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THE SPANISH CASE

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OCCUPATIONAL MOBILITY OF IMMIGRANTS IN A LOW SKILLED ECONOMY. THE SPANISH CASE *

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ABSTRACT: This research examines the occupational mobility of immigrants between their countries of origin and Spain, and its main determinants. It is based on microdata from the Encuesta Nacional de Inmigrantes and the use of an international index of occupational status, the International Socio-Economic Index. The empirical evidence shows that immigrants experience, in general, an intense occupational downgrading in Spain with regard to their countries of origin. This is explained largely by the intense degradation that they often experience when they arrive, since the subsequent occupational recovery during the stay in Spain is limited. Occupational downgrading associated to the entry in the Spanish labour market is usually more severe for women, for better-educated immigrants and those from developing countries. The subsequent recovery confirms the hypothesis of a deep U-shaped occupational mobility for the last two groups, while women have greater difficulties to advance occupationally. Reside in Spain, validating foreign studies, learn Castilian and regularize the documental situation improve occupational status, but, except in the latter case, slowly. Get the first job in Spain through informal networks has a negative effect on occupational attainment. Finally, the more time looking for employment and job search including geographic mobility translates into a better occupational improvement, while unemployment has a negative effect.

JEL Codes: J15, J24, J61, J62

Keywords: Immigration, occupational mobility, Spain

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1. Introduction

The economic and social integration of immigrants in the host countries is a topic which has received much atention in the economic literature on international migrations (Borjas, 1999). This integration depends largely on their attachment to the labour markt and, hence, both in their capacity to find work and on the type of work they obtain. For this reason, the occupational distribution of immigrants and its evolution over time has been the object of a considerable volume of research, with especial attention to the reasons why immigrants access different types of occupations, and very especially concentrate in those occupations with lower qualifications and, hence, related to precarious jobs (e.g., Green, 1999 and Barrett and Duffy, 2008).

The aim of this research is to examine the occupational mobility of immigrants from their countries of origin to Spain, and to identify the main explanatory factors of this process. The empirical analysis is based on microdata from the Encuesta Nacional de Inmigrantes. This survey is one of the very few available statitical sources at the international level with detailed information on the employment situation of immigrants in their home and host countries countries. Nonetheless, it has certain distinctive features in relation to the surveys available to other countries which favour a more appropriate analysis of occupational mobility of immigrants. This allows to extend and enrich the limited international evidence on the occupational mobility of migrants between countries of origin and destination, an issue that has been examined previously for a small sample of countries (Akresh, 2008; Chiswick, Lee and Miller, 2005; Bauer and Zimmermann, 1999; Rooth and Ekberg, 2006 and Helgertz, 2008). Yet, these studies cover only technologically advanced countries with employment structures characterized by a high presence of highly-skilled jobs. For this reason, it is interesting to examine whether the same patterns observed there are reproduced in less technologically advanced contexts, in particular in a country like Spain with an employment structure based on medium and low-skilled occupations. On the other hand, the Encuesta Nacional de Inmigrantes is the only survey at the Spanish level including retrospective information about the employment trajectories of immigrants in origin and host countries. This is a differential aspect of our research in relation to previous studies for the Spanish labour market, which have focused exclusively on the analysis of occupational distribution and mobility of immigrants during their residence in Spain (Amuedo and De la Rica, 2007, 2009 and Alcobendas and Rodríguez-Planas, 2009).

We use in the empirical analysis an international index of occupational status (the International Socio-Economic Index), which has been barely used for the examination of occupational mobility between countries (to our knowledge, the only precedent is Akresh, 2008), although it offers significant advantages. On the one hand, the use of an internationally

standardized measurement of occupational status helps the comparison of immigrants from a heterogeneous set of countries. On the other, it provides an exact quantification of occupational status, which facilitates and broadens the scope of the analysis of immigrants' occupational mobility and the testing of various hypotheses concerning the phenomenon.

Our study makes a number of important contributions. First, it analyses the occupational mobility and status of immigrants in Spain, a country with an economy which is characterized by a strong presence of low-skilled jobs and as such is quite different from those of the (still few) countries for which empirical evidence is available. Second, it performs a complete study of mobility from the point of view of immigrants' job histories, as it analyses mobility both from the country of origin to Spain and also after arrival in this country¹. Although limited to recent immigration, the analysis covers an interval of up to ten years, significantly longer than the periods considered in similar analyses in other countries (between three and four years) which were limited by the information available (see Chiswick, Lee and Miller, 2005, Mahuteau and Junankar, 2008 and Akresh, 2006, 2008). This longer time-span means that our study is better suited to analysing the possible occupational recovery. Moreover, we use a quantitative index of occupational status, the International Socio-Economic Index, which has been used only very sparingly to date in spite of the numerous advantages it offers for empirical analysis. Similarly, the wealth of information included in the ENI permits the analysis of the effect of multiple determining factors of occupational mobility, including all those studied to date in the international literature and also others relating to entry in the labour market which are considered here for the first time. These variables are estimated for the set of immigrants as a whole, and not only for specific groups defined by factors such as the type of migration (Rooth and Ekberg, 2006) or legal status in the host country (Akresh, 2008; Chiswick, Lee and Miller, 2005).

As regards the main findings, it is observed that the occupational status of immigrants is, in general, substantially worse in the Spanish labor market than in their countries of origin. This is explained by the initial downgrading they experience when they enter the Spanish labor market, but also due to their slow occupational progress during their stay in Spain. This pattern is in line with the assumptions of theoretical models that predict a U-shaped evolution of the occupational status of immigrants (Chiswick, Lee and Miller, 2005 and Duleep and Regets, 1999), but only partially, since the intense initial occupational downgrading is considerably more intense than the subsequent limited recovery. Moreover, there exist significant differences between types of immigrants in the occupational mobility profile and they are particularly pronounced in the occupational trajectory associated with the incorporation into the Spanish labor market. International comparative evidence shows, in turn, that Spain is one of the developed countries

where the occupational status of immigrants is lower and is farther from that of the entire workforce. Finally, the results of multivariate analysis on the determinants of occupational mobility of immigrants in Spain consolidate the results of previous studies on the subject for other countries and permit to identify the effect of additional relevant factors, such as the legal status, language proficiency and validation studies.

The structure of the article is as follows. Following this introduction, the second section reviews the economic literature regarding the occupational mobility of immigrants. The microdata and the variables used in the empirical analysis are described in the third section. In the fourth section we present the results of the descriptive analysis and econometric estimates. Last, the paper ends summarising the main conclusions.

2. Literature revision

The literature on occupational mobility and attainment is abundant, but until recently these features have not been studied in depth in relation to immigrant groups. In immigrants the phenomenon of assimilation has received a considerable amount of attention, but the study of occupational mobility requires more complete statistical information. Both lines of research assimilation and occupational mobility - start from the hypothesis that the transferability of human capital between countries is limited. The human capital accumulated in the country of origin may not be entirely transferable to the host country, since it may not be of sufficient quality, or it may be difficult to apply to the new economic, social and productive context. As a result, occupational downgrading is common among immigrants, associated with a large gap in earnings vis-à-vis natives of similar characteristics. The less transferable the human capital from the country of origin (either because of the cultural and technological disparities between the home and host countries, or because of differences in regulations, the recognition of qualifications and job opportunities), the greater the occupational downgrading and the resulting initial gap in earnings. Over time, immigrants adapt to the requirements of the host country's labour market as they gain experience in their new jobs, gain familiarity with the language, and possibly embark on new studies. The human capital that immigrants accumulate in this way improves their employment prospects and in time brings their earnings closer to those of natives with similar qualifications.

In the case of occupational mobility it would be observed a U-shaped pattern characterized by occupational downgrading on arrival and a gradual improvement as the duration of residence in the host country increases (Chiswick, Lee and Miller, 2005). This general

¹ Some of the studies available either lack information relating to the country of origin (Green, 1999 and Barret and Duffy, 2008) or do not present data on the first job in the host country (Bauer and Zimmermann, 1999).

hypothesis applies to all immigrants, although it admits certain variations according to characteristics such as level of education, country of origin, type of migration and social networks, which may influence the scale of the initial downgrading and the later recovery. The standard hypotheses hold that advanced studies are more difficult to transfer internationally than basic or more general studies, but also allow faster subsequent recovery as a result of increased investment in human capital, because of lower opportunity cost and a higher expected return (Duleep and Regets, 1999). Therefore, the higher the educational level of the immigrants, the deeper the U-shape. Secondly, the level of transferability will depend on the cultural, economic and technological distance between the country of origin and the host country; that is, the less developed the immigrant's country of origin, the deeper the U-shape created. As regards the type of immigration, we would expect economic immigrants to weigh up their decision to migrate more carefully, which may allow them to minimize to some extent the initial downgrading (a flatter U-shape); in contrast, family-based immigrants and, above all, political refugees prioritize other criteria, and in their case a greater initial downgrading is expected (and a deeper U-shape). Finally, immigrants with access to personal or social networks (formed by compatriots already established in the host country, or help organizations) will have information on, and contacts inside, the host country's labour market which may well mitigate their initial downgrading and generate a flatter U-shape. Nonetheless, it may also be that the social capital accumulated by the network is restricted to a particular segment of the labour market, in which case the newcomer's job prospects are limited to this segment; this may result in a significant occupational downgrading, and even a deeper U.

The empirical evidence available confirms the theoretical proposal (the U- shaped pattern of occupational mobility) and revalidates a set of related hypotheses. Hence, it is observed that the higher the level of studies, the deeper the U; that non-economic immigrants present a deeper U and that immigrants from developed countries have a flatter U than immigrants from developing countries (Bauer and Zimmermann, 1999; Chiswick, Lee and Miller, 2005; Akresh, 2008). As regards social networks, Mahuteau and Junankar (2008) find that informal networks lead to poorer occupational attainment, confirming the second of the effects mentioned above in relation to these structures (i.e., the negative one).

However, the evidence supporting these conclusions is limited to countries like the US (Akresh, 2008), Australia (Chiswick, Lee and Miller, 2005; Mahuteau and Junankar, 2008), Germany (Bauer and Zimmermann, 1999) and Sweden (Rooth and Ekberg 2006; Helgertz, 2008). The sample of countries is small, because this kind of analysis requires information on immigrants' occupations in both the home and the host countries, which is only very rarely available. In addition, it is noteworthy that these studies have been carried out only in technologically advanced countries with employment structures characterized by a high presence

of highly-skilled jobs. It would be very interesting to examine whether the same patterns are reproduced in less technologically advanced contexts, in particular in countries with employment structures based on medium and low-skilled occupations. In this line, Spain is an ideal setting for this kind of study, since it is a developed country with a higher than average percentage of low-skilled jobs, and a clear polarization of employment in recent years with a sharp fall in medium-skilled jobs (OECD, 2008a). Because of the comparative abundance of low-skilled jobs and the lack of medium-skilled jobs, immigrants' opportunities may be restricted to low-status occupations and they may have real difficulties later on as they try to move up the occupational ladder. These features mean that the Spanish labour market differs substantially from the ones in the countries mentioned above and make Spain an interesting laboratory for contrasting the validity of the model in a substantially different context. In addition, in recent years Spain has experienced immigration on a massive scale and a high presence of foreign workforce (OECD, 2008b). The combination of these two features makes Spain a unique case inside the advanced economies.

Several recent studies have analysed the occupational distribution of immigrants in the Spanish labour market. Their conclusion is that immigrants present a certain level of segregation with respect to the native-born population and that this segregation persists over time. Amuedo and De la Rica (2009) examine the degree of substitutability of immigrants and natives in the Spanish labour market using the *Encuesta de Población Activa* (the Active Population Survey), and show that recent immigrants tend to be employed in low-skilled occupations, complementary to those held by natives. Using the same database, and the *Censo de Población*, respectively, Alcobendas and Rodríguez-Planas (2009) and Amuedo and De la Rica (2007) observe that even though immigrants present a higher occupational mobility than natives (especially immediately after arrival) and experience some occupational progress over time, assimilation is limited and in general there is no convergence in the occupational distribution of the two groups.² The effects of this phenomenon are highly significant. In this sense, Simón, Sanromá and Ramos (2008) show that occupational segregation is one of the main reasons for the significant gap in earnings between immigrants and natives. Similarly, the segregation of immigrants in low-skilled activities and occupations has been one of the main causes of the marked rise in unemployment in this

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² Two earlier studies have examined the occupational mobility of immigrants in Spain using the ENI. Caparrós and Navarro (2009) confirmed the existence of a U-shaped pattern of mobility, with downgrading compared with the job held in the country of origin and a later recovery, focusing on the effect of educational level and the area of origin. Stanek and Veira (2009) analyse only occupational downgrading as a result of emigrating to Spain, paying attention to the incidence of human capital and social networks. So the current study presents a considerably broader scope as it includes in the analysis a broader set of explanatory factors and the immigrants' complete job history between the country of origin and the job currently held in Spain. Another difference worth highlighting is that the use of the occupational status index ISEI allows quantification of the magnitude of the occupational trajectories and thus a more accurate comparison of the predictions of the theoretical models.

group (significantly greater than among the native-born population) during the current economic crisis.

The database used in this article is the Encuesta Nacional de inmigrantes (ENI: the National Immigrants' Survey). This is one of the few surveys available internationally which compiles retrospective information on the last job held by immigrants in their country of origin and their first job in the host country, and also on their employment at the time of the survey. This allows us to carry out a complete analysis of their occupational trajectories between the countries of origin and their incorporation into the host economy, as well as during their stay in this country. Among the distinguishing features of the survey with regard to those existing in other countries is the inclusion of a wider comparative information on the characteristics of immigrants. This makes it possible to develop a comprehensive analysis of the determinants of mobility, including all the factors considered previously in the international literature, as well as others discussed here for the first time. Thus, while ENI allows to contrast the hypotheses concerning the effect on occupational mobility of educational levels, areas of origin, type of immigration (or reasons to migrate) and personal and social networks, it also makes it possible consider, in contrast with existing studies for other countries, the impact of some additional elements highlighted by the economic literature (Eurostat, 2008), such as their knowledge, the language or their legal status or aspects of the job search process.

As far as language is concerned, we test the hypothesis that knowledge of the language allows access to jobs that involve more complex tasks and personal interaction. These jobs reflect higher occupational attainment and, in the case of immigrants who already know the language on arrival, a lower initial downgrading. As regards immigrants' legal status, we assume that illegality condemns immigrants to work in the underground economy, that is, to an intense occupational downgrading. Their subsequent legalization allows them access to better jobs, creating a job history in the form of a deep U-shape. However, the expectation that legalization will take a long time discourages investment in human capital and is an obstacle to later improvement. Finally, the variables referring to seeking work are related to the intensity of the search and the reservation wage. The theoretical hypothesis is that the higher the number of municipalities in which an immigrant has resided, the greater the intensity of his/her job search and the higher the investment made in obtaining information. This will have a positive effect on the quality of the match. As regards the time taken to find the first job, it is assumed that this will depend to a large extent on the immigrant's liquidity on arriving in Spain: a shorter time spent seeking work will be associated with a lack of liquidity, a lower reservation wage and a more intense occupational downgrading, generating in all likelihood a deep U-shape pattern of mobility. Finally, a longer duration of the episodes of unemployment in Spain may be caused by the low intensity of the job search or by a greater mismatch; in addition, it may mean that the

human capital becomes obsolete. The hypothesis is that this set of elements will be associated with, or may even cause, a deterioration in occupational attainment, and so the improvement in the Spanish labour market will be slower.

3. Data

3.1. The Encuesta Nacional de Inmigrantes 2007

The ENI (Encuesta Nacional de Inmigrantes 2007) is a survey prepared by the Spanish National Statistics Institute (Instituto Nacional de Estadística) in order to obtain detailed information on the international immigration in Spain, supplementing information gathered from regular sources of data. The ENI covers all of the national territory of Spain and the data collection was based on the Padrón Municipal de Habitantes and conducted between November 2006 and February 2007, using the week prior to the interview as the reference period³. The original survey sample comprises approximately 15,500 individuals.

The ENI provides detailed information on the sociodemographic characteristics of immigrants (e.g., age, gender, nationality, country of birth, marital status, schooling, legal status, knowledge of languages or year of arrival in Spain) and the occupation and other characteristics of their jobs at three different points of time: before leaving the origin country (last job in origin), just after arrival to Spain (first job in Spain) and at the moment of carrying out the survey (current job in Spain). The availability of this information is particularly useful in the context of our study. In fact, the ENI is the only statistical source at the Spanish level (and one of the very few available at the international level) including retrospective information about the employment trajectories of immigrants in origin and host countries. This is a differential aspect of our research in relation to previous studies that have only focused on occupational progress of immigrants within the Spanish labour market (Alcobendas and Rodríguez-Planas, 2009 and Amuedo and De la Rica, 2009). The possibility of considering transitions between origin and host countries is an interesting issue that has been scarcely analyzed at the international level.

The ENI defines immigrants as any individuals born abroad (regardless of whether they have Spanish nationality or not) who at the time of doing the interview had reached at least 16 years of age and had resided in a home for a year or longer (or, alternatively, in the case of individuals with less than one year's residence in Spain, had the intention to remain here for at least a year). The only exception is individuals born outside Spain who have possessed Spanish nationality from birth, but had not reached two years of age by the time of arrival in Spain. In

³ More detailed information on the contents of the ENI, the sample design and the data collection procedure used is available at the web page of the National Statistics Institute (<u>www.ine.es</u>).

that case, Spain was considered as their country of origin. We have excluded these individuals from our analysis.

Taking into account the objective of this study, the analysis focuses on those immigrants with employment experience in origin and that at the time of the survey were working in Spain both as self-employed or employee. Furthermore, the analysis is limited to those immigrants who have arrived in Spain from 1997. Although the ENI includes retrospective information on immigrants, it is composed of a single cross section. Taking this into account, if the full sample were considered for the analysis of occupational mobility, we could incur in a bias for three different reasons: changes in the composition or quality of immigrants arriving at different points in time (Borjas, 1985 and 1995), business cycle effects on the results of entrants into the labor market (Aslund and Rooth, 2007) and the existence of return migration - or to a third country (Constant and Massey, 2003; Dustmann and Weis, 2007; Lubotsky, 2007). For this reason, we analyze only the occupational trajectories of immigrants arriving in Spain between 1997 and 2007, in order to reduce the effects of the three mentioned problems. First, because of the relative homogeneity during this period of immigrants according to their region of origin (Reher et al., 2008). Secondly, due to the fact that the 1997-2007 period is a homogeneous phase of sustained growth and strong job creation, which is expected to minimize both the business cycle effects on the employment situation of immigrants and the importance of return migrations in relation to economic downturns.

Last, we have also excluded from the original sample observations for individuals with incomplete information on the variables of interest, for those with ages below 16 year old or above 65 at the time of the survey and with ages below 16 year old or over 55 years when arriving in Spain, as well as for those who have completed their studies in Spain. Our final sample consists of 4,543 immigrants.

3.2. Variable definition

One of the central aspects of our empirical analysis is the use of an international index of occupational status. This is the International Socio-Economic Index (hereafter, ISEI), a standardized measure of occupational status developed by Gazemboon and Treiman (1996) using information from 16 countries. This index combines weighted information about the educational requirements and the potential earnings of each occupation and takes continuous values which lie originally in a range between 16 and 90. However, in the case of the ENI, where the occupational breakdown covers 20 occupations, it takes values between 16 and 70 (more details on the occupational breakdowns used in the work and the values of the status of occupations according to the ISEI scale can be found in Table A.2 of the Annex). The advantages associated with its use are that it facilitates comparison of the occupational status of immigrants coming from a wide

group of countries and, as it quantifies accurately the occupational status, it allows us to test different hypothesis on the occupational mobility of immigrants.

In order to break down the analysis by area of origin, immigrants have been grouped by country of birth, distinguishing between developed and less developed countries⁴. In turn, developing economies have been further broken down distinguishing between Latin America, Eastern Europe and the rest of the world.

The availability of information in the survey allows to capture immigrants' legal status, reflecting whether or not they have the permits to become legally contracted employees under current Spanish law⁵. Moreover, there is information about Spanish proficiency⁶ and the highest educational level achieved, distinguishing in this case if the study was recognized in Spain. The ENI permits also to control for additional socio-economic variables (gender, marital status, the number of children in the household and the region of residence), for other aspects related to the migratory experience (reasons for emigration, previous residence in a developed country), the way they obtained their first job in Spain (existence of support networks, job search method, job offer before migration and time to find the first job) and the present situation (number of changes of the municipality of residence, years of residence in Spain and unemployment periods longer than one month). As part of this information is available just for a particular moment of time (i.e. last job in origin, first job in Spain or current job in Spain), its inclusion or not in the models used in the empirical analysis will be strictly related to that fact.

Table A.1 in the Annex contains the descriptive of the sample. The characteristics of immigrants covered by the survey generally fit the profile of recent immigration in Spain. Without trying to be exhaustive, immigrants come mainly from developing countries (90.9%), particularly from Latin America (53.3%) and from Eastern Europe (26.7%), with a higher share of men (53.4%) and individuals of intermediate ages (the average age at the time of the survey is around 35 year old and age at arrival is about 31 year old). Most of them have finished the second stage of secondary studies (45.4%) and the percentage of university graduates is high (20.1%), while only a 5.2% have achieved recognition of their studies. Most emigrated to Spain for work (70.8%) and 45.1% obtained their first job through personal contacts. 66.3% have experienced

⁴ Developed countries include the EU-15 countries, Norway, Switzerland, Iceland, Cyprus, Malta, the small European principalities, the United States, Canada, Israel, Japan, Australia and New Zealand. All other countries have been considered less developed.

⁵ The variable is dichotomous and reflects whether immigrants state that they have any of the following documents: permanent residency authorisation; temporary residency authorisation, EU residence permit (except in the case of Romanian and Bulgarian workers who, despite being EU citizens, could not become legally contracted workers in Spain temporarily at the time of the survey); refugee status or asylum application. This category also includes immigrants whose nationality is Spanish, from other EU member state (excluding Bulgaria and Romania) or from non-EU members of the European Free Trade Association (i.e., Liechtenstein, Iceland, Switzerland and Norway).

⁶ This dichotomous variable takes a value of 1 for individuals whose mother tongue is Spanish or, if not, for those who state that they can speak Spanish 'well' or 'very well'.

unemployment spells longer than one month between their arrival in Spain and the time of the survey. Finally, the average number of years spent in Spain is 4.1, the vast majority (87.5%) were in a situation of legality in terms of work permits and had a good knowledge of Spanish (81.7%) and the 77.5% of them had changed their municipality of residence during his stay in Spain.

4. Results

4.1. Descriptive evidence

Table 1 and Figure 1 contain information on the occupational status of immigrants in their origin countries and in Spain. In the latter case a distinction between the status of the first job performed by the immigrant in Spain and the current work, corresponding to the timing of the ENI, is done. The information refers to the total sample and it is also presented broken down by gender, educational level, region of origin and other additional factors.

At a first glance, these results show that immigrants experience a severe loss of occupational status when they enter the Spanish labor market. Thus, while the average occupational status in their countries of origin is 40 points in the ISEI scale, the status of the first job in Spain is substantially smaller, 27.8 points. During his stay in Spain there is some improvement in their occupational status (the average for the current job is 30.8 points), which is apparently associated with the duration of the stay (the status shows a rising trend over the years of residence in Spain according to Table 1). However, this improvement is limited and clearly lower than the initial loss of status, which is the main reason why the occupational status of immigrant workers in Spain is substantially worse than the one they had in their countries of origin.

This pattern, characterized by an intense downgrading on arrival in Spain and a limited further recovery, follows the predictions of the model by Chiswick, Lee and Miller (2005) and Duleep and Regets (1999), involving a U-shaped evolution of the occupational status of immigrants. However, it does so only partially, since the initial downgrade is more intense than the subsequent recovery and there is, therefore, a marked asymmetry between the two occupational trajectories.

The described pattern is observed, in general, for all types of immigrants, although the theoretical predictions regarding the varying depth of the U for the different groups analyzed are also confirmed. Specifically, and as shown in Figure 1, the most marked differences are related to educational levels, reasons for emigrating, the area of origin and the existence of support networks. It is therefore confirmed, similarly to the international literature summarized in the

⁷ INE's monography "Informe Encuesta Nacional de Inmigrantes (ENI-2007)" provides a complete description of immigrants according to the ENI survey.

introduction, that the higher the educational level, the deeper the U, than those immigrants from developed countries have a flatter U compared with immigrants from developing countries and, last, that informal networks lead to poorer occupational achievement, confirming the negative effect previously refereed. The only exception of the Spanish case when compared to the international evidence is that economic migrants do not present a deeper U.

The varying depth of the U of different groups of immigrants depends, on the one hand, on the greater or lesser intensity of the initial downgrading and, on the other hand, on the extent of the recovery once in Spain. However, as shown in Table 1 and Figure 1, although there are marked differences in the initial downgrading, the subsequent improvement is relatively similar for all immigrants. The similarity is especially pronounced for men and women and, with the exception of immigrants from developed countries, for all individuals regardless their region of origin. There are only some significant differences in terms of educational levels, with a higher recovery for more qualified workers, and in the case of geographical mobility.

The intense occupational degradation experienced by immigrants in Spain is consistent with its shift from occupations with high skill requirements in their origin countries to occupations with lower relative levels of qualification in the Spanish labor market. Indeed, table 2 shows that while the occupational distribution of immigrants in their origin countries was characterized by a high proportion of individuals in skilled (25.6%) and semi-skilled occupations (59.3%), and only a relatively small share in unskilled occupations (11.1%)⁸, the occupational distribution in Spain is characterized by a significantly lower share in skilled occupations (11%) and a clearly higher share in the unskilled ones (33.9%).

In order to examine to what extent the above phenomena are general, figures 2 to 4 contain the distribution (approximated by density functions) of changes experienced by immigrants in their occupational status on arrival in Spain and during their stay in Spain. This evidence confirms that the occupational downgrading associated with their entry to the Spanish labor market tends to affect most immigrants: 65.6% of immigrants found a job with a lower occupational status than the one in their countries of origin, while 22.3 % maintained their status and only a 12.1% improved it (Figure 2). The same phenomenon is observed for the current work (Figure 3), since also in this case a majority of immigrants are employed in Spain in a lower-status occupation than in origin (57.4%) and only a few have maintained the same (25.7%) or have improved occupationally (16.9%). These results are consistent with the fact that for most immigrants their occupational status has remained unchanged while being in Spain (58.2%), regardless of if they have changed jobs (24.9%) or not (33.3%). Only a minority have been able

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⁸ We follow here the terminology of OECD (2008) on the types of occupations in terms of their skill level. Note that with the occupational breakdown in the ENI there is a particular occupation for which is not possible to assign a specific level of qualification.

to improve the occupational status of his first work in Spain (29.5%), and there is even a part of them that have experienced a further loss of status (12.3%).

In order to bring the Spanish case in international perspective, Table 3 contains information on the distribution and the occupational status of immigrants in several developed countries, as well as the occupational status of the entire workforce in each of these countries. This international comparison provides several interesting findings. A first result is that Spain is one of the developed countries where the occupational status of immigrants is comparatively lower, and that this can be explained by the high relative presence of immigrants in unskilled occupations. A second result is that, although in all developed economies the status of immigrants tends to be generally lower than that of all workers, the difference is especially marked in the Spanish case. Furthermore, from this analysis we can conclude that Spain has a strong coincidence with the United States in terms of the comparatively low occupational status of immigrants. The United States is actually one of the few countries where there is similar evidence to the one considered in this paper as Akresh (2008) used the same ISEI scale and a source of information on occupational trajectories of immigrants with a structure similar to that of ENI. The comparison of both countries shows that the occupational trajectories of immigrants are relatively similar (Table A.3). Thus, also in the United States, when immigrants arrive, they experience a drop in their occupational status that improves along time only to a limited extent¹⁰.

3.2. Multivariate analysis

The set of descriptive evidence above shows, in summary, that immigrants experience a very intense downgrading between their countries of origin and Spain, a decrease in their occupational status that is explained largely by the initial degradation which occurs when entering the Spanish labor market, as the subsequent occupational achievement is generally very limited. To further characterize the occupational mobility of immigrants and to analyse its determinants, in this section we present the results of a multivariate analysis of the phenomenon.

A first set of econometric models is used in order to identify the main factors affecting the occupational downgrade of immigrants when their final occupational status in the Spanish labor market is compared to the one they had in their origin countries. Thus, Table 4 contains the results of ordinary least squares estimates of models where the dependent variable is the difference in occupational status between the current job in Spain and their last job in the origin

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⁹ Note that the information on the distribution and occupational status of immigrants for Spain is highly coincident with that of the ENI when considering the same occupational breakdown of all the immigrants (and not just recent immigrants, as we do in this study). More information on the comparability of occupational breakdowns is available in Table A.2 of the Annex.

¹⁰ This pattern is also consistent with that observed by Chiswick, Lee and Miller (2005) for recent immigrants in Australia. In this case, however, the comparison must be made with caution, to the extent that these authors use a specific scale developed for this country to measure the occupational status of immigrants.

countries (Models I and II) and, alternatively, the occupational status achieved in Spain (model III).

Looking at the results, it is confirmed that the length of the stay in Spain is related to the access to higher relative occupational status, allowing immigrants to mitigate the loss of occupational status with regard to their origin country. However, this improvement is very limited, to the extent that an additional year of residence only leads to an improvement in occupational status of about 0.3 index points.¹¹

The results of the econometric estimation also confirm that occupational degradation with the arrival in Spain is much more marked for women than for men, a result that probably reflects the strong occupational segregation of immigrant women in low-status jobs. The limited transferability of human capital from developing countries leads to a poorer occupational status for immigrants from such regions. The difficulty in transferring tertiary studies explains the higher drop in occupational status of those immigrants with comparatively high levels of education. Consistent with this idea, models show evidence that the recognition of studies in Spain provides access to a relatively higher occupational status. It should be noted, in any case, that the coefficients of the variables associated with the educational level change their sign when the initial occupational status is entered as an additional explanatory variable (model II). This is a result of interest, as it suggests that the strong downgrading suffered by immigrants with higher educational levels is mainly due to their higher status occupational in origin, as when controlling for this factor a high level of education helps to mitigate the occupational degradation.

The occupational status at origin shows, in fact, a negative coefficient relatively close to unity (-0.84) and its introduction significantly increases the explanatory power of the model (the adjusted coefficient of determination goes from 0.15 to 0.55), suggesting that the initial occupational status is a key determinant of the magnitude of the loss of occupational status for immigrants in Spain. With the exception of the previously mentioned effect of dummy variables associated to schooling levels, the introduction of this variable in the model specification does not produce significant changes in the signs of other coefficients (although in some cases, such as for the dummy variables regarding gender or the area of origin, their magnitude shows some variations)

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¹¹ In fact, it is possible that the occupational advancement is somewhat higher, since some of the variables included in models I and II may be capturing the effect of some occupational enhancement mechanisms associated with the length of the stay, as in the case of recognition of studies, knowledge of Spanish or obtaining the work permit (legal status). In this sense, when the model is estimated after the removal of the regressors that can capture some of the effect on improving of the years of residence in Spain, the improvement is estimated at 0.6 points per year of residence in Spain.

Potential experience in origin, approximated by the immigrant's age¹², does not seem to affect the occupational status in Spain, a result that can be interpreted in the sense that it is scarcely transferable to the Spanish labor market. Regarding the reasons for migration, the results show that migration for economic reasons leads to a greater loss of occupational status when compared to migration for family or political reasons. This result is contrary to the previously mentioned theoretical assumptions and to the results by Chiswick, Lee and Miller (2005) and Akresh (2008). The fact that information about the immigrant's visa is not available in the ENI, but only about the reasons for migration reported by the immigrant himself, can contain a high element of subjectivity that may explain our different results. Additionally, if the political immigrant or the one coming for family reasons has the help of family or groups or political or humanitarian associations that can provide him with the economic support or contacts, he will be able to access to better jobs. Variables related to job search or to the consequences of unemployment have the expected signs. A longer duration of unemployment leads to a further decline in occupational status and to a lower index value. Geographic mobility, a variable related to the intensity of the job search and the probability of a better matching, has a positive sign and it is statistically significant in model I. When including the occupational status at origin in model II, this variable has no significant effect, which clearly shows the interrelationship between the two variables. Thus, the higher downgrading of those with a high status at their origin country is offset by a more intense job search and a greater mobility around Spanish territory. As a result, the final outcome in terms of occupational status is not significantly different to the rest. Last, the Spanish proficiency and having a work permit are associated with a lower loss of status with regard to origin and to a higher occupational status in Spain, thus confirming the hypotheses advanced above.

Table 5 shows the results of estimating models where the dependent variables are the change in the occupational status between the first job in Spain and the last job in the country of origin (Models I and II) and the occupational status of the first job in Spain (model III). As noted previously, the interest in these variables is related to the fact that the occupational status of the first job in Spain largely determines the current occupational status of immigrants.

It is noteworthy that, for most of the common explanatory factors with the previously estimated models, results are in general very similar. In particular, the downgrading with respect to occupational status in origin is significantly higher for women, and for immigrants from developing areas and with higher levels of education, so that the occupational mobility of these two groups shows a U-shaped, but with greater depth. It is also important to highlight that the

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¹² By including in the model the variable years of residence in Spain, the variable related to the age approximates the effect of potential experience in origin.

inclusion of the occupational status in the last job in origin affects the sign of the coefficients associated to the educational levels, evidence already obtained in the models in Table 4.

The availability in the ENI of different information for the first job and the current work in Spain, as described in the previous section, makes possible to analyse the effect of additional factors on the occupational status, in particular those related to social networks and informal contacts. Thus, it is worth noting the positive impact associated with residing in a developed country before the emigration to Spain, which reveals once again that human capital accumulated in developed countries is transferable to the Spanish labor market, even if those individuals were born and initially lived in developing countries. The duration of the first job search in Spain has a positive impact by reducing the initial occupational degradation and leads to a better occupational achievement in the first job. It is therefore confirmed the previously mentioned hypothesis that a lower liquidity restriction and higher possibilities to wait for accepting a first job in Spain improves the quality of the matching. As for the effect of the variables approximating the presence of social networks, the results show no difference in downgrading or in the occupational status if the immigrant has to get who to or not. In contrast, the effect of accessing to a first job in Spain through relatives or other personal contacts is clearly negative. This confirms the negative impact of informal networks on the occupational attainment of immigrants found by Mahuteau and Junankar (2008).

The last part of our empirical analysis is related to the identification of the determinants of immigrants' occupational mobility during their stay in Spain. Table 6 contains estimates of models where the dependent variable is the difference in the occupational status between the current job and the first work in Spain¹³. The obtained results confirm that years of residence have a positive, but reduced, effect on occupational mobility. The recovery between the first and the current job in Spain is comparatively higher for men, thus confirming the major difficulties faced by immigrant women in the Spanish labor market. The model results also confirm the predictions by Duleep and Regets (1999), since the improvement is greater the higher the educational level. However, the magnitude of the improvement is clearly influenced by the occupational status achieved in the first job in the Spain and the type of occupational transition experienced when entering the Spanish labor market. In particular, a more intense initial downgrading seems to facilitate a greater recovery afterwards.

One interesting result mentioned above is the existence of differences in labor market outcomes of immigrants depending on their gender and geographical areas of origin, as immigrant women and individuals from developing regions experience a higher downgrading. In order to assess to what extent these differences are related to the explanatory factors in earlier

¹³ These models have been estimated only for those immigrants changing their job during their stay in Spain.

models, now we estimate the models separately for men and women and depending on the areas of origin of immigrants (distinguishing between developed and developing economies and, within them, between Latin America, Eastern Europe and rest of the world). The results are shown in tables 7, 8 and 9.

In the case of the disaggregated analysis by gender, there is a high coincidence between the determinants of occupational mobility of men and women, albeit with certain exceptions. One of these exceptions is related to the regions of origin: women from developed countries experience no further downgrading than those from developed countries in relation to men. Thus, it is confirmed that the segregation of women in low-status jobs affects specifically women from developing countries. Regarding the occupational mobility between origin and the current job in Spain, unemployment episodes negatively affect men but not women. This differential behaviour may be related to a lower human capital obsolescence due to unemployment in the case of jobs at the bottom of the occupational ladder, which are performed mostly by women. In the transition between origin and the first job in Spain, previous residence in a developed country before coming to Spain is more beneficial to women, while being able to dedicate more time to find the first job in Spain is more beneficial to men. This confirms that the segregation of women is a structural feature and that it is not reduced by a more intense job search. Finally, in the case of occupational mobility in the Spanish labor market (the change between the first and current job), the main difference is that the higher the downgrading experienced upon arrival, the greater the subsequent improvement for men, but not for women, thus confirming the enormous difficulties facing immigrant women to leave the bottom of the occupational ladder.

Last, when looking at the results disaggregated by region, the main finding is that the determinants of occupational mobility for immigrants from developed countries are clearly different from those from developing regions. Thus, for the first group the level of education has a significantly greater impact in their occupational transition, which confirms the better portability of studies from advanced countries. Consistent with this, the recognition of studies in Spain has no positive effect for this group, probably because the Spanish employers de facto recognise the qualifications gained in these countries. Women in developed countries do not have different results from those of men, reinforcing the earlier evidence about the origins of differences in the occupational segregation of women. Geographic mobility has a positive effect on the progress in Spain of immigrants from developed countries, while it does not affect those from developing areas, which are probably more limited in their choice of occupations despite a more intensive job search, including change of residence. By contrast, episodes of unemployment in Spain involve a higher occupational penalty for immigrants from advanced countries to the extent that their higher human capital is probably more adversely affected by obsolescence due to unemployment. A counterintuitive result is that age at arrival in Spain and obtaining work

through informal networks appear to have a more negative effect for immigrants from developed countries than from developing ones. Migration for economic reasons penalizes immigrants from developing regions, but not those from developed countries. Last, the results from Western immigrants are not affected by the duration of their stay in Spain. To the extent that human capital is perfectly transferable to the Spanish labor market, the accumulation of specific human capital while living in Spain is unimportant and does not exert a statistically significant effect at usual levels. In the case of immigrants from developing areas, the results are the opposite, as predicted by the hypothesis of assimilation.

5. Conclusions

The aim of this paper is to analyse the occupational mobility of immigrants from their countries of origin to the Spanish labor market and its main determinants. The paper takes as a starting point the few previous studies on this phenomenon for other countries and offers a complementary perspective to the previous analysis carried out for the Spanish case that have only analyzed the occupational progress of immigrants once they are in Spain. The empirical analysis is based on microdata from the *Encuesta Nacional de Inmigrantes*, a survey with extensive information on the employment situation of immigrants in their home countries and in Spain, which permits a comprehensive study of its main determinants. The analysis also relies on the use of an international index of occupational status, which facilitates the comparison of the occupational status of immigrants from different countries and permits to quantify the downgrade and recovery along their occupational trajectories.

The occupational status of immigrants is, in general, substantially worse in the Spanish labor market than in their countries of origin. This is explained by the initial downgrading they experience when they enter the Spanish labor market, but also due to their slow recovery during their stay in Spain. This pattern, characterized by an intense occupational degradation on arrival and a limited further progress, is in line with the assumptions of theoretical models that predict a U-shaped evolution of the occupational status of immigrants. However, it does so only partially, since the initial downgrading is considerably more intense than the subsequent recovery.

There are significant discrepancies when looking at the specific profiles of particular groups. Thus, occupational downgrading associated to the entry to the Spanish labor market is usually more severe for women, for immigrants with higher levels of education and for immigrants from developing regions. The magnitude of the occupational progress once in Spain tends to be, however, rather similar for all immigrants, with only certain differences between

educational levels. Thus, limited occupational progress experienced by immigrants in Spain is a phenomenon that occurs generally.

The intense occupational downgrading observed for immigrants is consistent with previous studies for Spain that have documented the fact that they are segregated in a significant and persistent way into worse occupations than natives. Although the origin of this downgrading is probably related to the productive structure of the Spanish economy, with a strong presence of low-skilled occupations, an additional factor that has to be taken into account is that immigrants tend to concentrate in less-skilled occupations that complement those of natives. In this sense, it is noteworthy that, from an international perspective, Spain is, in fact, one of the developed countries where the occupational status of immigrants is comparatively lower, and also where there are higher differences between immigrant and natives.

The results from the estimated econometric models shed light on the main determinants of the observed phenomena. The obtained evidence shows that occupational downgrading when arriving in Spain is higher for women, for better-educated immigrants and for those from developing countries, a common result to previous studies on the topic. Recovery is more intense for the latter two groups, confirming the hypothesis of a deep U-shaped occupational mobility. Women, however, have more difficulty to improve their occupational status in the Spanish labor market.

Improving the transferability of human capital of origin through the recognition of studies in Spain or even the previous migration to a developed country translates into a higher occupational status in Spain.

The results also confirm that human capital accumulation adapted to the requirements of the Spanish labor market during residence in Spain is translated into an improved occupational status that allows mitigate the downgrading from the origin country. The improvement, however, is slower. The main determinants of recovery are, in addition to the recognition of studies, the learning of Spanish and the possibility of obtaining a work permit.

An additional very interesting result is that access to first job in Spain through informal networks, such as relatives or other personal contacts, has a negative effect on the occupational status of immigrants. It therefore confirms the results of other studies where it is found that social networks only allow to access jobs related to the networks, which usually are the jobs at the bottom of the occupational ladder.

The analysis of information related to certain behaviours of immigrants related to job search and access to employment has allowed us to conclude that those who are less subjected to a liquidity restriction and have been able to devote sufficient time to find a good first job have achieved a higher occupational status. A more intensive job search, including geographic mobility across Spain, has resulted in a higher occupational improvement, while a higher unemployment -

related to a lower search intensity or due to the obsolescence of human capital- has a negative effect on the occupational progress in the Spanish labor market.

Last, the results seem to confirm that the occupational mobility of immigrants in a country with low skills, such as Spain, shows a profile similar to that of other developed countries. Yet, compared with the United States, the only country for which comparable information is available, there are two distinguishing features of interest. On the one hand, the occupational downgrading breakdown when arriving in Spain is very intense, placing immigrants in lower occupational levels than in the United States. On the other hand, although the occupational recovery during the stay in the host country is slow in both cases, given that in Spain the starting point is clearly lower, the global progress is more limited. These elements are plausibly related to the fact that the Spanish labor market is characterized by low quality jobs and an intense polarization of occupations.

References

- Akresh, I.R. (2008): "Occupational Trajectories of Legal US Immigrants: Downgrading and Recovery", *Population and Development Review*, vol. 34, n.3, pp. 435-456.
- Alcobendas, M. A., Rodríguez-Planas, N. (2009): "Immigrants' Assimilation Process in a Segmented Labor Market", IZA DP No. 4394.
- Amuedo, C.; De la Rica, S. (2007): "Labour market assimilation of recent immigrants in Spain", *British Journal of Industrial Relations*, vol. 45(2), pp. 257-284.
- Amuedo, C.; De la Rica, S. (2009): "Complements or substitutes? Task Specialization by Gender and Nativity in Spain", IZA dp 4348.
- Aslund, O.; Rooth, D-O. (2007): "Do when and where matter? Initial Labour Market Conditions and Immigrant Earnings", *The Economic Journal* 117, March, pp. 422-448.
- Barrett, A.; Duffy, D. (2008): "Are Ireland's Immigrants Integrating into Its Labour Market?", *International Migration Review*, vol. 42, n. 3, pp. 597-619
- Barrett, A.; Duffy, D. (2008): "Are Ireland's Immigrants Integrating into Its Labour Market?", *International Migration Review*, vol. 42, n. 3, pp. 597-619
- Bauer, T.; Zimmermann, K. (1999): "Occupational Mobility of Ethnic Immigrants", IZA dp. 58.
- Borjas, G. (1985), "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants", *Journal of Labor Economics*, vol. 3, n. 4, pp. 463-489.
- Borjas, G. (1995): "Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s?", *Journal of Labor Economics*, vol. 13, n. 21, pp. 201-245.
- Borjas G. J. (1999): "The Economic Analysis of Immigration", en Ashenfelter O. y Card D. (eds.) Handbook of Labor Economics, vol. 3A, ed. North-Holland.
- Caparrós, A., Navarro, M. L. (2009): "Trayectorias ocupacionales de los inmigrantes: Desde el país de origen hacia España", VIII Jornadas de Economía Laboral, Zaragoza.
- Chiswick, B.; Lee, Y.; Miller, P. (2005): "A Longitudinal Analysis of Immigrant Occupational Mobility: A Test of the Immigrant Assimilation Hypothesis", *International Migration Review*, vol. 39, n.2, pp. 332-353.
- Constant, A.; Massey, D. (2003): "Self-selection, earnings, and out-migration: A longitudinal study of immigrants to Germany", *Journal of Population Economics*, vol. 16, pp. 631-653.
- Duleep, H.; Regets, M. (1997): "The Decline in Immigrant Entry Earnings: Less Transferable Skills or Lower Ability?", *The Quarterly Review of Economics and Finance*, vol. 37, Special Issue, pp. 189-208.
- Duleep, H.; Regets, M. (1999): "Immigrants and Human Capital Investment", *American Economic Review*, vol. 89, n. 2, pp. 186-191.
- Dustmann, C.; Weiss, Y. (2007): "Return Migration: Theory and Empirical Evidence from UK", *British Journal of Industrial Relations*, vol. 45, n. 2, pp.236-256.
- Eurostat (2008): "The labour market situation and impact of recent third country migrants", *Employment in Europe. 2008*.
- Ganzeboom, H.B.; Treiman, D.J. (1996): "Internationally comparable measures of occupational status for the 1988 International Standard Classification of Occupations", *Social Science Research*, 25, pp. 201–239
- Green D. (1999): "Immigrant Occupational Attainment: Assimilation and Mobility over Time", *Journal of Labor Economics*, vol. 17(11), pp. 49-79.
- Lubotsky, D.(2007): "Chutes or Ladders? A Longitudinal Analysis of Immigrant Earnings", *Journal of Political Economy* vol. 115, n. 5, October, pp. 820-867
- Mahuteau, S.; Junankar, P. (2008): "Do Migrants succeed in the Australian Labour Market? Further Evidence on Job Quality", MPRA Paper 8703.
- OECD (2008a): Education at a Glance, Paris.
- OECD (2008b): International Migration Outlook. Annual Report 2008. Paris.
- Reher, D., Cortés, L., González, F., Requena, M., Sánchez, M.I., Sanz, A., M. Stanek (2008): *Informe Encuesta Nacional de Inmigrantes (ENI-07)*, INE, Documentos de Trabajo 2-08, abril.
- Rooth, D.; Ekberg, J. (2006): "Occupational Mobility for Immigrants in Sweden", *International Migration*, vol. 44, n. 2, pp. 57-97.
- Simón, H.; Sanromá, E.; Ramos, R. (2008): "Labour Segregation and Immigrant and Native-born Wage Distributions in Spain: An Analysis Using Matched Employer-Employee Data", *Spanish Economic Review*, vol. 10(2), pp. 135-168.
- Stanek, M., Veira, A. (2009) "Occupational Transitions and Social Mobility at Migration to Spain", GEPS, Universidad Complutense de Madrid, Documento de Trabajo n. 4, 2009 (III).

Annex

Table A.1 Descriptive statistics.

	Average	Standard
Oppositional atoms of the assurant ish in Casin	30.780	deviation 13.580
Occupational status of the current job in Spain Occupational status of the first job in Spain	27.840	13.410
Occupational status of the last job in the origin country	40.000	15.060
Difference between the occupational status of the current job in Spain and the job in the origin country	-9.215	16.230
Difference between the occupational status of the first job in Spain and the job in the origin country	-12.160	16.400
Difference between the occupational status of the current job in Spain and the first job in Spain	2.944	9.835
Years of residence in Spain	4.142	2.256
Woman	0.467	0.499
Man	0.533	0.499
Married	0.512	0.500
Number of children in the household	1.264	1.255
Age	35.000	8.298
Age at arrival to Spain	30.730	8.144
Origin developed countries Origin developing countries	0.091 0.909	0.287 0.287
Origin Latin America	0.533	0.499
Origin Eastern Europe	0.333	0.442
Origin rest of development countries	0.109	0.312
Primary education	0.184	0.387
Secondary education. First stage	0.160	0.366
Secondary education. Second stage	0.455	0.498
Tertiary education	0.202	0.402
Recognition of studies in Spain	0.052	0.222
Employee in origin country	0.805	0.397
Self-employed in origin country	0.150	0.357
Other situation in origin country	0.046	0.209
Employee in the current job in Spain	0.880	0.325
Self-employed in the current job in Spain	0.087	0.282
Other situation in the current job in Spain	0.033 0.587	0.179 0.492
Employee in the first job in Spain Self-employed in the first job in Spain	0.367	0.492
Other situation in the first job in Spain	0.052	0.222
Networks (First job through personal contacts)	0.451	0.498
Networks (Contacts at arrival)	0.821	0.383
Migration to Spain for work	0.707	0.455
Previous residence in a developed country	0.063	0.243
Job offer previous to migration	0.190	0.392
Between three months and one year to find the first job in Spain	0.151	0.359
More than one year to find the first job in Spain	0.035	0.183
Does not remember the time to find the first job in Spain	0.209	0.407
More than one month as unemployed in Spain	0.663	0.473
More than one work when finding the first job in Spain	0.041	0.197
More than one work in the present	0.067	0.250
Spanish proficiency Legal status in Spain	0.818 0.857	0.386
Andalucía	0.066	0.330
Aragón	0.046	0.209
Asturias (Principado de)	0.019	0.135
Balears (Illes)	0.066	0.248
Canarias	0.037	0.190
Cantabria	0.026	0.160
Castilla y León	0.040	0.196
Castilla-La Mancha	0.053	0.225
Catalunya	0.123	0.328
Comunidad Valenciana	0.093	0.290
Extremadura	0.018	0.133
Galicia	0.019	0.138
Madrid (Comunidad de)	0.146	0.354
Murcia (Región de)	0.087	0.282
Navarra (Comunidad Foral de) País Vasco	0.031 0.045	0.172 0.208
Pais Vasco Rioja (La)	0.045	0.208
Ceuta	0.000	0.015
Number of residences in Spain (different towns)	1.622	0.013
Observations		543

Table A.2.
Occupational classification.
Correspondence and occupational status

	nal classification		onal classification
C	NO-94	13	SCO-88
Occupations	Occupational status ISEI	Occupations	Occupational status ISEI
1	68	1	55
2	51	1	33
3	70	2	70
4	54	3	54
5	45	4	45
6	32		
7	25	5	40
8	43		
9	23	6	23
10	31		
11	34	7	34
12	34		
13	31	8	31
14	32	O	31
15	16		
16	16		
17	16	9	20
18	21		
19	23		
20	47-32-25	5-8-9	40-31-20

Occupational classification CNO-94: 1-Legislators, senior officials and managers with 10 or more employees; 2-Managers with less than 10 employees; 3-Professionals with tertiary studies; 4-Technicians and associate professionals; 5-Clerks; 6-Restaurant services workers; 7-Personal and protective service workers; 8-Salespersons, models and demonstrators; 9-Skilled agricultural and fishery workers; 10-Semi-skilled and skilled building workers; 11-Skilled workers in extraction and machinery mechanics industries; 12-Skilled workers in printing, textile, food processing and wood industries; 13-Plant and machine operators and assemblers (except motor-vehicle drivers); 14-Motor-vehicle drivers; 15-Domestic helpers and cleaners; 16- Helpers and cleaners in establishments; 17-Agricultural and fishery laborers; 18-Construction laborers; 19-Laborers in manufacturing, mining and transport; 20-Others. Occupational classification ISCO-88: 1- Legislators, senior officials and managers; 2-Professionals; 3- Technicians and associate professionals; 4-Clerks; 5- Service workers and shop and market sales workers; 6- Skilled agricultural and fishery workers; 7- Craft and related trade workers; 8-Plant and machine operators and assemblers; 9- Elementary occupations

Table A.3.
Status and occupational trajectories of immigrants in their origin country and in the United States measured using ISEI.

	О	ccupational s	tatus	Occupati between o	ional trajec rigin and f	
	Origin country	First job in the US	Current job in the US	Downgrading	Similar	Recovery
Total	50.5	40.6	42.0	57.1	21.8	21.1
Man	49.9	41.6	43.4	53.4	23.8	22.8
Woman	51.4	39.1	39.9	63.0	18.6	18.4

Source: Akresh (2008).

Tables

Table 1.

Occupational status of immigrants in their origin country and in Spain measured using ISEI.

	Origin	First job		Cı	irrent job in Spain	
	country	in Spain	Total	Ful	l years of residence	in Spain
	country	iii opuiii	Totai	less than 3	between 3 and 6	between 7 and 9
Total immigrants	40.0	27.8	30.8	29.9	30.6	33.1
Man	37.6	29.3	32.2	31.8	31.8	34.5
Woman	42.8	26.1	29.2	27.9	29.2	31.4
Primary studies	30.8	23.5	25.6	24.3	25.8	26.7
Secondary studies. First stage	35.2	24.8	27.2	26.1	27.3	29.5
Secondary studies. Second stage	39.0	26.6	29.7	27.5	30.0	31.9
Tertiary studies	54.6	37.1	40.8	42.4	39.0	45.3
Recognition of studies in Spain	51.6	39.8	45.7	47.5	44.2	48.2
Migration to Spain to work	37.6	25.0	28.0	26.5	28.2	29.7
Migration to Spain for other reasons	45.9	34.7	37.5	37.8	36.8	39.7
Less than 3 months to find the first job in Spain	39.6	26.2	29.5	27.9	29.5	31.9
Between 3 months and 1 year to find the first job in Spain	38.9	27.0	29.9	28.7	29.5	34.1
More than 1 year to find the first job in Spain	40.7	30.1	32.4	28.8	32.0	37.3
Networks (first job through personal contacts)	37.5	24.9	27.9	26.8	28.0	29.8
Networks (contacts at arrival in Spain)	40.0	27.6	30.5	29.5	30.5	32.8
Networks (no contacts at arrival in Spain)	40.2	28.9	32.0	32.8	31.3	33.7
Has not changed residence while in Spain	40.5	28.5	30.7	30.0	30.5	34.0
Has changed 1 time of residence	40.1	27.5	30.9	29.6	31.0	32.1
Has changed more than 1 time of residence	37.8	25.8	30.7	29.6	31.0	32.1
Origin: developed countries	46.5	44.5	45.8	42.5	48.4	47.0
Origin: developing countries	39.4	26.2	29.3	27.9	29.4	31.1
Origin: Latin America	41.0	27.6	30.6	29.6	30.7	31.7
Origin: Eastern Europe	38.0	24.0	27.1	25.5	27.4	31.0
Origin: Rest of developing regions	34.6	24.8	28.0	26.8	27.7	29.4
Previous residence in a developed country	38.9	36.5	38.5	38.6	37.8	40.2

Table 2. Occupational distribution of immigrants.

Type of]	Relative share	2 (%)
occupation	Skilled 2 ccupations (1-4) 3 4 5 6 7 8 emi-skilled 9 ccupations (5-14) 11 12 13 14 15	Origin country	Spain. First job	Spain. Current job
01-111-4	1	2.1	0.6	1.0
	2	3.5	0.9	1.6
	3	10.2	3.9	4.0
(1 1)	4	9.8	3.2	4.4
	5	8.8	2.7	4.4
	6	6.6	10.9	10.7
	7	3.9	7.9	4.8
0 : 1:11 1	8	10.7	2.8	3.9
	9	1.8	2.2	1.2
•	10	7.9	10.8	15.1
(3-14)	11	4.8	2.3	3.6
	12	6.1	2.4	3.0
	13	4.2	1.9	3.3
	14	4.5	1.0	2.5
	15	1.8	16.9	12.7
Unskilled	16	1.2	4.7	5.7
occupations	17	3.3	12.9	4.9
(15-19)	18	2.2	7.2	6.8
	19	2.6	2.9	3.8
-	20	4.0	1.9	2.6
	Total	100	100	100

Note: Occupational desagregation using CNO-94: see table A.2.

Table 3. Distribution and occupational status of immigrants. 2006.

					Relative	e share (º	%)				Occupatio	and status
	1	2	3	4	5	6	7	8	9		Оссирано	mai status
Occupational groups	O	Skilled ecupatio (1-3)	ons	Semi-skilled occupations (4-8)					Unskilled (9)	Total	Immigrants	Total Employed Population
Austria	5.5	9.6	13.1	6.1	16.1	1.0	15.2	9.3	24.2	100	39.1	43.5
Belgium	14.6	18.5	8.8	11.1	13.3	1.2	11.0	7.0	14.4	100	45.1	47.1
Denmark	6.8	15.7	17.0	5.5	19.4	_	8.0	8.1	18.4	100	43.1	45.2
Finland	9.7	19.2	12.5	5.2	17.2	_	11.7	8.0	14.0	100	44.0	45.4
France	9.3	13.0	12.5	8.2	12.6	2.0	15.0	9.0	18.5	100	41.7	44.2
Germany	5.3	10.7	14.8	7.3	13.8	0.8	18.5	12.4	16.5	100	40.8	44.4
Greece	3.3	4.2	2.2	3.0	14.4	3.2	33.8	6.4	29.6	100	33.2	-
Ireland	10.5	18.6	6.1	9.3	19.3	_	14.6	7.4	13.4	100	43.9	45.3
Italy	5.1	4.7	9.4	5.1	12.6	1.6	23.9	12.5	25.1	100	35.9	-
Luxembourg	8.0	22.8	13.7	10.1	8.6	_	11.9	7.1	17.1	100	45.4	46.7
Netherlands	7.7	16.1	15.7	11.6	13.8	1.2	9.7	7.7	16.6	100	44.0	47.5
Portugal	7.1	14.1	10.3	10.0	16.2	1.4	16.5	6.3	18.2	100	41.8	40.0
Sweden	3.7	17.1	14.2	7.3	23.2	1.1	8.7	13.2	11.6	100	43.9	46.1
Norway	3.7	14.6	19.1	5.6	26.8	0.7	10.0	7.3	12.2	100	44.1	45.6
Switzerland	6.0	17.4	15.4	8.7	16.3	1.4	17.7	7.5	9.5	100	44.8	46.8
United Kingdom	15.0	18.5	13.6	10.3	17.4	0.4	5.4	6.8	12.6	100	46.7	45.8
United States	9.0	6.9	1.3	4.4	11.6	12.0	24.9	10.0	19.9	100	35.4	47.4
Spain	4.7	6.5	5.8	4.4	19.0	1.9	18.5	6.6	32.7	100	35.2	41.6
Pro memoria Spain-ENI 2007												
Total immigrants	5.6	3.9	5.4	4.5	19.0	1.2	20.6	6.9	33.0	100	34.6	
Recent immigrants	2.6	4.0	4.4	4.4	19.7	1.2	21.8	6.7	35.3	100	33.3	-

Source: OECD (2008): International Migration Outlook 2008 and OECD (2008): Education at a Glance 2008. Note: Occupational desagregation using ISCO-88: see table A.2.

Table 4. Determinants of the difference between the occupational status of the current job and the last job in the origin country and determinants of the occupational status of the current job in Spain.

	Difference l	oetween the o	occupational st	atus of the	Occupational status of			
	curre	ent job and th	ie last job in oi	rigin	the curr	ent job		
	(1	<u> </u>	(II	[)	(II	(I)		
	Coeff.	Standard	Coeff.	Standard	Coeff.	Standard		
	Coeii.	error	Coeff.	error		error		
Years of residence in Spain	0.270**	(0.119)	0.297***	(0.086)	0.302***	(0.088)		
Women	-7.011***	(0.473)	-4.557***	(0.344)	-4.085***	(0.347)		
Age	-0.407*	(0.215)	-0.123	(0.155)	-0.068	(0.158)		
Age squared	0.002	(0.003)	0.000	(0.002)	-0.000	(0.002)		
Origin: Latin America	-9.764***	(0.895)	-10.563***	(0.647)	-10.717***	(0.658)		
Origin: Eastern Europe	-9.228***	(0.958)	-12.086***	(0.694)	-12.637***	(0.704)		
Origin: Rest of developing countries	-9.460***	(1.092)	-11.860***	(0.790)	-12.322***	(0.802)		
Secondary studies - first stage	-2.916***	(0.781)	0.583	(0.567)	1.258**	(0.574)		
Secondary studies - second stage	-4.089***	(0.640)	2.070***	(0.473)	3.257***	(0.470)		
Tertiary studies	-9.397***	(0.780)	7.858***	(0.625)	11.184***	(0.573)		
Occupational status in origin	-		-0.838***	(0.013)	-			
Recognition of studies in Spain	4.513***	(1.039)	8.393***	(0.753)	9.141***	(0.763)		
Migration to Spain to work	-1.240**	(0.538)	-3.698***	(0.390)	-4.171***	(0.395)		
More than 1 month unemployed in Spain	-0.304	(0.485)	-0.887**	(0.351)	-1.000***	(0.356)		
Spanish proficiency	1.442**	(0.678)	1.086**	(0.490)	1.018**	(0.498)		
Legal status	1.808**	(0.731)	1.831***	(0.528)	1.836***	(0.537)		
Number of residences in Spain (different town	s) 0.472**	(0.232)	0.168	(0.168)	0.109	(0.171)		
Intercept	14.123***	(4.119)	38.164***	(3.001)	42.797***	(3.027)		
R squared	0.156	•	0.559		0.350			
Adjusted R squared	0.149		0.555		0.344			
Number of observations	4,543		4,543		4,543			

* p < 0.10, ** p < 0.05, *** p < 0.01Notes: All models estimated by OLS. The immigrant of reference is a man, not married, from a developed country and with primary studies. Additional controls are included in all models: marital status, number of children, having more than one job in the origin country and in the current job in Spain, self-employed or not in the origin country and in the current job in Spain and regional dummies.

Table 5

Determinants of the difference between the occupational status of the first job in Spain and the origin country and of the last job in the origin country.

	Difference b	etween the o	occupational st	atus of the	Occupational status		
	first job	in Spain and	I the last job in	origin	the first jo	b in Spain	
	(I)	(I)		(II)	I) -	
	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	
Women	-7.227***	(0.466)	-4.768***	(0.336)	-4.312***	(0.339)	
Age at arrival in Spain	-0.381**	(0.194)	-0.036	(0.139)	0.029	(0.141)	
Age at arrival in Spain squared	0.003	(0.003)	-0.000	(0.002)	-0.001	(0.002)	
Origin Latin America	-8.539***	(0.873)	-9.719***	(0.626)	-9.937***	(0.635)	
Origin Eastern Europe	-9.394***	(0.935)	-12.544***	(0.672)	-13.128***	(0.681)	
Origin Rest of developing regions	-10.060***	(1.072)	-12.740***	(0.769)	-13.236***	(0.781)	
Secondary education - first stage	-3.125***	(0.772)	0.579	(0.556)	1.265**	(0.562)	
Secondary education - second stage	-4.440***	(0.628)	1.991***	(0.461)	3.183***	(0.457)	
Tertiary education	-10.692***	(0.756)	7.104***	(0.606)	10.402***	(0.550)	
Occupational status in the origin country	-		-0.844***	(0.013)	-		
Networks (first job through personal contacts)	-0.557	(0.475)	-2.167***	(0.342)	-2.466***	(0.346)	
Networks (contacts at arrival)	0.031	(0.608)	-0.077	(0.436)	-0.097	(0.443)	
Migration to Spain to work	-1.506***	(0.534)	-4.275***	(0.385)	-4.788***	(0.389)	
Residence in developed country before emigrating to Spain	7.229***	(0.943)	3.488***	(0.679)	2.795***	(0.687)	
Between 3 months and 1 year to find the first job in Spain	1.405**	(0.641)	1.200***	(0.459)	1.162**	(0.467)	
More than 1 year to find the first job in Spain	3.172**	(1.235)	2.753***	(0.885)	2.675***	(0.899)	
Intercept	12.811***	(3.398)	36.838***	(2.463)	41.290***	(2.474)	
R squared	0.178		0.578		0.347	,	
Adjusted R squared	0.174		0.576		0.344		
Number of observations	4,543		4,543		4,543		

p < 0.10, p < 0.05, p < 0.01

Notes: All models estimated by OLS. The immigrant of reference is a man, not married, from a developed country and with primary studies and who found a job in less than 3 months after arrival in Spain. Additional controls are included in all models: having more than one job in the origin country and in the first job in Spain, self-employed or not in the origin country and in the first job offer before migration and a dummy for those who did not remember the time before finding a job in Spain.

Table 6. Determinants of the difference between the occupational status of the current job and the first job in Spain.

	Difference	between the o	occupational s	tatus of the
	curre	ent job and th	e first job in S	Spain
	(T)	(I	I)
	Coeff.	Standard	Coeff.	Standard
		error		error
Years of residence in Spain	0.659***	(0.114)	0.558***	(0.097)
Woman	0.275	(0.452)	-1.539***	(0.386)
Age	-0.122	(0.213)	-0.093	(0.180)
Age squared	0.000	(0.003)	-0.000	(0.002)
Origin Latin America	1.324	(0.959)	-5.680***	(0.839)
Origin Eastern Europe	2.243**	(1.036)	-6.662***	(0.915)
Origin rest of developing regions	1.498	(1.131)	-7.084***	(0.991)
Secondary studies - first stage	0.627	(0.745)	1.068*	(0.632)
Secondary studies - first stage	1.069*	(0.603)	2.088***	(0.516)
Tertiary studies	3.243***	(0.734)	6.692***	(0.648)
Occupational status of the first job in Spain	-		-0.557***	(0.021)
Downgrading between origin and the first job in Spain	-		1.322**	(0.523)
Recovery between origin and the first job in Spain	-		-2.335***	(0.689)
Migration to Spain to work	0.161	(0.516)	-2.511***	(0.444)
More than 1 month unemployed in Spain	-0.313	(0.479)	-0.225	(0.406)
Number of residences in Spain (different towns)	0.468**	(0.201)	0.205	(0.170)
Intercept	2.778	(4.187)	26.696***	(3.629)
R squared	0.039		0.314	
Adjusted R squared	0.027		0.305	
Number of observations	3,032		3,032	

* p < 0.10, ** p < 0.05, *** p < 0.01Notes: All models estimated by OLS. The immigrant of reference is a man, from a developed country and with primary studies and who has not changed the job in Spain. Additional controls are included in all models: marital status, number of children, having more than one job in the first and in the current job in Spain, self-employed or not in the first and in the current job in Spain and regional dummies.

Table 7.

Determinants of the difference between the occupational status of the current job in Spain and the last job in the country of origin.

Disaggregated results by gender and region of origin.

	•	Ge	nder				Region of origin							
	1	Ian	Wo	man	Develope	ed countries			_	Develop	ing countrie	S		
	1V	1411	wo	111211	Develope	ed Countines	T	otal	Latin America		Eastern Europe		I	Rest
	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error
Years of residence in Spain	0.217**	(0.104)	0.317**	(0.140)	0.232	(0.261)	0.265***	(0.090)	0.125	(0.125)	0.594***	(0.167)	0.272	(0.217)
Woman	-		-		1.408	(1.325)	-4.857***	(0.350)	-4.826***	(0.467)	-4.293***	(0.600)	-3.243***	(1.207)
Age	0.154	(0.188)	-0.362	(0.252)	-0.534	(0.595)	-0.007	(0.158)	-0.171	(0.216)	0.287	(0.260)	0.239	(0.531)
Age squared	-0.002	(0.002)	0.002	(0.003)	0.009	(0.008)	-0.001	(0.002)	0.001	(0.003)	-0.006*	(0.003)	-0.004	(0.007)
Origin Latin America	-7.753***	(0.763)	-13.382***	(1.099)	-		1.796***	(0.598)	-		-		-	
Origin Eastern Europe	-8.691***	(0.844)	-15.361***	(1.149)	-		0.098	(0.608)	-		-		-	
Origin rest of developing regions	-9.295***	(0.872)	-13.869***	(1.683)	-		-		-		-		-	
Secondary studies - first stage	0.801	(0.655)	-0.010	(0.975)	1.762	(2.307)	0.454	(0.572)	-0.476	(0.828)	1.263	(1.038)	0.233	(1.337)
Secondary studies - second stage	1.873***	(0.543)	2.077**	(0.818)	5.655***	(2.115)	1.713***	(0.474)	1.153*	(0.647)	1.393	(0.957)	3.871***	(1.042)
Tertiary studies	7.139***	(0.768)	8.250***	(1.013)	16.207***	(2.357)	6.523***	(0.640)	6.342***	(0.869)	5.923***	(1.218)	6.397***	(1.650)
Occupational status in origin	-0.814***	(0.017)	-0.865***	(0.020)	-0.659***	(0.046)	-0.866***	(0.013)	-0.834***	(0.018)	-0.895***	(0.024)	-0.973***	(0.035)
Recognition of studies in Spain	7.095***	(0.952)	9.567***	(1.163)	1.870	(2.138)	9.552***	(0.793)	9.582***	(1.012)	10.165***	(1.511)	6.773**	(2.619)
Migration to Spain to work	-3.133***	(0.507)	-4.240***	(0.591)	-2.376	(1.469)	-3.761***	(0.397)	-4.153***	(0.528)	-2.230***	(0.696)	-4.377***	(1.232)
More than 1 month unemployed in Spain	-1.395***	(0.420)	-0.659	(0.576)	-2.836**	(1.279)	-0.763**	(0.357)	-0.662	(0.483)	-0.934	(0.610)	-0.691	(1.036)
Spanish proficiency	0.720	(0.562)	1.275	(0.856)	1.993	(1.488)	0.720	(0.517)	0.831	(1.846)	0.790	(0.613)	0.599	(0.928)
Legal status in Spain	1.903***	(0.656)	1.970**	(0.837)	-21.637*	(12.299)	2.155***	(0.519)	3.812***	(0.789)	0.602	(0.752)	1.535	(1.635)
Number of residences in Spain (diff towns)	0.081	(0.188)	0.340	(0.304)	1.525**	(0.659)	0.094	(0.170)	0.032	(0.251)	0.146	(0.281)	0.335	(0.367)
Intercept	30.781***	(3.637)	41.406***	(4.869)	42.215**	(16.339)	26.433***	(3.059)	29.432***	(4.470)	18.457***	(5.011)	31.340***	(9.570)
R squared	0.541		0.547		0.434		0.582		0.536		0.661		0.693	
Adjusted R squared	0.533		0.539		0.378		0.578		0.529		0.650		0.669	
Number of observations	2,423		2,120		412		4,131		2,423		1,213		495	

^{*} *p* < 0.10, ** *p* < 0.05, *** *p* < 0.01

Notes: All models estimated by OLS. The immigrant of reference is, depending on the model, a man, not married, from a developed country and with primary studies. Additional controls are included in all models: marital status, number of children, having more than one job in the origin country and in the current job in Spain and regional dummies.

Table 8.

Determinants of the difference in the occupational status between the first job in Spain and the last job in the country of origin.

Disaggregated results by gender and region of origin.

		Ger	nder				Region of origin							
	Ma	an	Wor	nan	Developed	d countries				Developing	countries			
	111		WOL	11411	Developed	a countries	To	Total		America	Eastern Europe		Rest	
	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error
Women	-		-		-0.802	(1.364)	-4.858***	(0.340)	-5.262***	(0.452)	-4.126***	(0.582)	0.049	(1.193)
Age at arrival in Spain	-0.174	(0.176)	0.022	(0.216)	-1.217**	(0.572)	0.100	(0.140)	-0.005	(0.188)	0.183	(0.237)	-0.027	(0.474)
Age at arrival in Spain squared	0.003	(0.003)	-0.002	(0.003)	0.018**	(0.008)	-0.002	(0.002)	-0.000	(0.003)	-0.004	(0.003)	0.001	(0.008)
Origin Latin America	-7.859***	(0.757)	-11.728***	(1.040)	-		3.305***	(0.541)	-		-		-	
Origin Eastern Europe	-10.359***	(0.837)	-14.539***	(1.096)	-		0.379	(0.580)	-		-		-	
Origin Rest of developing countries	-10.976***	(0.874)	-12.334***	(1.610)	-		-		-		-		-	
Secondary studies - first stage	0.793	(0.667)	0.165	(0.931)	-0.312	(2.340)	0.704	(0.557)	0.373	(0.796)	0.174	(1.014)	1.685	(1.295)
Secondary studies - second stage	2.387***	(0.549)	1.311*	(0.777)	5.757***	(2.078)	1.578***	(0.460)	1.081*	(0.620)	0.913	(0.936)	3.858***	(1.007)
Tertiary studies	7.673***	(0.771)	6.492***	(0.959)	14.804***	(2.332)	5.771***	(0.618)	6.109***	(0.828)	4.031***	(1.185)	5.107***	(1.542)
Occupational status in the last job in origin	-0.798***	(0.017)	-0.886***	(0.019)	-0.633***	(0.049)	-0.869***	(0.013)	-0.833***	(0.018)	-0.927***	(0.024)	-0.940***	(0.034)
Networks (first job through personal contacts)	-1.752***	(0.434)	-2.641***	(0.529)	-4.098**	(1.883)	-1.952***	(0.337)	-2.288***	(0.462)	-1.037*	(0.571)	-2.365***	(0.898)
Networks (contacts at arrival)	0.052	(0.526)	-0.248	(0.724)	-0.113	(1.474)	0.021	(0.449)	-0.027	(0.668)	-0.977	(0.735)	1.147	(0.966)
Migration to Spain to work	-3.597***	(0.520)	-4.680***	(0.567)	-1.374	(1.551)	-4.553***	(0.389)	-5.017***	(0.513)	-3.059***	(0.687)	-3.192***	(1.194)
Residence in developed country	2.488***	(0.769)	5.014***	(1.240)	1.560	(1.501)	4.381***	(0.776)	4.520***	(1.236)	4.076***	(1.284)	3.625***	(1.401)
Between 3 months and 1 year to find first job	1.051*	(0.585)	1.072	(0.713)	-2.616	(2.299)	1.305***	(0.454)	1.287*	(0.667)	1.406*	(0.717)	0.088	(1.079)
More than 1 year to find the first job in Spain	2.679**	(1.340)	3.043**	(1.196)	0.224	(4.069)	2.955***	(0.879)	3.312***	(1.262)	2.883**	(1.418)	-0.430	(2.116)
Intercept	34.757***	(3.058)	35.715***	(3.908)	37.385***	(10.039)	23.325***	(2.476)	27.029***	(3.294)	25.695***	(4.292)	24.765***	(7.564)
R squared	0.532		0.579		0.381		0.598		0.554		0.679		0.674	
Adjusted R squared	0.527		0.575		0.350		0.596		0.550		0.673		0.661	
Number of observations	2,423		2,120		412		4,131		2,423		1,213		495	

^{*} p < 0.10, ** p < 0.05, *** p < 0.01

Notes: All models estimated by OLS. The immigrant of reference, depending on the model is a man, not married, from a developed country and with primary studies and who find a job in less than 3 months after arrival in Spain. Additional controls are included in all models: having more than one job in the origin country and in the first job in Spain, self-employed or not in the origin country and in the first job in Spain, job offer before migration and a dummy for those who did not remember the time before finding a job in Spain.

Table 9.

Determinants of the difference between the occupational status of the current job and the first job in Spain.

Disaggregated results by gender and region of origin.

		Ge	nder				Region of origin							
	M	[an	Wor	man	Developed	d countries				Developing	g countries			
	141	ian	WOI	11411	Developed	i countines	Tot	tal	Latin A	merica	Eastern	Europe	Rest	
	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error	Coeff.	Standard error
Years of residence in Spain	0.455***	(0.112)	0.611***	(0.164)	0.444	(0.324)	0.551***	(0.101)	0.577***	(0.140)	0.576***	(0.186)	0.360	(0.238)
Woman	-		-		5.555***	(1.710)	-2.037***	(0.398)	-1.813***	(0.538)	-1.595**	(0.702)	-2.091*	(1.235)
Age	0.459**	(0.211)	-0.573*	(0.304)	-1.046	(0.975)	-0.028	(0.183)	-0.223	(0.251)	0.273	(0.305)	1.064*	(0.628)
Age squared	-0.007**	(0.003)	0.005	(0.004)	0.016	(0.013)	-0.001	(0.002)	0.001	(0.003)	-0.005	(0.004)	-0.017*	(0.009)
Origin Latin America	-2.835***	(0.948)	-8.671***	(1.473)	-		1.649***	(0.619)	-		-		-	
Origin Eastern Europe	-3.938***	(1.053)	-9.766***	(1.582)	-		0.572	(0.672)	-		-		-	
Origin rest of developing regions	-4.489***	(1.072)	-11.013***	(2.046)	-		-		-		-		-	
Secondary studies - first stage	1.606**	(0.696)	0.301	(1.139)	7.685**	(3.200)	0.713	(0.646)	-0.166	(0.934)	2.347*	(1.212)	0.921	(1.406)
Secondary studies - first stage	1.597***	(0.570)	2.670***	(0.926)	8.517***	(2.873)	1.840***	(0.525)	1.659**	(0.718)	2.235**	(1.092)	2.227**	(1.081)
Tertiary studies	5.200***	(0.783)	7.954***	(1.070)	15.187***	(3.220)	6.281***	(0.665)	6.695***	(0.911)	6.674***	(1.317)	3.759**	(1.599)
Occupational status of the first job in Spain	-0.567***	(0.026)	-0.555***	(0.033)	-0.467***	(0.066)	-0.596***	(0.022)	-0.582***	(0.029)	-0.615***	(0.046)	-0.747***	(0.066)
Downgrading between origin and the first job in Spain	1.276**	(0.572)	1.201	(0.957)	0.213	(2.059)	1.285**	(0.541)	0.702	(0.752)	2.337**	(0.995)	0.954	(1.198)
Recovery between origin and the first job in Spain	-1.781**	(0.725)	-3.087**	(1.340)	-4.650**	(2.186)	-1.913***	(0.733)	-2.163**	(1.004)	-2.467*	(1.387)	-0.163	(1.685)
Migration to Spain to work	-2.199***	(0.548)	-2.865***	(0.706)	-2.190	(1.944)	-2.676***	(0.458)	-2.835***	(0.604)	-1.613*	(0.826)	-3.791***	(1.403)
More than 1 month unemployed in Spain	-0.672	(0.466)	-0.049	(0.696)	1.028	(1.632)	-0.445	(0.419)	-0.450	(0.558)	-0.759	(0.763)	0.697	(1.198)
Number of residences in Spain (different towns)	0.238	(0.182)	0.211	(0.320)	1.643**	(0.681)	0.102	(0.176)	-0.101	(0.263)	0.304	(0.295)	0.573	(0.351)
Intercept	17.061***	(4.364)	35.441***	(5.977)	18.422	(19.192)	20.562***	(3.617)	27.119***	(4.933)	8.781	(6.062)	12.785	(11.000)
R squared	0.356		0.320		0.521		0.319		0.309		0.373		0.448	
Adjusted R squared	0.340		0.300		0.398		0.309		0.294		0.342		0.383	
Number of observations	1,634		1,398		182		285		1,707		792		351	

^{*} *p* < 0.10, ** *p* < 0.05, *** *p* < 0.01

Notes: All models estimated by OLS. The immigrant of reference, depending on the model, is a man, from a developed country and with primary studies and who has not changed the job in Spain. Additional controls are included in all models: marital status, number of children, having more than one job in the first and in the current job in Spain, self-employed or not in the first and in the current job in Spain and regional dummies.

Figures

Figure 1. Occupational status of immigrants in their origin country and in Spain.

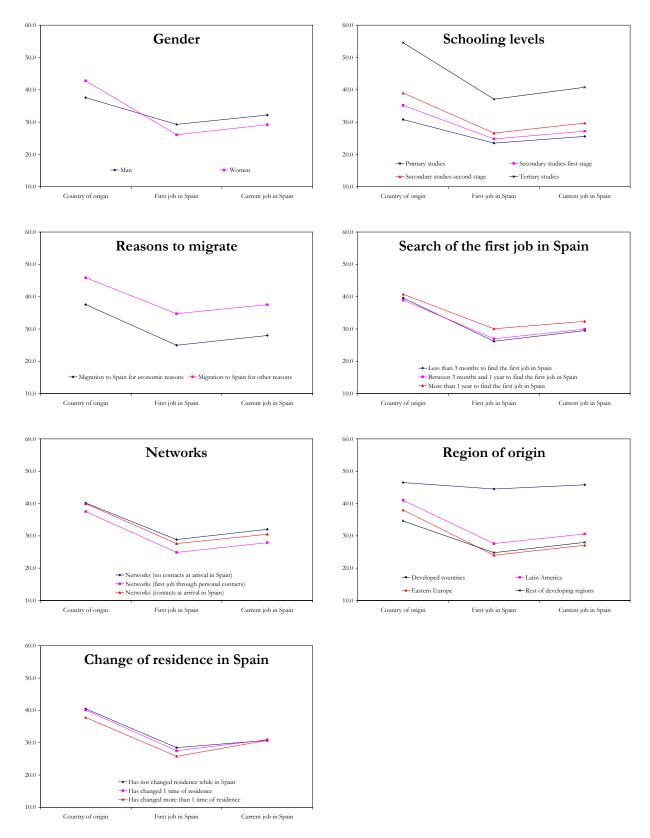


Figure 2.

Difference in the occupational status between the last job in the country of origin and the first job in Spain.

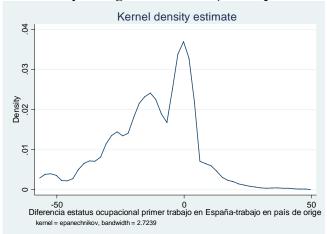


Figure 3.

Difference in the occupational status between the last job in the country of origin and the current job in Spain

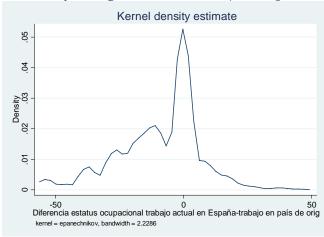
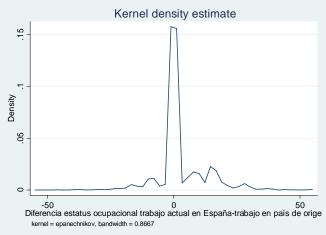


Figure 4.
Difference in the occupational status between the current job and the first job in Spain



2009

2009/1. Rork, J.C.; Wagner, G.A.: "Reciprocity and competition: is there a connection?"

2009/2. Mork, E.; Sjögren, A.; Svaleryd, H.: "Cheaper child care, more children"

2009/3. Rodden, J.: "Federalism and inter-regional redistribution"

2009/4. Ruggeri, G.C.: "Regional fiscal flows: measurement tools"

2009/5. Wrede, M.: "Agglomeration, tax competition, and fiscal equalization"

2009/6. Jametti, M.; von Ungern-Sternberg, T.: "Risk selection in natural disaster insurance"
2009/7. Solé-Ollé, A; Sorribas-Navarro, P.: "The dynamic adjustment of local government budgets: does Spain behave differently?"

2009/8. Sanromá, E.; Ramos, R.; Simón, H.: "Immigration wages in the Spanish Labour Market: Does the origin of human capital matter?"

2009/9. Mohnen, P.; Lokshin, B.: "What does it take for and R&D incentive policy to be effective?"

2009/10. Solé-Ollé, A.; Salinas, P..: "Evaluating the effects of decentralization on educational outcomes in Spain"

2009/11. Libman, A.; Feld, L.P.: "Strategic Tax Collection and Fiscal Decentralization: The case of Russia"

2009/12. Falck, O.; Fritsch, M.; Heblich, S.: "Bohemians, human capital, and regional economic growth"

2009/13. Barrio-Castro, T.; García-Quevedo, J.: "The determinants of university patenting: do incentives matter?"

2009/14. Schmidheiny, K.; Brülhart, M.: "On the equivalence of location choice models: conditional logit, nested logit and poisson"

2009/15. Itaya, J., Okamuraz, M., Yamaguchix, C.: "Partial tax coordination in a repeated game setting"

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2009/17. Geys, B., Revelli, F.: "Decentralization, competition and the local tax mix: evidence from Flanders"

2009/18. Konrad, K., Kovenock, D.: "Competition for fdi with vintage investment and agglomeration advantages"

2009/19. Loretz, S., Moorey, P.: "Corporate tax competition between firms"

2009/20. Akai, N., Sato, M.: "Soft budgets and local borrowing regulation in a dynamic decentralized leadership model with saving and free mobility"

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2009/22. Jarkko, H.: "Voluntary pension savings: the effects of the finnish tax reform on savers' behaviour"

2009/23. Fehr, H.; Kindermann, F.: "Pension funding and individual accounts in economies with life-cyclers and

2009/24. Esteller-Moré, A.; Rizzo, L.: "(Uncontrolled) Aggregate shocks or vertical tax interdependence? Evidence from gasoline and cigarettes"

2009/25. Goodspeed, T.; Haughwout, A.: "On the optimal design of disaster insurance in a federation"

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2009/29, Porcelli, F.: "Effects of fiscal decentralisation and electoral accountability on government efficiency evidence from the Italian health care sector"

2009/30, Troumpounis, O.: "Suggesting an alternative electoral proportional system. Blank votes count"

2009/31, Mejer, M., Pottelsberghe de la Potterie, B.: "Economic incongruities in the European patent system"

2009/32, Solé-Ollé, A.: "Inter-regional redistribution through infrastructure investment: tactical or programmatic?"

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2009/34, Parcero, O.J.: "Optimal country's policy towards multinationals when local regions can choose between firm-specific and non-firm-specific policies"

2009/35, Cordero, J.M.; Pedraja, F.; Salinas, J.: "Efficiency measurement in the Spanish cadastral units through

2009/36, Fiva, J.; Natvik, G.J.: "Do re-election probabilities influence public investment?"

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2009/38, Viladecans-Marsal, E; Arauzo-Carod, J.M.: "Can a knowledge-based cluster be created? The case of the Barcelona 22@district"

2010

2010/1, De Borger, B., Pauwels, W.: "A Nash bargaining solution to models of tax and investment competition: tolls and investment in serial transport corridors"

2010/2, Chirinko, R.; Wilson, D.: "Can Lower Tax Rates Be Bought? Business Rent-Seeking And Tax Competition Among U.S. States"

2010/3, Esteller-Moré, A.; Rizzo, L.: "Politics or mobility? Evidence from us excise taxation"

2010/4, Roehrs, S.; Stadelmann, D.: "Mobility and local income redistribution"

2010/5, Fernández Llera, R.; García Valiñas, M.A.: "Efficiency and elusion: both sides of public enterprises in Spain"

2010/6, González Alegre, J.: "Fiscal decentralization and intergovernmental grants: the European regional policy and Spanish autonomous regions"

2010/7, Jametti, M.; Joanis, M.: "Determinants of fiscal decentralization: political economy aspects"

2010/8, Esteller-Moré, A.; Galmarini, U.; Rizzo, L.: "Should tax bases overlap in a federation with lobbying?"

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2010/10, Di Paolo, A.; Raymond, J.L.; Calero, J.: "Exploring educational mobility in Europe"

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2010/15, Jofre-Monseny, J.: "Is agglomeration taxable?"

2010/16, Dragu, T.; Rodden, J.: "Representation and regional redistribution in federations"

2010/17, Borck, R; Wimbersky, M.: "Political economics of higher education finance"

2010/18, Dohse, D; Walter, S.G.: "The role of entrepreneurship education and regional context in forming entrepreneurial intentions"

2010/19, Åslund, O.; Edin, P-A.; Fredriksson, P.; Grönqvist, H.: "Peers, neighborhoods and immigrant student achievement - Evidence from a placement policy"

2010/20, Pelegrín, A.; Bolance, C.: "International industry migration and firm characteristics: some evidence from the analysis of firm data"

2010/21, Koh, H.; Riedel, N.: "Do governments tax agglomeration rents?"

2010/22, Curto-Grau, M.; Herranz-Loncán, A.; Solé-Ollé, A.: "The political economy of infraestructure construction: The Spanish "Parliamentary Roads" (1880-1914)"

2010/23, Bosch, N.; Espasa, M.; Mora, T.: "Citizens' control and the efficiency of local public services"

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2010/46, Larcinese, V.; Rizzo; L.; Testa, C.: "Why do small states receive more federal money? Us senate representation and the allocation of federal budget"

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2010/55, Bogliacino, F; Vivarelli, M.: "The job creation effect or R&D expenditures"

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2011

2011/1, Oppedisano, V; Turati, G.: "What are the causes of educational inequalities and of their evolution over time in Europe? Evidence from PISA"

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