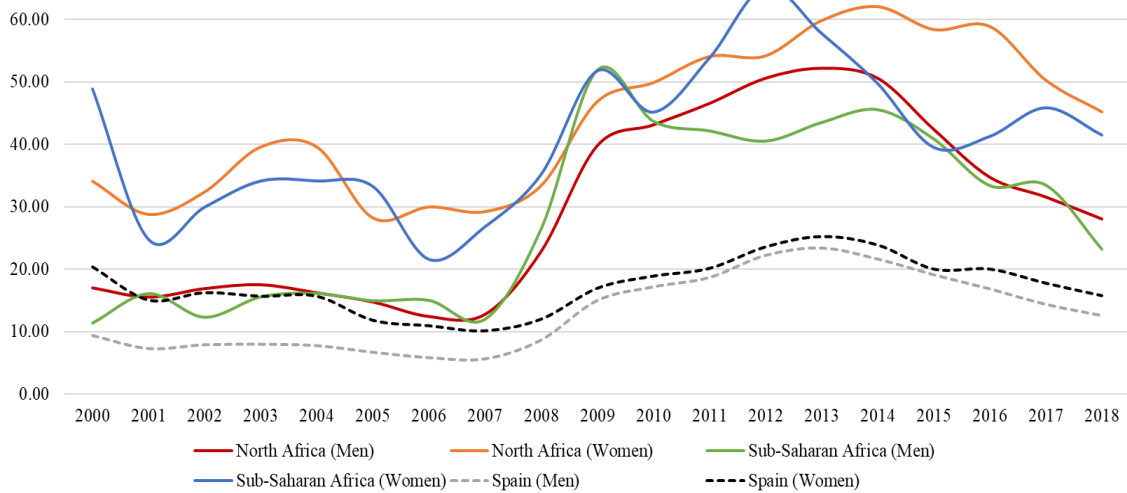
Source: Authors, using data from the Labour Force Survey (INE).

According to the theories of Piore (1969; 1975), increasing dualisation of the Spanish labour market could explain the subordinate position of the African population in Spain, with men mainly concentrated in sectors like construction, the hotel business, and restaurants, and women occupying other niches of the market, usually referred to as feminised occupations. The former sectors tend to bear the brunt of negative economic cycles, while the latter are more prone to precarity. In both cases, working conditions are less favourable than in other jobs to which the national population has access. Nonetheless, when considering this position marked by subordination, other factors of discrimination which would explain why they are in the tail end of the "recovery" should be taken into account.

2. AIMS

1) Examine unemployment according to the time spent looking for work—short-term, long-term, and very long-term unemployment—by the national population and by Africans and immigrants of other origins, disaggregated by age and, with special emphasis, by gender.

2) Discovering the quality of employment and obtaining classifications that make it possible to identify the possibilities the population has of belonging to one group or another, taking into account the inherent characteristics of employment and its different sectors.

3) Studying the success of inclusion into the labour market of young people according to the year of arrival of their parents (time of settlement) and place of achieving the highest level of education, compared with the integration of adults.

3. DATA AND METHODOLOGY

Source:

In carrying out this research the Labour Force Survey (LFS) will be used, covering the years from 2000 to 2018. This survey has been produced on a quarterly basis by the National Statistics Institute since 1964. The survey covers the population of sixteen years and older, residing in private family residences in Spain. The LFS provides transversal information from the sample and this inherent characteristic does not allow a strictly longitudinal study of inclusion in terms of employability or of the different factors that intervene in the integration of individuals into the job market.

Methodology:

In order to achieve the three aims envisaged in this study, three different methodological approaches will be used: 1) creating models of fictitious cohorts; 2) two multinomial logit regression models; and 3) a binary logistic regression model.

Hence, to address the problem of lack of adequate data for a merely longitudinal analysis, two **fictitious cohort models** will be constructed (Garrido Medina et al., 2010) for immigrants and by year of birth in the analyses where foreign and national populations are compared. The study of the immigrant population will be controlled by the variable "country of birth" in order to avoid those cases where Spanish or dual nationality has been obtained.

Using the strategy of fictitious cohorts we will be able to produce a longitudinal analysis because, although we are aware that these are not the same cases throughout the study, they do belong to the same cohort, which means that they share similar sociodemographic characteristics and, above all, are statistically representative and thus allow us to follow individuals from a given year according to their cohort, in our case, from 2000 through to the last available data (Carrasco Carpio and García Serrano, 2012).

The cohorts designed according to year of birth are as shown in Table 1:

Table 1. Building the fictitious cohorts

Start of the analysis (2000)		End of the analysis (2018)
1984-1975	16-25 years	34-43 years
1974-1965	26-35 years	44-53 years
1964-1955	36-45 years	54-63 years
1954-1945	46-55 years	64-73 years
1944-1935	56-65 years	74-83 years
1934-<	66 and more	84 and more

Source: Authors

Hence, the dynamics of the fictitious cohorts, exemplified by means of a selection of three years from those analysed, would take the form shown in Table 2.

Table 2. Fictitious cohorts example

2000	2008	2018
16-25 years		
26-35 years	24-33 years	
36-45 years	34-43 years	34-43 years
46-55 years	44-53 years	44-53 years
56-65 years	54-63 years	54-63 years
66 and more	64-73 years	64-73 years
	74 and more	74-83 years
		84 and more

Source: Authors

And the fictitious cohorts by year of arrival and converted into periods are:
1) From 2000 to 2007: Growth and economic boom.
2) From 2008 to 2013: Period of economic and financial crisis.
3) Del 2014 al 2018: Post-crisis and recovery period.

In order to respond to the first analysis of the possibility of belonging to a category of unemployment in accordance with time spent job seeking, a **multinomial *logit* regression model** will be estimated in order to analyse the relationship between a set of

independent variables with respect to the dependent variable. The dependent variable in this case has three alternatives to choose from.

The model is begun by defining:

$$Z_{ij} = \beta_{1j} + \beta_{2j}X_{2i} + \cdots + \beta_{kj}X_{ki} = [1 \; X_{2i} \ldots X_{ki}] \begin{bmatrix} \beta_{1j} \\ \beta_{2j} \\ \vdots \\ \beta_{kj} \end{bmatrix} = x_i'\beta_j$$

Where:

β_j: Are the unknown parameters that are to be found.

X_{ki}: Designs the set of regressors.

And the probabilities of each alternative, if 0 is taken as the category of reference, are expressed as follows:

$$P_{ij} = Prob(Y_i = j) = \frac{e^{-x'_i\beta_j}}{1 + \sum_{g=1}^{J} e^{-x'_i\beta_j}} \quad j = 1, 2, \ldots, J$$

$$P_{i0} = Prob(Y_i = 0) = \frac{1}{1 + \sum_{g=1}^{J} e^{-x'_i\beta_j}}$$

The model continues by calculating the Napierian logarithm of the odds ratio between the alternative j and 0 (category of reference), although the logarithm is calculated for all pairs of alternatives:

$$ln = \left[\frac{P_{ij}}{P_{i0}}\right] = x_i'\beta_j$$

$$ln = \left[\frac{P_{ij}}{P_{ig}}\right] = x_i'(\beta_j - \beta_g)$$

For the second aim, another multinomial logit regression model is used to obtain the characteristics associated with the quality of the job market by means of constructing an Employment Quality Index (EQI) on the basis of variables regarding conditions of work (working day, hours, size of company...), qualifications and training (non-formal training, level of training, and finding the difference between level of education and the level required for the job being carried out) and, finally, the balance between everyday life and work (shift work, overtime, night work, and so on).

For the final aim, a **binomial logistic regression** model is estimated to be used when the dependent variable has two mutually exclusive response options, thus making it possible to obtain the probabilities of success (presence) and failure (absence).

The model starts out from the following equation:

$$P(Y = 1|X = \frac{\exp(b_0 + \sum_{i=1}^{n} b_i x_i)}{1 + \exp(b_0 + \sum_{i=1}^{n} b_i x_i)},$$

Where:

$P(Y = 1|X)$: The probability is that Y will take the value of 1.

X= Set of co-variables $(x_1 ... ... x_n)$

b_0= Denotes the constant of the model.

b_i= These are the coefficients of the co-variables.

In order to obtain the probabilities, their odds have to be constructed but the product of the calculation is difficult to interpret. In order to solve this difficulty, it is transformed by means of its natural logarithm:

$$log \left(\frac{(P(Y = 1|X)}{1 - P(Y = 1|X)} \right) = b_0 + \sum_{i=1}^{n} b_i x_1$$

4. EXPECTED RESULTS

As starting hypotheses we suggest that:

1) African immigrants have not benefitted from the economic recovery. Indeed, the probability of being unemployed for a longer time has increased sharply for both men and women in this population, thus questioning the idea that labour inequalities are caused only by work issues.

2) African migrants show high levels of job segregation and occupy the most precarious positions with the worst qualities in the secondary sector.

3) Young people have worse possibilities for joining the workforce than the mature population since the differences tend to diminish with age and prior work experience. And, although a higher level of education, having formal qualifications in the Spanish education system, and a longer period of settlement

in Spain might mean improvement in the possibilities of joining the labour market, we believe that these factors would not have a positive influence with regard to the chances of these young people of finding employment.

5. BIBLIOGRAPHY

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