OCCUPATIONAL SEGREGATION OF IMMIGRANTS IN SPAIN*

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INDEX

1. INTRODUCTION
2. MEASURING THE SEGREGATION OF A TARGET GROUP
3. SEGREGATION OF IMMIGRANT WORKERS IN SPAIN
   3.1. Segregation of immigrants by educational level
   3.2. Segregation of immigrants by gender
   3.3. Segregation of immigrants by group of age
   3.4. Segregation of immigrants by years of residence
   3.5. Segregation of immigrants by region of origin
   3.6. Segregation of immigrants by salary level
4. RECENT EVOLUTION OF SEGREGATION
5. FINAL COMMENTS

APPENDIX

REFERENCES

SÍNTESIS. Principales implicaciones de política económica
ABSTRACT

The aim of this paper is to study the occupational segregation of immigrants in Spain. Thus, it analyzes whether age, educational level, gender, region of origin, years of residence in Spain, and salary level affect the distribution of immigrants across occupations. In addition, given the remarkable increase of immigrants in the last few years and the adjustments that have occurred in the Spanish labor market from the current economic crisis, the recent evolution of the occupational segregation of immigrants is addressed as well. For these purposes, several measures recently proposed in the literature are used.

Keywords: Immigration; Occupational segregation; Local/overall segregation.

JEL Classification: D63; J15; J16; J71.
1. INTRODUCTION

In the last decade, Spain has experienced a remarkable increase in its immigrant population – the immigration rate rose from 1.4% in 1996 to 12.1% in 2009 – which has stimulated a debate in academia about the consequences of this phenomenon. The literature has dealt, on the one hand, with the effects of immigration on native employment, the wage gap between immigrant and native workers, and the assimilation of immigrants in the labor market (Carrasco et al., 2004; Amuedo-Dorantes and De la Rica, 2007; Bentolilla et al., 2007; Canal-Domínguez and Rodríguez-Gutiérrez, 2008; Izquierdo et al., 2009). On the other hand, the effects of immigration on the welfare state have been addressed as well (Collado et al., 2004; Vázquez et al., 2008; Muñoz de Bustillo and Antón, 2009). Yet, research on the quantification of the occupational segregation of immigrant workers in the Spanish labor market barely exists, despite the important contribution of segregation between native and foreign workers in explaining their wage gap (Simón et al., 2008). Evidence for other countries is also scarce since the literature on occupational segregation has mainly focused on segregation by gender, whereas nationality/race has received less attention, especially in Europe. There are several reasons, however, for discrepancies between the numbers of immigrant and native workers across occupations. First, the job opportunities for newly arrived immigrants are likely to depend on migrant networks, which may fuel their concentration in some types of occupations. Second, language and cultural differences between the sending and the receiving country may hinder the process of immigrant assimilation, especially if the employers in the latter country possess discriminatory attitudes. Third, the educational achievement of immigrants may depart from that of the natives, not only regarding the number of schooling years, but also regarding the specific knowledge required in the host country, as in the case of lawyers.

To fill some of that gap, this paper aims to analyze occupational segregation in the Spanish labor market from an immigration perspective. In particular, it

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1 See the revised version of the municipal census undertaken by the Spanish Institute of Statistics (INE, 2009, 2010a).

2 Caparrós and Navarro (2008) measure the discrepancy between immigrant and native workers when considering nine broad occupations and two types of contracts (temporary versus permanent). In order to analyze the effects of immigration on native employment patterns, Amuedo-Dorantes and De la Rica (2008) also study the occupational distribution of immigrants across nine occupations. However, none of these papers quantifies the segregation of several subgroups of immigrants.

3 For studies in the U.S. and Australian labor markets, see Albelda (1986), King (1992), and Parasnis (2006).
examines whether age, educational level, gender, region of origin, years of residence in Spain, and salary level affect the distribution of immigrants across occupations. In addition, given the remarkable increase in immigrants in the last few years and the adjustments occurring in the Spanish labor market because of the current economic crisis, the recent evolution of the occupational segregation of immigrants is addressed as well. For these purposes, the tools proposed by Alonso-Villar and Del Río (2010) and Del Río and Alonso-Villar (2010a) are used.

Most segregation indexes existing in the literature actually measure overall segregation rather than the segregation of a particular demographic group, labeled here as local segregation, since they quantify the discrepancies among the distributions of all population subgroups across organizational units. Thus, the popular index of dissimilarity proposed by Duncan and Duncan (1955), the modified version put forward by Karmel and MacLachlan (1988), the Gini index offered by Silber (1989), and the square root proposed by Hutchens (2001) measure the divergence between the distributions of two demographic groups across units—for example, the distributions of female and male workers across occupations, in the case of occupational segregation by gender. In recent years, several indexes have been proposed as well to quantify overall segregation in a multigroup context (Silber, 1992; Reardon and Firebaugh, 2002; Frankel and Volij, 2007). Nevertheless, it is interesting not only to measure aggregate segregation, but also to explore the segregation of several target groups (for example, total immigrant workers or immigrant workers by country of origin) since the distribution of a demographic group across occupations can be rather different from that concerning other population groups. This issue was initially tackled by Moir and Selby Smith (1979) in the binary case in order to measure the segregation of female workers in the Australian labor force, even though, so far as we know, only Alonso-Villar and Del Río (2010) and Del Río and Alonso-Villar (2010a) have dealt with this matter within an axiomatic framework in a context of multiple groups. In their study, the distribution of the target demographic group across units was compared with that of the total population to measure—the occupational segregation of immigrant workers, the distribution of this group should be contrasted with that of total employment. Thus, the target group is segregated so long as its distribution across occupations departs from the employment structure of the economy. However, this approach does not imply that segregation of a demographic group can be

4 Del Río and Alonso-Villar (2010b) use the same tools to compare the segregation of immigrant women with that of native women and immigrant men, even though the evolution of segregation and the effects of age, educational level, and years of residence were not considered in their analysis.

5 By following the same reasoning, Lewis (1982) defined an analogous index to measure male segregation.
quantified independently of the rest of groups. In fact, the segregation of a target group cannot be evaluated without taking into account the remaining population subgroups. Segregation is indeed a phenomenon that requires considering the relative position of individuals with respect to others—as happens when measuring poverty according to a relative approach—so that if the distribution of a demographic group across organizational units varies, this change may affect not only the segregation level of this group, but also that of other groups since the distribution of reference (that of the whole population) may have been modified.

The Spanish case is interesting in an international context because it is representative of those countries that, despite not having a long tradition as receiving countries, have witnessed their immigration rates increasing very rapidly in the last few years. The results obtained in this study will be especially interesting if future research compares them with those of other countries having different timing immigration patterns. Our approach departs from that of previous literature mainly for two reasons. On the one hand, we explicitly quantify the segregation of immigrant workers rather than the aggregate segregation of both immigrants and natives. On the other hand, we explore the segregation of several subgroups of immigrants, which allows us to delve deeper in the analysis.

The paper is structured as follows. Section 2 presents the segregation measures that will be applied. Section 3 offers a detailed analysis of the occupational segregation of immigrants in Spain before the current economic crisis, focusing on 2007, while Section 4 shows its evolution from 1996 to 2009. Finally, Section 5 concludes.

2. MEASURING THE SEGREGATION OF A TARGET GROUP

When occupational segregation is measured, the indexes commonly used quantify overall segregation since they measure whether the population subgroups into which the economy can be partitioned (men/women, blacks/whites/Asians/Hispanics, etc.) are evenly distributed across occupations (Duncan and Duncan, 1955; Silber, 1992; Hutchens, 2001, 2004, Frankel and Volij, 2007; inter alia). However, it is interesting not only to measure aggregate segregation, but also to explore the segregation of a target group. Alonso-Villar and Del Río (2010) (henceforth AV-DR) tackle this matter in a multigroup context by proposing an axiomatic framework in which to study the occupational segregation of any population subgroup. In doing so, they propose some basic axioms for a local segregation measure (i.e., for measuring the segregation of any target group) and offer several measures satisfying them. We introduce these tools here.
Consider that there are $T$ workers in the economy allocated among $J > 1$ occupations according to distribution $t = (t_1, t_2, \ldots, t_J)$, where $T = \sum_j t_j$. Vector $t$ represents the distribution of reference against which that of any population subgroup is compared. Let us denote by $c^g = \left( c^g_1, c^g_2, \ldots, c^g_J \right)$ the distribution of the target group $g$ in which we are interested, $(g = 1, \ldots, G)$, where $c^g_j \leq t_j$. Distribution $c^g$ could represent, for example, immigrant workers, those for a given country, or any other group of citizens in which we are interested. Therefore, the total number of workers in occupation $j$ is $t_j = \sum_g c^g_j$, and the total number of individuals of target group $g$ is $C^g = \sum_j c^g_j$. The following indexes can be defined in order to quantify the segregation of target group $g$:

$$G^g = \frac{\sum_{ij} t_i t_j c^g_i - c^g_j}{2 C^g T},$$

$$\Phi_a \left( c^g, t \right) = \begin{cases} 
\frac{1}{a(a-1)} \sum_j t_j \left[ \left( \frac{c^g_j/C^g}{t_j/T} \right)^a - 1 \right] & \text{if } a \neq 0,1 \\
\sum_j \frac{c^g_j}{C^g} \ln \left( \frac{c^g_j/C^g}{t_j/T} \right) & \text{if } a = 1 
\end{cases},$$

$$D^g = \frac{1}{2} \sum_j \left| \frac{c^g_j}{C^g} - \frac{t_j}{T} \right|,$$

where the first measure is a variation of the classic Gini index, the second represents a family of indexes related to the generalized entropy family ($a$ can be interpreted as a segregation aversion parameter), and the third is a variation of the index of dissimilarity$^6$.

In addition, AV-DR also propose to use what they called a local segregation curve, $S^g$, which is built as follows$^7$. First, the occupations have to be ranked in ascending order of the ratio $\frac{c^g_j}{t_j}$, and second, the cumulative proportion of

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$^6$ This index was proposed by Moir and Selby Smith (1979) even though its properties are studied in AV-DR. Both $D^g$ and $G^g$ take values within the interval $[0,1]$, while $\Phi_a$ can easily be transformed in order to take values within that interval.

$^7$ A segregation curve is similar to the Lorenz curve obtained when having groups of homogeneous income recipients, instead of individual data.
employment, $\sum_{i<j}^{t_i}$, is plotted on the horizontal axis; and the cumulative proportion of individuals of the target group (immigrants from Latin America, for example), $\sum_{i<j}^{c_i^g}$, is plotted on the vertical axis. Therefore, each point of the local segregation curve of Latin American immigrants indicates the proportion of these workers corresponding to each cumulative decile of total employment. The first decile distribution represents 10% of total employment, and it includes those occupations in which Latin American workers have the lowest relative presence; the second cumulative decile represents 20% of total employment, and it also includes those occupations in which the target group has the lowest relative presence; and so on. Therefore, the local segregation curve shows the under-representation of the target group with respect to the employment structure of the economy, decile by decile. In the case where the target group was distributed among occupations in the same manner as the distribution of total employment, the local segregation curve would be equal to the 45º-line, and no segregation would exist for that demographic group. The further away the curve is from this line, the higher the occupational segregation of the target group.

The use of these curves constitutes a rather robust procedure, since when the local segregation curves of two distributions do not cross, any local segregation index consistent with them (such as $G^g$ and $\phi_{g,t}(c^g)$) would reach the same conclusion; and, therefore, they would not be necessary. In this vein, if the segregation curve of a distribution dominates that of another (i.e., if the segregation curve of the former lies at no point below the latter and at some point above), these indexes will take a higher value when they are evaluated at the dominated distribution. However, if the curves cross or if one is interested in quantifying the extent of segregation, the use of indexes satisfying some basic properties seems most appropriate (see AV-DR). One should keep in mind that when curves cross, the conclusion reached with an index may differ from that of others since even though all these local indexes have the aforementioned basic properties in common, they disagree regarding additional properties. This is a consequence of the different weights that each index gives to discrepancies in occupations between the benchmark and the distribution of the target group.

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8 In a binary context, the overall segregation curve is obtained by comparing the distribution of one population subgroup among organizational units with that of the other subgroup (these curves were initially proposed by Duncan and Duncan, 1955).

9 These differences also appear in the literature of income distribution when measuring inequality and poverty with indexes consistent with the Lorenz and TIP criteria, respectively.
3. SEGREGATION OF IMMIGRANT WORKERS IN SPAIN

Spain has seen an extraordinary rise in the number of immigrants in just a few years (Figure 1). This increase means that Spain’s immigration rate has reached a value similar to that of countries with much longer migrant traditions, like France, Germany, the United Kingdom, and the United States (see Figure 2)\(^\text{10}\).

**Figure 1**


**Figure 2**

Migrant stock versus population in 2005 (%) for the countries with the highest migrant stocks. Source: United Nations, 2009

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\(^{10}\) The predictions of the Population Division of the United Nations for 2010 stress this trend even more. According to this estimation, Spain occupies the 8th position in the ranking of countries with the largest migrant stock.
Given the remarkable presence of immigrants in the current Spanish labor market, it seems timely to analyze their distribution across occupations. For this purpose, we use the Labor Force Survey (EPA) conducted by the Spanish Institute of Statistics (INE) by following Eurostat’s guidelines. This survey offers labor market information for a representative sample of Spanish households and is commonly used for international comparisons. Our data set corresponds to the second quarter of each year from 1996 through 2009. Occupations are considered at a two-digit level of the CNO-1994 (*National Classification of Occupations*), and the list includes 66 occupations.

We start the analysis by exploring the occupational segregation level of several subgroups of immigrants, classified by educational level, age, gender, years of residence in Spain, region of origin, and salary level. For this purpose, we choose the second quarter of 2007 since we are interested in quantifying segregation in a year of high employment and immigration rates (see Figures 3 and 4). In the next section, we deal with the evolution of occupational segregation of immigrant workers during the whole period.

**Figure 3**

**NUMBER OF IMMIGRANTS AND IMMIGRATION RATES (1996-2009).**

*Source: Municipal Census, INE (2009, 2010a)*

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11 By immigrant population, we mean those persons born outside of Spain and also to those born in Spain who possess a foreign or double nationality. This allows us to include second-generation immigrants in the study.
A summary of the main characteristics of the immigrant workers in 2007 is given in the Appendix (Table 6). Three educational groups of workers have been considered: low-educated (those who have not finished secondary school); intermediate-educated (those who have completed secondary school); and high-educated (those who have a college degree). Immigrant workers have a higher educational level than native workers (59% compared to 55.8% have finished, at least, secondary school), even though the proportion of immigrants with university degrees is over 10 percentage points lower. Immigrants are also younger and the presence of women among them is higher relative to natives (43.6% versus 40.5%). In addition, 18.5% of immigrants have been in Spain for less than 3 years, while 23.4% have 10 or more years of residence in the country.

3.1. Segregation of immigrants by educational level

First, workers are classified into the three educational groups mentioned above. Figure 5 shows the corresponding segregation curves for immigrants.
and natives (N), which are shown in two different graphs for the sake of clarity. We want to call attention to the fact that high-educated immigrants have a clearly lower segregation than the remaining subgroups of immigrants (since their curve is above that of the others). Therefore, any of the local indexes consistent with these curves would lead to a lower segregation level for high-educated immigrants than for the remaining groups. Yet, given that the other two curves do cross in the first percentiles of the employment distribution, the use of local indexes seems the most appropriate course to take in these cases. Table 1 offers six of the local indexes defined in Section 2: those corresponding to the generalized entropy family \( \Phi_a \) \((a = 0.1, 0.5, 1, \text{and} 2) \), the Gini index \( G^9 \), and the index of dissimilarity \( D^9 \). These indexes show that immigrants with an intermediate educational level are distinctly less segregated than those with low education.

**Figure 5**

**SEGREGATION CURVES FOR IMMIGRANTS AND NATIVES BY EDUCATIONAL LEVEL (2007)**

However, it is important to note that education achievements do not affect immigrants and natives in the same way. Thus, as shown in Figure 5, the segregation curve for native workers with a high education is below those of other natives for most percentiles (the indexes are given in the Appendix, Table 7), which suggests that high-educated natives tend to be concentrated in certain types of occupations. The fact that immigrants with a high education level are more evenly distributed across occupations than are similar natives suggests that immigrants may be working in jobs that do not necessarily match their skills (which is consistent with the higher probability of over-education in the group.
of immigrants found by Fernández and Ortega, 2006). In fact, when examining the distribution of each subgroup of immigrants across ventiles of total employment—including both immigrants and natives—ranked from low to high immigrant presence\(^{15}\), we find that immigrants with a low level of education tend to concentrate in occupations with a strong immigrant presence, while those with a high educational level work in occupations with both high and low immigrant presence (see Figure 6)\(^{16}\).

### Table 1

**LOCAL SEGREGATION INDEXES FOR IMMIGRANTS BY EDUCATIONAL LEVEL (2007)**

<table>
<thead>
<tr>
<th>LOCAL SEGREGATION</th>
<th>$\Phi_{0.1}$</th>
<th>$\Phi_{0.5}$</th>
<th>$\Phi_1$</th>
<th>$\Phi_2$</th>
<th>$D^g$</th>
<th>$G^g$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low education</td>
<td>1.50</td>
<td>0.66</td>
<td>0.55</td>
<td>0.60</td>
<td>0.43</td>
<td>0.56</td>
</tr>
<tr>
<td>Intermediate education</td>
<td>1.07</td>
<td>0.41</td>
<td>0.32</td>
<td>0.31</td>
<td>0.32</td>
<td>0.43</td>
</tr>
<tr>
<td>High education</td>
<td>0.21</td>
<td>0.15</td>
<td>0.14</td>
<td>0.15</td>
<td>0.21</td>
<td>0.29</td>
</tr>
</tbody>
</table>

### Figure 6

**DISTRIBUTIONS OF IMMIGRANTS ACROSS VENTILES, EDUCATIONAL LEVEL (2007)**

\(^{15}\) The first ventile, which represents 20% of total employment, includes those occupations where immigrants have the lowest share, while the fifth ventile includes those with the highest. The top (bottom) 10 occupations with the highest (lowest) immigrant presence are given in the Appendix (Table 8). For a detailed analysis of the above decomposition, see Del Río and Alonso-Villar (2010a).

\(^{16}\) The corresponding figure for native workers is given in the Appendix (Figure 15)—occupations are then ranked from low to high native presence. The figure of natives suggests a pattern rather different from that of immigrants since in the former case those workers with intermediate and low levels of education are more evenly distributed than those with a high level.
3.2. Segregation of immigrants by gender

Del Río and Alonso-Villar (2010b) show that immigrant women in Spain suffer a double segregation in the labor market since, when analyzing their distribution across occupations, the authors find them to be much more segregated than both native women and immigrant men. Regarding immigrant men, the authors also find that they are clearly more segregated than native men, while the comparison between immigrant men and native women leads to a different conclusion depending on the index used (even though segregation tends to be higher for immigrant men according to most indexes).

Here we go a step further by calculating the contribution of women and men to the occupational segregation of immigrants. For this purpose, we use the decomposition of index $\Phi_2$ (see AV-DR). In order to obtain the contribution of women to the segregation of the whole group of immigrants, first, we have to calculate the correlation coefficient, $\rho_w$, between the distribution of immigrants across occupations

$$\left( \begin{array}{ccc} \frac{c_1^I}{t_1} & \cdots & \frac{c_j^I}{t_j} \\ \frac{c_1^W}{t_1} & \cdots & \frac{c_j^W}{t_j} \end{array} \right)$$

and the distribution of immigrant women

$$\left( \begin{array}{ccc} \frac{c_1^W}{t_1} & \cdots & \frac{c_j^W}{t_j} \end{array} \right),$$

where the proportion of immigrants in each occupation, $\frac{c_j^I}{t_j}$, and the proportion of immigrant women in each occupation, $\frac{c_j^W}{t_j}$, appear $t_j$ times. Second, the local segregation of immigrants, $\Phi_2\left( \frac{c^I}{t} \right)$, and that of immigrant women, $\Phi_2\left( \frac{c^W}{t} \right)$, have to be calculated. Finally, the contribution of women to the segregation of the whole group of immigrant workers can be obtained by using the following expression:

$$\text{Contribution of women} = \rho_w \left( \frac{C^W}{C^I} \right) \sqrt{\frac{\Phi_2\left( \frac{C^W}{t} \right)}{\Phi_2\left( \frac{C^I}{t} \right)}},$$

where $C^W$ denotes the number of immigrant women and $C^I$ the number of immigrants. An analogous expression can be defined for the contribution of immigrant men. These contributions are, respectively, 53% and 47%, while their demographic weights are 44% and 56%. Therefore, gender segregation seems to play an important role in explaining the segregation of immigrants in Spain: the contribution of immigrant women to the segregation of immigrants is 9 percentage points higher than its employment weight.
3.3. Segregation of immigrants by group of age

In order to explore segregation differences among immigrant workers related to their age, three groups are considered: young workers (16 to 30 years old), middle-aged workers (31 to 45 years old), and elderly workers (over 46 years old). Figure 7 shows that young immigrants are more segregated than the remaining immigrants. In addition, the discrepancy between young and elderly workers is much more intense among immigrants than among natives. In fact, young native workers are distributed among ventiles of total employment (ranked from low to high native presence) in the same manner as middle-aged and elderly, while young immigrant workers tend to concentrate in occupations with high immigration shares to a greater extent than the remaining immigrants (over 53% of young immigrants work in occupations included in the fifth ventile; see Figure 8).

Figure 7
SEGREGATION CURVES FOR IMMIGRANTS AND NATIVES BY AGE GROUP (2007)
3.4. Segregation of immigrants by years of residence

We now classify immigrant workers by years of residence in Spain (without taking age into account). Four groups are considered: those who have been living in Spain for less than 3 years, those from 3 to less than 6, those from 6 to less than 10, and those from 10 onwards. The segregation curves for these groups are shown in Figure 9.
Table 2
LOCAL SEGREGATION INDEXES FOR IMMIGRANTS BY YEARS OF RESIDENCE IN SPAIN (2007)

<table>
<thead>
<tr>
<th>LOCAL SEGREGATION</th>
<th>$\Phi_{0.1}$</th>
<th>$\Phi_{0.5}$</th>
<th>$\Phi_1$</th>
<th>$\Phi_2$</th>
<th>$D^g$</th>
<th>$G^g$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of residence &lt; 3</td>
<td>0.89</td>
<td>0.57</td>
<td>0.54</td>
<td>0.69</td>
<td>0.44</td>
<td>0.56</td>
</tr>
<tr>
<td>$3 \leq$ Years of residence &lt; 6</td>
<td>0.69</td>
<td>0.46</td>
<td>0.41</td>
<td>0.44</td>
<td>0.38</td>
<td>0.50</td>
</tr>
<tr>
<td>$6 \leq$ Years of residence &lt; 10</td>
<td>0.44</td>
<td>0.35</td>
<td>0.32</td>
<td>0.34</td>
<td>0.34</td>
<td>0.44</td>
</tr>
<tr>
<td>Years of residence $\geq$ 10</td>
<td>0.10</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.13</td>
<td>0.19</td>
</tr>
</tbody>
</table>

We can see that occupational segregation is clearly lower for those who have lived in Spain for 10 or more years (who are also more evenly distributed across ventiles of total employment, as shown in Figure 10). Even though the curves of the remaining groups cross, all of the indexes unambiguously point out that the higher the number of years of residence in Spain, the lower the segregation level (Table 2). In particular, we find that the highest segregation corresponds to newly arrived immigrants, who tend to concentrate in occupations with the highest share of immigrants in the economy (see Figure 10).

Figure 10
DISTRIBUTION OF IMMIGRANTS ACROSS VENTILES BY YEARS OF RESIDENCE (2007)

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17 Immigrant workers with 10 or more years of residence in Spain have the highest proportion of university degrees (33%), while the figures for the other groups are close together (between 19% and 21%).
This result is in line with that obtained by Amuedo-Dorantes and De la Rica (2007) using another dataset (2001 Population Census) and methodology, which suggests that this finding is rather robust. Thus, following an econometric approach, these authors find that immigrants reach higher occupational achievements as their residency in Spain lengthens, even though there are important differences among regions of origin (the performance being especially positive for European countries outside the EU bloc and Latin America and negative for Africans, while immigrants from the EU bloc do not have occupational attainment discrepancies with respect to natives of the same skill level). Fernández and Ortega (2006) and Izquierdo et al. (2009) also provide evidence of assimilation of immigrants in Spain in terms of additional variables such as participation, unemployment rates, and wage gaps. In particular, the latter estimate a reduction of around half of the wage gap in the fifth or sixth year using the 2005 wave of the Continuous Sample of Working Histories (INE).

3.5. Segregation of immigrants by region of origin

We next partition immigrant workers into six large regions of origin: the EU-25 and other countries, the Rest of Europe, Latin America, Africa, Asia, and the Rest of the World. Figure 11 illustrates that most immigrant workers come from Latin America while the EU-25 bloc, Rest of Europe, and Africa have similar shares. Given the low presence of workers from the Rest of the World in the survey (0.5% in 2007) one should be careful about drawing conclusions for this group.

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18 The incidence of over-education and temporary contracts in the immigrant population remain, however, unaltered five years after arrival.
19 We have included Iceland, Liechtenstein, Norway, and Switzerland in the group named “EU-25 bloc and others” since, even though these countries are not included in the EU, the immigration policies applied to them in Spain are similar to those within the bloc (Régimen Comunitario de Residencia). However, Romania and Bulgaria, which have been included in the EU-27 since 2007, were not included in this group since most of these immigrants are affected by a transitory regimen, which is similar to that of countries outside the European Union (Régimen General de Extranjería). The region named “Rest of the World” includes part of North America (Canada and the USA), Australasia, and Oceania.
Figure 11

DISTRIBUTION OF IMMIGRANT WORKERS BY LARGE REGIONS OF ORIGIN (2007)

Figure 12 shows the segregation curves of each of these six demographic groups. It is easy to see that immigrant workers from the EU-25 bloc have the lowest segregation (the corresponding curve is above those of the remaining regions), while Latin American workers are less segregated than workers from Africa, Asia, and the Rest of Europe (see Table 3). In addition, according to most indexes, Asian workers are the most segregated group (excluding the Rest of the World), followed by immigrants from the Rest of Europe.

Figure 12

LOCAL SEGREGATION CURVES FOR IMMIGRANTS BY LARGE REGIONS (2007)
Table 3

LOCAL SEGREGATION INDEXES FOR IMMIGRANTS BY LARGE REGIONS (2007)

<table>
<thead>
<tr>
<th>LOCAL SEGREGATION</th>
<th>( \Phi_{0.1} )</th>
<th>( \Phi_{0.5} )</th>
<th>( \Phi_{1} )</th>
<th>( \Phi_{2} )</th>
<th>( D^{g} )</th>
<th>( G^{g} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-25 and others</td>
<td>0.15</td>
<td>0.12</td>
<td>0.11</td>
<td>0.12</td>
<td>0.18</td>
<td>0.26</td>
</tr>
<tr>
<td>Rest of Europe</td>
<td>1.38</td>
<td>0.70</td>
<td>0.59</td>
<td>0.65</td>
<td>0.46</td>
<td>0.58</td>
</tr>
<tr>
<td>Latin America</td>
<td>0.40</td>
<td>0.33</td>
<td>0.32</td>
<td>0.37</td>
<td>0.33</td>
<td>0.44</td>
</tr>
<tr>
<td>Africa</td>
<td>0.84</td>
<td>0.55</td>
<td>0.53</td>
<td>0.72</td>
<td>0.41</td>
<td>0.55</td>
</tr>
<tr>
<td>Asia</td>
<td>1.90</td>
<td>0.72</td>
<td>0.62</td>
<td>0.78</td>
<td>0.45</td>
<td>0.59</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>6.27</td>
<td>1.77</td>
<td>1.42</td>
<td>2.52</td>
<td>0.67</td>
<td>0.81</td>
</tr>
</tbody>
</table>

The study of the distribution of each large region across ventiles of total employment shows that workers from the EU bloc are evenly distributed among them –i.e., they work in occupations with both high and low immigration shares. However, those from Asia, Latin America, Africa, and especially the Rest of Europe tend to concentrate in the fifth ventile– i.e., in occupations with the highest share of immigrants (see Figure 13)\(^{20}\). All of the above suggests that the distribution of immigrant workers from the EU bloc across occupations clearly departs from that of other groups of immigrants (perhaps as consequence of the higher educational level of the former)\(^{21}\). The small group of immigrants from the Rest of the World also follows a pattern different from that of other immigrants since it tends to concentrate in professions associated with second and third university degrees in teaching.

Figure 13
DISTRIBUTION OF IMMIGRANTS ACROSS VENTILES BY REGION OF ORIGIN (2007)

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\(^{20}\) This concentration is even stronger in the case of female immigrants, as shown in Del Río and Alonso-Villar (2010b).

\(^{21}\) Of the immigrant workers from the EU bloc, 43% have a university degree, compared to 25% from the Rest of Europe, 23% from Asia, 20% from Latin America, and 9% from Africa.
3.6. Segregation of immigrants by salary level

As pointed out by AV-DR, the members of the family of local indexes $\Phi_a$ are decomposable by subgroups of occupations. Thus, given a partition of the list of occupations in three classes, for example, the above measures can be decomposed as follows:

$$\Phi_a\left(c^i; t\right) = \sum_{k=1}^{3} \left(\frac{C^k}{C^i}\right)^a \left(\frac{T^k}{T}\right)^{1-a} \Phi_a\left(c^k; t^k\right) + \Phi_a\left(C^1, C^2, C^3; T^1, T^2, T^3\right),$$

where $C^i$ is the number of immigrant workers, $C^k$ is the number of immigrant workers in class $k (k = 1, 2, 3)$, and $c^k$ is the distribution of immigrants among the occupations included in class $k$.

The first addend of the above formula represents the within-group component (i.e., the weighted sum of segregation inside each class of occupations), while the second addend reflects the between-group component (i.e., segregation due to the distribution of immigrants among classes).

We now classify the list of occupations in three classes according to their average wages. For this purpose, the Spanish Structure Earnings Survey for 2002 has also been used since the EPA does not gather any information on wages. The above decomposition shows that the between-group component explains around 48% of the segregation of immigrants. In other words, the distribution of immigrant workers across occupations is strongly affected by the distribution of immigrants across low-, intermediate-, and high-paid jobs (this distribution clearly departs from that of total employment across the three classes of occupations). In fact, almost 64% of the immigrants work in the class of low-paid occupations, which represents only 41% of the jobs in the economy.\textsuperscript{22}

4. RECENT EVOLUTION OF SEGREGATION

As mentioned above, immigration is a recent phenomenon in Spain. For this reason, even though the EPA gathers information from 1977 on, Figure 14 illustrates the evolution of occupational segregation of immigrants only from 1996 to 2009. The analysis reveals that the levels in 1996 were similar to those of 2001 according to most indexes, while Spain saw a noteworthy augment in the segregation level of its immigrant population at the beginning of the 21st century which halted in 2006. Both periods of time, 1996-2001 and 2001-2006, share a remarkable reduction in their unemployment rates (as shown in Figure 4)

\textsuperscript{22} In fact, Amuedo-Dorantes and De la Rica (2008, p. 13), in their study of assimilation of immigrants in Spain, suggest that “immigrants may only compete with low-wage natives”.

--- 24 ---
and also a notable increase in the number of employed immigrants, which was extraordinarily high in the second period. Thus, according to the EPA, employed immigrants went from 618,080 in 2001 to almost 3 million in 2006. The growth of this group was much smaller, however, between 2006 and 2009 since in 2009 there were 3.2 million employed immigrants. The economic crisis, the effects of which started at the end of 2007, has had important consequences in the Spanish labor market, as reflected by the unemployment rate, which increased from 7.95% in the second quarter of 2007 to 18.83% in the fourth quarter of 2009. The employment implosion occurring during these last years has been accompanied by a small reduction in the occupational segregation of immigrant workers, as mentioned above.23

Our analysis suggests, therefore, a close relationship between the strong expansion of immigrant employment during the first years of this century and the increase in the occupational segregation level of this group, which halted with the recent sharp increase in unemployment.

**Figure 14**

**EVOLUTION OF THE OCCUPATIONAL SEGREGATION OF IMMIGRANTS (6 local indexes)**

We focus now on the 2001-2006 period since at that time there were more changes in the segregation level. When we decompose this change, $I(c_{2001};t_{2001}) - I(c_{2006};t_{2006})$, in two components (see Table 4), one related to changes in the occupational structure of the economy, $I(c_{2001};t_{2001}) - I(c_{2001};t_{2006})$; and the other related to changes in the distribution

---

23 Between 2001 and 2006, nearly 4 million jobs were created, of which around 3 million were filled with immigrant workers. Even though between 2006 and 2009 there was a decline of 3.8% in employment, immigrant employment still increased by 10.9% (the whole immigrant population also increased–see Figure 3).
of immigrant workers across occupations, \( I(c_{2001}^{2006} ; t_{2006}^{2006}) - I(c_{2006}^{2006} ; t_{2006}^{2006}) \), we find that the second effect was higher than the first (and of opposite sign)\(^{24}\). This suggests that, on the one hand, the shift in the occupational structure of the Spanish economy that took place at the beginning of this century lead to an increase in the employment weight of occupations with large immigrant presence and, on the other hand, this change was accompanied by a stronger concentration of immigrants in some of these occupations. In fact, when we focus on occupations in which immigrants tended to concentrate in 2001 (i.e., those in which the proportion of immigrants with respect to total immigrant workers was at least 2.5%), we find that these occupations experienced an increase of 4.5 percentage points in terms of total employment, rising from 40.3% in 2001 to 44.8% in 2006 (see Table 5, bottom row). In addition, the immigrant employment rate in these occupations rose by 10.6 percentage points (from 54.6% to 65.2%). All of the above implies that immigrants tended to concentrate in these occupations to a greater extent than natives did.

### Table 4

DECOMPOSITION OF THE SEGREGATION CHANGE BETWEEN 2001 AND 2006

<table>
<thead>
<tr>
<th>Decomposition of local segregation, 2001-2006</th>
<th>( \Phi_{0.1} )</th>
<th>( \Phi_{0.5} )</th>
<th>( \Phi_{1} )</th>
<th>( \Phi_{2} )</th>
<th>( D^g )</th>
<th>( G^g )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( I(c_{2001}^{2006} ; t_{2001}^{2006}) - I(c_{2001}^{2006} ; t_{2006}^{2006}) )</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.04</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>( I(c_{2001}^{2006} ; t_{2006}^{2006}) - I(c_{2006}^{2006} ; t_{2006}^{2006}) )</td>
<td>-0.17</td>
<td>-0.13</td>
<td>-0.13</td>
<td>-0.15</td>
<td>-0.10</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

### Table 5

EMPLOYMENT CHANGES BETWEEN 2001 AND 2006 IN THE OCCUPATIONS IN WHICH IMMIGRANTS TENDED TO CONCENTRATE IN 2001

<table>
<thead>
<tr>
<th>OCCUPATIONS</th>
<th>( T_{06} - T_{01} )</th>
<th>( C_{06}^g - C_{01}^g )</th>
<th>( C_{06}^g - C_{01}^g )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic employees and other indoor cleaning personnel</td>
<td>478,793</td>
<td>410,224</td>
<td>85.68</td>
</tr>
<tr>
<td>Catering service workers</td>
<td>346,500</td>
<td>288,879</td>
<td>83.37</td>
</tr>
<tr>
<td>Workers at structural construction sites and the like</td>
<td>234,442</td>
<td>217,081</td>
<td>92.59</td>
</tr>
<tr>
<td>Retail workers and the like</td>
<td>213,574</td>
<td>95,859</td>
<td>44.88</td>
</tr>
<tr>
<td>Agricultural, livestock, and fishing laborers</td>
<td>102,933</td>
<td>246.98</td>
<td></td>
</tr>
</tbody>
</table>

(\( \Phi \) Follow)

\(^{24}\) The same occurs when comparing 2006 and 2009, even though with reverse movements.
Table 5 also offers a summary of the changes that occurred in each of these occupations in terms of employment and immigrant presence. We see that domestic and other indoor cleaning work increased by nearly half a million jobs (see column 4), 85% of which were filled with immigrants (column 6). The group of immigrants with the highest presence in this strongly feminized occupation (see Del Río and Alonso-Villar, 2010b) is Latin Americans, whose participation remained rather stable throughout the period (they comprise about 65% of the immigrants included in this occupation). On the contrary, the proportion of workers from the EU bloc working there decreased in the period (from 12% to 4%) in favor of European countries outside that bloc (which moved from 8% to 21%). Other occupations that experienced remarkable increases in the period are catering and personal services—which are strongly feminized—and structural construction work—highly masculinized. The employment growth in these occupations was also largely filled with immigrants (accounting for between 93% and 45% of their growth).}

25 The most important immigrant group working as structural construction workers in 2006 was that from Latin America, followed by Africa and Rest of Europe (representing 41%, 28%, and 22%, respectively, of the immigrant employment in this occupation). The
occupations related to unskilled labor in agriculture/fishing and construction underwent a higher increase in the number of immigrants than in the number of total jobs, which suggests that natives are leaving these two occupations. On the contrary, a low proportion of the employment growth in administrative management support and management of companies with 10 or more employees was filled with immigrants, which decreased the concentration of immigrants in these occupations (see column 3).

The trend change observed between 2006 and 2009 is also interesting, especially given the important adjustments in the levels of employment and occupational structure occurring in the Spanish labor market. A detailed analysis of what took place during this period shows that even though there were different performances among occupations, the effects of these changes almost seem to balance in the aggregate. Thus, domestic service staff, an occupation wherein a large proportion of immigrant women were concentrated in 2006, experienced a notable increase in terms of immigrant presence, rising from 37% to 43% (something similar happened in the occupation labeled “construction laborers,” even though in this case employment declined rather than growing). On the contrary, the category “retail workers and the like” (in which immigrants represented 12% of total employment in 2006) ended the period with an immigrant presence of 15.3%—i.e., even though this share was lower than the immigration rate in 2009 (17.1%) the two figure are close, which might have favored the reduction of segregation. Another occupation showing an egalitarian performance is “personal service workers,” even though in this case there was important employment growth.

5. FINAL COMMENTS

Spain was, for a long time, an out-migration country. First, during the 19th and the first half of the 20th century, many Spanish workers emigrated to Latin America proportion of Latin Americans in personal services was even higher (70% of the immigrant workers). The distribution of catering workers has evolved from being distributed among Latin America, the EU bloc, Asia, and Africa (39%, 23%, 15%, and 14%, respectively) in 2001 to becoming mainly concentrated in Latin America and Rest of Europe in 2006 (52% and 18%, respectively).

The share of agricultural/fishing workers from the Rest of Europe notably increased during the period, which in 2006 distributed immigrant employment rather equally among the Rest of Europe, Latin America, and Africa. Immigrant workers employed as construction laborers in 2006 were mainly from Latin America, Africa and Rest of Europe (45%, 29%, and 19%, respectively).

Both in 2001 and 2006, most of the immigrants working in these two occupations were from the EU bloc and Latin America.
American countries like Argentina, Venezuela, Uruguay, and Cuba, and later to other European countries (Germany, Switzerland, and France, especially). This pattern changed, however, at the end of the past century, when Spain became a receiving country, mainly from Latin America, but also from other European countries (including those of the EU). This paper has shown that the extraordinary increase Spain has experienced in its immigrant population in the last few years has been accompanied by an important rise in the occupational segregation of immigrant workers, even though the current economic crisis has apparently halted to this trend. The intensification of segregation has been a consequence of two factors. On the one hand, those occupations in which immigrants tend to concentrate (in particular, domestic employees, catering workers, and workers at structural construction works) grew more than other occupations. On the other hand, jobs created from this employment growth were filled mostly by immigrants, all of which intensified the concentration of this group in a few occupations (mainly low paying).

Regarding the characteristics of employed immigrants, this paper has shown that the years of residency in Spain is a relevant variable in explaining the segregation of this group. In fact, occupational segregation of immigrants tends to decrease as their residency lengths, which may help to explain why young immigrants are much more segregated than the rest, and this result is line with several studies that analyze the assimilation of immigrants in Spain (Amuedo-Dorantes and De la Rica, 2007; Izquierdo et al., 2009). With respect to the effects of educational achievements on occupational segregation, the study has revealed that the distribution of high-educated immigrants across occupations clearly departs from that of natives with the same educational level, since the latter are more segregated than other natives (perhaps as a consequence of the nature of the corresponding occupations), whereas the former are less segregated than other immigrants. This difference suggests that high-educated immigrants work both in occupations that match their skills and in others that do not, which is line with the higher extent of over-education found in this group of citizens (as pointed out by Fernández and Ortega, 2006). In addition, it has been shown that gender is a relevant variable in analyzing the segregation of immigrant workers in Spain since women contribute to explain 53% of the segregation of the whole group while they represent only 44% of the employed immigrants. Finally, the study has also given evidence of the remarkable differences in segregation regarding the country of immigrant origin. Thus, workers from the EU-25 bloc have the lowest segregation, perhaps as consequence of their higher educational level, while segregation is particularly intense among workers from Asia and European countries outside the bloc.
APPENDIX

Table 6

<table>
<thead>
<tr>
<th></th>
<th>Immigrant workers (%)</th>
<th>Native workers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENDER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>43.6</td>
<td>40.5</td>
</tr>
<tr>
<td>Men</td>
<td>56.4</td>
<td>59.5</td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low education</td>
<td>40.9</td>
<td>44.2</td>
</tr>
<tr>
<td>Intermediate education</td>
<td>35.7</td>
<td>21.3</td>
</tr>
<tr>
<td>High education</td>
<td>23.3</td>
<td>34.5</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young (16-30 years old)</td>
<td>34.6</td>
<td>25.6</td>
</tr>
<tr>
<td>Middle-age (31-45 years old)</td>
<td>49.1</td>
<td>42.0</td>
</tr>
<tr>
<td>Elderly (46 years or more)</td>
<td>16.2</td>
<td>32.4</td>
</tr>
<tr>
<td><strong>YEARS OF RESIDENCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of residence &lt; 3</td>
<td>18.5</td>
<td>—</td>
</tr>
<tr>
<td>3 ≤ Years of residence &lt; 6</td>
<td>31.3</td>
<td>—</td>
</tr>
<tr>
<td>6 ≤ Years of residence &lt; 10</td>
<td>26.8</td>
<td>—</td>
</tr>
<tr>
<td>Years of residence ≥ 10</td>
<td>23.4</td>
<td>—</td>
</tr>
</tbody>
</table>

Table 7
LOCAL SEGREGATION INDEXES OF NATIVES BY EDUCATIONAL LEVEL (2007)

<table>
<thead>
<tr>
<th>LOCAL SEGREGATION</th>
<th>$\Phi_{0.1}$</th>
<th>$\Phi_{0.5}$</th>
<th>$\Phi_1$</th>
<th>$\Phi_2$</th>
<th>$D^g$</th>
<th>$G^g$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low education</td>
<td>0.96</td>
<td>0.34</td>
<td>0.23</td>
<td>0.17</td>
<td>0.26</td>
<td>0.33</td>
</tr>
<tr>
<td>Intermediate education</td>
<td>0.65</td>
<td>0.28</td>
<td>0.22</td>
<td>0.18</td>
<td>0.26</td>
<td>0.35</td>
</tr>
<tr>
<td>High education</td>
<td>0.56</td>
<td>0.49</td>
<td>0.45</td>
<td>0.49</td>
<td>0.41</td>
<td>0.52</td>
</tr>
</tbody>
</table>
Table 8
THE TOP (bottom) 10 OCCUPATIONS WITH HE HIGHEST (lowest) IMMIGRANT PRESENCE IN 2007

<table>
<thead>
<tr>
<th>The top 10 occupations with the highest presence of immigrants</th>
<th>$c_j^1 / t_j$ (%)</th>
<th>$t_j / T$ (%)</th>
<th>$c_j^1 / C^i$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>96. Construction laborers</td>
<td>45.28</td>
<td>2.41</td>
<td>6.69</td>
</tr>
<tr>
<td>94. Agricultural and livestock and fishing laborers</td>
<td>43.83</td>
<td>1.60</td>
<td>4.31</td>
</tr>
<tr>
<td>91. Domestic employees and other indoor cleaning personnel</td>
<td>40.43</td>
<td>6.59</td>
<td>16.37</td>
</tr>
<tr>
<td>50. Catering services workers</td>
<td>36.02</td>
<td>4.84</td>
<td>10.70</td>
</tr>
<tr>
<td>71. Workers at structural construction works and the like</td>
<td>30.14</td>
<td>5.13</td>
<td>9.51</td>
</tr>
<tr>
<td>74. Extractive industry workers</td>
<td>27.91</td>
<td>0.14</td>
<td>0.25</td>
</tr>
<tr>
<td>90. Unskilled retail workers</td>
<td>25.10</td>
<td>0.44</td>
<td>0.67</td>
</tr>
<tr>
<td>97. Manufacturing industry laborers</td>
<td>22.83</td>
<td>1.05</td>
<td>1.47</td>
</tr>
<tr>
<td>98. Transport labourers and freight handlers</td>
<td>20.88</td>
<td>1.24</td>
<td>1.59</td>
</tr>
<tr>
<td>78. Food, beverage and tobacco industry workers</td>
<td>20.74</td>
<td>1.00</td>
<td>1.28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24.44</strong></td>
<td><strong>52.84</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The top 10 occupations with the highest presence of immigrants</th>
<th>$c_j^1 / t_j$ (%)</th>
<th>$t_j / T$ (%)</th>
<th>$c_j^1 / C^i$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Executive and legislative power of the public administration; management of organizations of interest</td>
<td>0.00</td>
<td>0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>95. Mining labourers</td>
<td>0.00</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>82. Fixed machinery operator foreman</td>
<td>0.28</td>
<td>0.23</td>
<td>0.00</td>
</tr>
<tr>
<td>80. Team managers and those in charge in fixed industrial installations</td>
<td>1.00</td>
<td>0.14</td>
<td>0.01</td>
</tr>
<tr>
<td>62. Skilled workers employed in other agricultural activities</td>
<td>2.66</td>
<td>0.31</td>
<td>0.05</td>
</tr>
<tr>
<td>27. Professions associated with a 1st cycle university degree in natural and health sciences, except in optics, physiotherapy and related sciences</td>
<td>2.78</td>
<td>1.08</td>
<td>0.18</td>
</tr>
<tr>
<td>28. Professions associated with a 1st cycle university degree in teaching</td>
<td>3.90</td>
<td>1.92</td>
<td>0.46</td>
</tr>
<tr>
<td>23. Law professionals</td>
<td>4.51</td>
<td>0.75</td>
<td>0.21</td>
</tr>
<tr>
<td>40. Accounting, finance services employees, and production and transport support services employees</td>
<td>5.35</td>
<td>1.66</td>
<td>0.54</td>
</tr>
<tr>
<td>32. Technicians in child education, flight instructors, vehicle navigation and driving</td>
<td>5.45</td>
<td>0.22</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6.46</strong></td>
<td><strong>1.52</strong></td>
<td></td>
</tr>
</tbody>
</table>
Figure 15
DISTRIBUTIONS OF NATIVE WORKERS ACROSS VENTILES, EDUCATIONAL LEVEL (2007)
REFERENCES


SÍNTESIS

PRINCIPALES IMPLICACIONES DE POLÍTICA ECONÓMICA

España ha sido durante décadas un país de emigrantes, los cuales se han dirigido, principalmente durante el siglo XIX y la primera mitad del XX, hacia países de América Latina como Argentina, Venezuela, Uruguay o Cuba, y ya durante la segunda mitad del siglo pasado hacia países europeos con economías intensamente demandantes de mano de obra, como Alemania, Suiza o Francia. Este modelo se ha visto modificado en los últimos años, durante los cuales nuestro país ha pasado de ser un país emisor a convertirse en un país eminentemente receptor de inmigración, siendo en la actualidad uno de los principales nodos dentro de la red de flujos internacionales. Aunque esta inmigración es, en buena medida, de naturaleza laboral, la cuantificación de la segregación ocupacional de la población inmigrante en el mercado de trabajo español apenas ha sido abordada en estudios empíricos, a pesar de la importante contribución de la misma a la hora de explicar las diferencias salariales promedio entre nativos/as e inmigrantes.

Varias son las causas que podrían explicar las discrepancias entre ambos colectivos en su distribución por ocupaciones. Así, en primer lugar, las oportunidades de trabajo de los/as inmigrantes recién llegados probablemente dependen en buena medida de las redes sociales y familiares con las que cuentan en el país de llegada, lo que puede favorecer su concentración en determinado tipo de trabajos. En segundo lugar, las diferencias culturales y/o en el idioma entre los países de salida y llegada pueden dificultar los procesos de asimilación en el mercado laboral, especialmente si los empresarios del país receptor tienen actitudes discriminatorias. Y tercero, los activos relacionados con el capital humano que poseen los y las inmigrantes pueden alejarse de los acumulados por los/as trabajadores/as nativos/as, no sólo en relación al número de años de escolarización sino también respecto a los conocimientos específicos requeridos en el país de llegada.

La literatura ha destacado las negativas consecuencias asociadas a la existencia de elevados niveles de segregación ocupacional y/o residencial en la población inmigrante, por todo lo cual debería ser objeto de atención tanto en el ámbito político como en el académico. Así, la tendencia contrastada a concentrarse en trabajos de escaso status y nivel salarial afecta negativamente a los niveles de pobreza de este colectivo. Por otro lado, esto también afecta a cómo los otros grupos los ven y como ellos y ellas se ven a sí mismos/as, lo que puede condicionar sus logros futuros. Es más, un elevado nivel de segregación puede dificultar la integración de las generaciones futuras de ciudadanos/as, inmigrantes de segunda generación. Se ha llegado a afirmar, incluso, que la segregación potencia la pérdida de un “lenguaje compartido” y de unas “normas y valores culturales” comunes, lo cual dificulta la paz y la coordinación social.

Este trabajo ha mostrado que el extraordinario incremento que ha experimentado la población inmigrante en España en los últimos años ha ido acompañado de un
importante aumento de la segregación ocupacional de los/as trabajadores/as inmigrantes (aunque la actual crisis económica parece haber frenado dicha tendencia). La intensificación de la segregación ha sido consecuencia de dos factores explicativos. Por un lado, aquellas ocupaciones en las cuales la población inmigrante tendía a concentrarse inicialmente (principalmente empleo doméstico, y en el sector de la restauración y la construcción) incrementaron su peso en la economía, creciendo en mucha mayor medida que otras. Y por otro lado, el empleo creado fue ocupado principalmente por trabajadores/as inmigrantes, lo cual ha intensificado la concentración de este colectivo en unas pocas ocupaciones (habitualmente con salarios bajos).

En relación con el estudio de las características, este trabajo ha mostrado que los años de residencia en España es una variable relevante a la hora de explicar la segregación de este grupo. Así, los niveles de segregación ocupacional tienden a disminuir con la antigüedad en el país. Con respecto al nivel educativo, este estudio también revela que la distribución entre ocupaciones de la población inmigrante altamente cualificada se aleja de la población nativa con similar nivel educativo, al estar ésta última mucho más concentrada. Esto sugiere que el primer grupo trabaja tanto en ocupaciones acordes a su nivel educativo como en otras donde se intuye un elevado nivel de sobrecualificación. Por último, los resultados también reflejan la existencia de mayores niveles de segregación entre las mujeres inmigrantes que entre los hombres inmigrantes, identificándose, además, notables diferencias en los niveles de segregación experimentados por los diferentes subgrupos dentro de la población inmigrante según sea su región mundial de origen.
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