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The Economic Activity of Immigrants in Spain: Between Complementarity and Exclusion

By

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Introduction

The recent increase of foreign population in Spain is having a major impact on Spanish society, and the increasing trend has not and is not stopped yet and will not stop in the near future. For instance, of the more than 100.000 immigrants registered in the Spanish census of 2001, some 40% declared having entered the country during the last 6 years. Such an immigration dynamics is partly the consequence of a growing demand of labor due to the aging of the Spanish labor force, an increase in education attainment of younger generations and the higher economic participation of women. These three factors, which fall within the “demography of labor supply” framework (Massey et al. 1998), lead to a demand for foreign labor with a replacement (complementary or substitution) component. For example, women outside the home are penalized by the difficulty they have in conciliating their family and working life, and they often have to rely on immigrant workers for the caring of their children and elderly parents, because of the unwillingness of native women to do it and the quasi absence of a Spanish welfare state (there are very few family allowances).

In the context of a marginal welfare state and labor market functioning in Spain, individuals, families and firms get from the immigrants a complementary or substitution labor supply permitting to obtain and accelerate the benefits arising from the present social and demographic changes related to labor force characteristics and evolution. At the same time, and in contrast with this complementary and substitution role played by the immigrants, their situation of social exclusion is pronounced, and the risk of exclusion seems to increase in parallel to the size of their population.

The comparative analysis of economic activity of immigrants (according to their place of birth and other specific-immigrants characteristics...) is a first step towards the understanding of the immigrants’ integration and exclusion processes in Spain. The availability of the 2001 national Census constitutes an opportunity to work in this direction in some details at a representative national level. In particular, the availability of a 5% micro-data sample permits to deepen the analysis beyond what labor survey offer (Garrido and Toharia 2004), while retaining the flexibility the individual data allows. The main variables examined are the relation to activity (from which activity and unemployment rates are calculated), industry of the firm (activity sector), occupations and professional situations.

The paper is divided in 5 parts. After this introduction, we discuss our theoretical approach that is based on the complementary role of immigrant populations for the labor mobility of natives. The third part discusses some aspects of basic definitions, source of data and methods. The general situation of labor incorporation of immigrants in Spain is presented in the fourth part, where the characteristics of labor market of employed immigrants is examined according to the industrial sector, the occupational group and the work situation as an outcome of labor force participation. The last part concludes on further research and needs in data collection.

Theoretical framework

Since the end of the 1960s a radical transformation has happened in relation with the social construction of ages and gender relations. The magnitude of the consequences attributable to these transformations in the field of population change had made some authors to refer to it as the Second Demographic Transition (Van de Kaa 1987, Lesthaeghe 1991). The leveling process of sexes can be considered as a determinant factor in most demographic changes related to fertility, marriage and divorce, radically modifying the family formation models as well as their structure and morphology. On the other hand, and equally important, we also have to consider the role of redefinition of ages, which has emerged fundamentally from the spectacular increase of life expectancy that has taken place during the XXth Century in Europe. Of all age groups, old age and the youth are the life cycle periods that have changed the most (Gil Calvo 1985, Garrido & Requena 1996). In the case of old age, the increase of life expectancy has translated into a lengthening and increase in quality of additional living years and in an increase of the absolute number of people that reach pension age. In the case of youth, the increase in life expectancy had the consequence of increasing the time passed in this youth period. From the perspective of individual life cycle, we can consider that part of the years gained in life expectancy have been invested in the lengthening of youth: the investment in education and the labor market regulations have played a fundamental role in this lengthening, which has been of exceptional nature in Spain.

The so-called Second Demographic Transition in the countries of southern Europe began late, in the middle of the 1970s, and compared to northern Europe, has been characterized by the intensity of the transformations that have been occurring. During this period Southern European countries began to reverse their migratory balance to transform themselves from emigration to immigration countries characterized today by intense population movements mostly from Africa, Eastern Europe and Latin America (Muñoz & Izquierdo 1989, Colectivo Ioé 1999). As in the majority of Western European countries, these movements contribute in a significant way to the population growth and can even take the lead of the demographic dynamics (Cabré et al. 2002). In Spain, this immigration has reached a paradigmatic character. The growing and massive entry of international immigrants in a context of drastic and rapid socio-demographic changes brought about by the lengthening of life, the improvement of both education and labor incorporation expectations for women and youth, together with the existence of weak welfare state, renders the conciliation between family life and labor activities a very hard operation. It is precisely the conjunction of these two socio-demographic phenomena that makes possible the complementary or substitution character of immigration. Complementarity must be understood by the mechanisms thru which immigration accelerate the socio-demographic change and participate to the promotion of Spaniards, especially, though not exclusively, among women and youth (Domingo 2002).

This theme is not totally new in immigration literature. It echoes classical as well as more contemporary works on the role of segmented labor market in immigrants' incorporation into the labor market of Western Europe and other developed countries from the 1950s thru the 1990s (Piore 1979, Portes & Bach 1985, Sassen 1995). Piore mentions in his classical work of 1979 that immigrants serve to occupy the lowest ladder of jobs hierarchy, permitting native workers whether to maintain their position

in the hierarchy or to climb up the hierarchy. This view is not incompatible with the dual-labor market theory as “the unsecured jobs in the secondary sector generally do lie at the bottom of the job hierarchy” (p. 6). The difference between the European and North American labor migration to which Piore refers and the contemporary migration movements in southern Europe and the rest of Europe is that the latter has not the temporary character the labor migration had between the 1950s and the 1970s. Consequently, the immigrants whose desire is to stay in the receiving country try inevitably to improve their position somehow. They do this by moving from one job or industry to another in search for a better place in the hierarchy and by using different strategies, but with unequal outcomes. The immigrant labor force has to be constantly renewed thru additional workforce in order to feed the bottom of the hierarchy. The underlying mechanism appears to be one of a reproduction process of immigrants-specific labor markets. Once immigrants have entered such a labor market or niche up to a given threshold, networks, information channels and even recruitment practices insure a constant supply of co-ethnic workers, not only from the immediate community, but also from the distant country of origin (Sassen 1995).

Another difference is the role played by the competing labor supply offered by women and youth. According to Piore, these groups have a very loose attachment to the labor market. Women, for example, are mostly wives and mothers and their work serves only to supplement male’s earning. Young people would be equally working instrumentally for paying their leisure time or finance their school. Clearly, contemporary Spanish women do not work to bring home a second or complementary income anymore. The growing service sector, the mass education of girls as well as recent family changes such as the declining fertility and increasing divorce trends, and the aging of the female active population have radically modified the opportunity structure and women’s expectations regarding the labor market and their role in the society. In the context of this consolidating position of Spanish women in the labor market, the economic activity of immigrants fulfills a complementary role. This role is realized thru occupations such as household domestic work or home caring of older persons, which were done previously, when the demand was not as high as nowadays, by older women with low educational level. In this respect, it is worth mentioning that household domestic work represent 10% of all immigrants’ jobs (13% in the case of only foreigners), but only 1.6% of Spaniards’ jobs. Both immigrant men and women are over-represented in this type of occupation.

The immigrants’ complementarity role also arises from the general aging of the active population and the decelerating supply of labor provoked by the coming into active age of progressively less numerous cohorts born since the beginning of the Spanish fertility decline in mid-seventies, as this is happening in other countries. Between 1991 and 2001, the number of young Spaniards aged between 15 and 29 years-old dropped by 707.000. In the near future, a further reduction of 2.2 millions young people is expected by 2011. The present decrease in young adult population is accompanied by an increase in the length of studies and a corresponding increase in educational levels. Both trends are not specific to Spain, and according to Enchautegui (1998) the decline in native workforce with low education has resulted in immigrants occupying an increasing share of low-skilled jobs. Immigrants could be thus replacing or substituting young natives in the lowest ladder of the occupational structure where competition for jobs is progressively vanishing, permitting native adults to pursue their progression into the social structure, as proposed by Piore.

A second consequence of the relative shortage of this labor supply deals with the other end of the occupational structure. A growing number of skilled immigrants are and will be required to fill up the positions of professionals, technicians and managerial personal needed by the globalized and the new economy. This is already visible in countries like Germany, Australia and the USA (Castles and Miller 1998). This trend also exists in in Spain, but not as much as the more visible streams from the less developed regions of the world. This subject does not constitute the main focus of this paper, but it worth mentioning it for reasons that will become obvious below.

Data, definitions, methods

The National Statistical Institute of Spain (INE) released recently a 5% sample of households extracted from the 2001 census. This is the basic data we use in this paper. Even though this source of data share all the limitations of any kind of body of information taken at one point in time, this particular file is at the same time has many qualities. First, the number of records (individuals) is large, more than 2 millions. Second, the variables included in the file covers many aspects the individuals, families and households, and the values of most of these variables are very detailed. Third, a set of few but significant variables permit to identify immigrants correctly: country of birth, country of citizenship and year of arrival in Spain. Regarding characteristics of economic activity, there are more than 10 variables, of which 4 are used extensively in this work. And for future research, the sample will allow to study the economic participation of immigrants in relation with the position in the family and the household, or to examine the employment situation at the family or household level.

The dataset presents some specific defects. One is the underestimation of the foreign population. For example, the foreigners enumerated in Spain in 1991 were 15% less than those registered by the residence permits statistics of the same (which does not count immigrants in irregular situation). Another important limitation at the moment of making some detailed analysis of immigration is precisely the size of the immigrant population. Even though the sample is large, immigrants nevertheless represent only 3.7% of the total population at the census, which produces a sample of a little more than 106.000 individuals. Inevitably, what is possible to do with 100% of cases, like studying some small national groups, is rendered an impossible task with a reduced sample. For this reason, it is often necessary to group nationalities. In an even more specific matter, the variable “year of arrival in Spain” delivers a lot of missing values: 34% of foreign-born with the Spanish citizenship and 15% of foreigners did not indicate the year the last time they settled in the country.

The question of how is defined an immigrant is crucial. In Spain, as in France for example, the term immigrant usually refers only to foreign population. Those who have obtained the Spanish citizenship are normally classified as Spanish nationals. It is actually not easy to distinguish between real immigrants (people who intentionally moved from abroad to Spain and subsequently obtained the citizenship) or just Spaniards born abroad from Spanish parents with the Spanish citizenship. This last situation is mostly found in those born in some Western European countries (France,

Germany, Switzerland, Belgium) where intensive labor migrations took place from Spain and other Southern part of Europe to these countries between 1945 and 1975 (Castles & Miller 1998). There is also some second-generation return migration from Latin American countries, that is, Latin American citizens born from Spanish parents who emigrated after the Civil War of the second half of the 30's. It is not sure to what extent this second group really compares with the first one, given that the out-migration movements are earlier and seen at that time as permanent, whereas labor migration to Western Europe was, at least in principle, seen as temporary movements. In any case, the distinction between these two groups based on citizenship is informative on the process of labor incorporation of immigrants in Spain, even though the direction of causality between the quality of labor incorporation and the citizenship status is open to discussion. Table 1 displays basic distributions of the Spanish population by citizenship/birthplace for 7 regions of birth (regions are defined in table 2). The number of cases refers to the size of the sample. Table 3, which is taken from 100% of data, presents the distribution of the immigrant population by sex for selected individual countries of birth.

Regarding the sample used, it was not necessary to use the totality of the Spaniards citizens born in Spain, which represent more than 1.9 millions cases and slowed down considerably computations. We randomly selected 25% of this group, which was added to the entire immigrant sample.

As our prime interest in this work is the study of first-generation immigrants, we excluded all foreigners born in Spain (the category "foreigners born in Spain" in table 1). They represent quite a small group, composed by many children, of about 70.000 individuals in total (3.555 in the 5% sample, or 3% of all immigrants, and even a lower percentage in the case of active or occupied population). We also decided to restrict our analysis to large regional groups defined by place of births instead of specific origin based on individual country. Apart from Spain, we have 6 immigrant groups that are defined in table 2.

Table 1. Distribution of Spanish population by citizenship, birthplace and region of birth, 2001

Citizenship/ birthplace	Spain	West	Eastern Europe	Magh- reb	Rest of Africa	Latin Ame- rica	Asia	Total	N. of cases
Spaniards born in Spain (1.25% sample)	100.0	0.0	0.0	0.0	0.0	0.0	0.0	81.3	479,849
Spaniards born abroad	0.0	45.9	5.3	24.6	15.2	26.8	21.8	5.6	33,211
Foreigners born in Spain	0.0	3.9	2.0	5.1	7.2	1.4	6.6	0.6	3,555
Foreigners born abroad	0.0	50.2	92.7	70.3	77.6	71.8	71.5	12.5	73,482
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N. of cases	479,849	34,052	8,166	17,639	3,968	42,098	4,325		590,097

Source: INE, Census of 2001, 5% sample data file

Table 2. Definition of region of birth	
Group	Definition
Spain	Spanish citizens born in Spain
West	Person of any citizenship born in Western Europe, USA, Canada, Australia, New Zealand, Japan or South Korea
Eastern Europe	Person of any citizenship born in the former socialist block, including the former Yugoslavia
Maghreb	Person of any citizenship born in Morocco, Algeria or Tunisia
Rest of Africa	Person of any citizenship born in the rest of Africa
Latin America	Person of any citizenship born in America, except the USA and Canada
Asia	Person of any citizenship born in Asia or Oceania, except Australia, New Zealand, Japan or South Korea

Table 3. Population of selected immigrant groups by country of birth

Rank	Country of birth	Total	Male	Female	Number of women per 100 men
1	Morocco	310012	188307	121705	64.6
2	Equator	215833	105282	110551	105.0
3	Colombia	172395	72377	100018	138.2
4	France	155965	72674	83291	114.6
5	Germany	135228	65616	69612	106.1
6	UK	107443	52684	54759	103.9
7	Argentina	103050	51440	51610	100.3
8	Venezuela	66887	31476	35411	112.5
9	Romania	58651	34547	24104	69.8
10	Portugal	55475	26997	28478	105.5
16	China	28466	14806	13660	92.3
20	Bulgaria	26262	14715	11547	78.5
24	USA	21155	10156	10999	108.3
27	Philippines	16863	5986	10877	181.7
30	Equatorial Guinea	13175	5304	7871	148.4
32	Senegal	10923	8782	2141	24.4
33	Pakistan	10253	8919	1334	15.0
	Rest of countries	638053	310636	327417	105.4
	All immigrants	2146089	1080704	1065385	98.6

Source: Web site of INE

We use indirect standardization techniques (logistic and multinomial regressions) to control for the effect of age, marital status, education attainment, year of arrival in the country, citizenship status, and place of birth on the propensity to be in different situations in the Spanish labor market. Differences by sex are maintained in most cases, as it is clear that employment characteristics of men and women are different across and within national groups. In most tables and figures, place of birth are detailed up to continental grouping.

The labor market incorporation of immigrants

Labor incorporation of foreigners in Spain takes place within a context of a labor market characterized by its segmentation and an important number of informal jobs, which are occupied by young people, women and immigrants (Baldwin-Edwards & Arango 1999, Izquierdo 2003). The worst aspect of this situation is the existence and growing of temporary and seasonal jobs, unemployment and inactivity, as well as low productivity, all these factors leading to low wages (Consejo Económico y Social 2004). Irregularity among immigrant populations in Western Europe, especially when it translates into low-skilled jobs with independence from immigrants' education level (Salt, Clarke & Wanner 2004), is especially widespread in Spain (Carrasco 2002). There are, according to some rough estimates, around 1.7 millions irregular foreigners in total in early 2005, that is, 49.5% of all foreigners from outside the EU. Unfortunately, census statistics do not permit to identify immigrants' legal status in the country or in the labor market (formal versus informal sector of the economy). In addition to that, the census probably excludes those foreigners who found themselves in situation of marginality, given the fact that the enumeration process is based on self-declaration and linked to a housing inscription (*pardón*) (Martínez Veiga 2003).

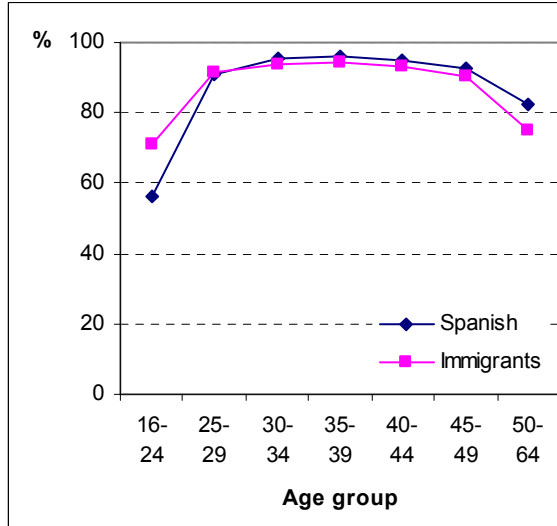
In terms of activity and unemployment rates, there are differences between national groups as well as between men and women. Although male activity rates between Spanish and immigrants are similar, their patterns by age are different. Immigrants begin to work at younger ages. Due to longer schooling, Spaniards enter the labor force later than foreigners, but afterwards male participation rates remains high during the entire adult lifetime. Female pattern is slightly different. With lower participation at both younger and older ages, while immigrant women display a more stable activity rate between 25 and 49 years-old.

In term of unemployment, figure 1 shows that three groups have high unemployment rates: young people, women, and adult male immigrants. Spanish men seem to stand alone in this respect. This finding supports the idea proposed by Epsing-Andersen (1999) that labor market incorporation is uneven across socio-demographic groups (that include immigrants) due to the imposition of barriers to entry into the more regulated or better paid jobs.

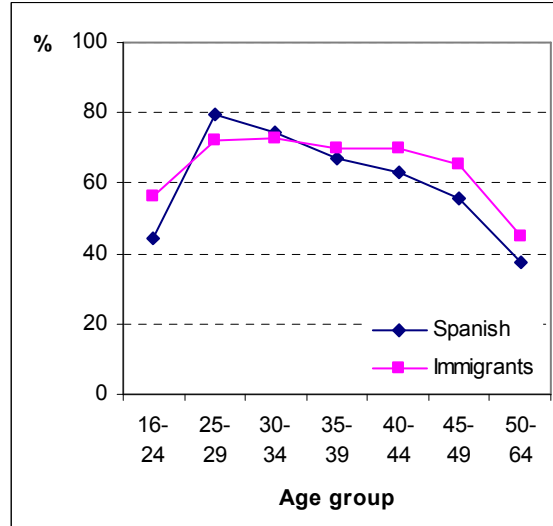
Figure 1. Activity and unemployment rates by sex and age groups for Spanish (natives) and Immigrants

Activity rates

Male

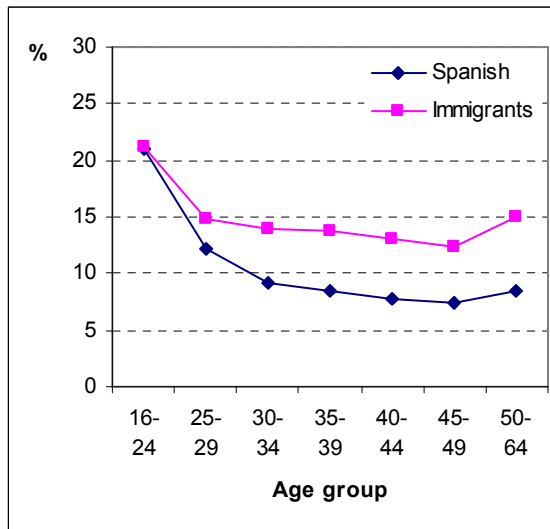


Female

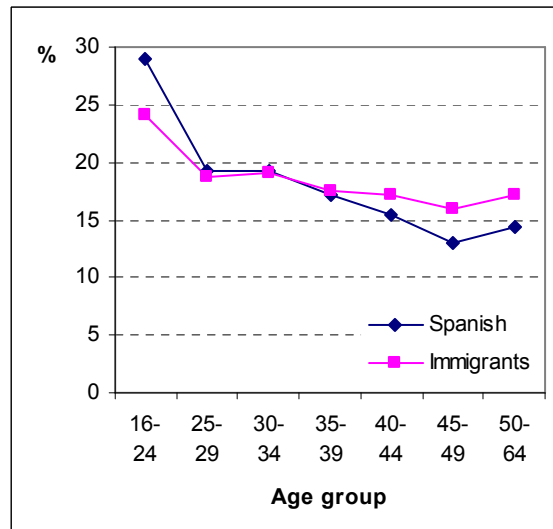


Unemployment rates

Male



Female



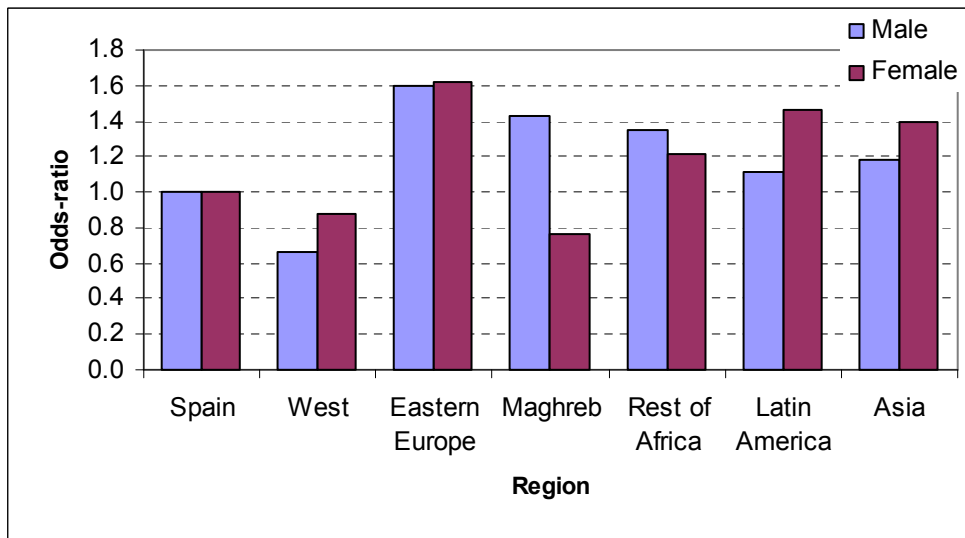
Source: INE, Census of 2001, 5% sample data file

In figure 2 we have calculated the difference in activity and unemployment rates for each sex net from the effects of age, education, marital status, citizenship status (Spanish citizen, foreigner) and year of arrival in the country. We used a “trick” to have at the same time immigrants and Spanish in the table (since by our definition the Spain group is formed by only Spanish citizens born in Spain). Figure 2 is the result of two logistic regressions, one without the covariate “year of arrival in the country” and “immigration status”, and one with all covariates but the Spain group. The odds-ratio between Spain and West is taken from the first model, and the other odds-ratios between West and the rest of non-Spanish regions are taken from the second model.

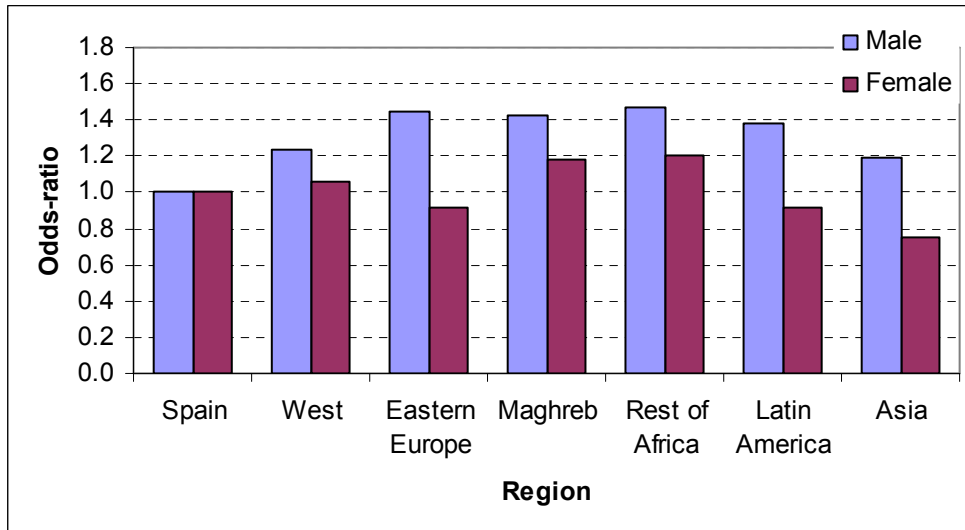
In both models and for both sexes, the reference category, which was originally West, was rescaled so that it is Spain instead.

Figure 2. Activity and unemployment by sex. Odds-ratios results from logistic regression controlling for age, education, marital status, citizenship status and year of arrival in Spain.

Activity rates



Unemployment rates



Source: Own calculations from INE, Census of 2001, 5% sample data file

Activity rates vary a lot after controlling for covariates in the model. Clearly, immigrants have higher labor market participation than Spanish, except for westerners and female from North Africa (Maghreb). Eastern European and African show the highest rates among men (between 30 and 50% higher than Spanish), and again Eastern European as well as Latin American and Asian among women (about 50% higher than Spanish women). Not only women born in Maghreb but also, and

surprisingly, women from developed Western countries display the lowest participation rates.

The situation for unemployment is different, almost the opposite picture. With few exceptions, Spanish declare low unemployment, especially men when compared to the other groups. Eastern European, African and Latin American males are particularly affected by unemployment. Among women, there is much less variation between groups. One interesting finding here for women is that the higher the labor participation rate, the lower the unemployment rate. The reason for this, at least in the case of Eastern European and Latin American, must be related to the kind of work they more provide: the domestic work that offers them a constant flow of employment opportunities.

We turn now to work characteristics of employed population at the moment of the survey. The three following characteristics are examined: the industry (or sector of activity) of the firm the person works for, his occupation and his work situation. This last characteristics is also known as “class of worker”, and consists of a few categories, the most important being self-employed, working for wage on steady or indefinite term, working for wage on non-steady or temporary term, and family worker. This last category mostly concerns family-based agricultural work and it is not analyzed here. The first three are more relevant for immigrants, as we will see below.

Distribution of workers according to industrial sectors and region of birth appears in table 4. The differences by place of birth are of interest here, and although they are influenced by a lot a factors such as age, education..., it is worth mentioning some key points. First, Spanish and other westerners are rather distributed differently in industrial sectors than the immigrants coming from less developed countries. The biggest industries, manufacturing, construction and trade employ workers all origins, but other no. In agriculture and household domestic work, the presence of immigrants from less developed regions is higher than for Spanish and westerners. But in education & health, public services, computer & R+D and finance, Spanish and westerners are significantly over-represented than the rest of groups. Asians (mostly composed by Chinese) form a somewhat exceptional group for its high concentration in the hotel (bars, restaurants, accommodation) and, to a lesser extent, trade sectors.

Table 4. Distribution (%) of natives and immigrants by industrial sectors, 2001

	Spain	West	Eastern Europe	Maghreb	Rest of Africa	Latin America	Asia
Agriculture & fishing	6.1	3.3	15.0	19.9	15.9	6.5	4.0
Mining & extraction	0.2	0.4	0.2	0.1	0.2	0.0	0.0
Manufacturing	18.7	14.8	12.4	13.5	14.4	10.6	10.0
Construction	11.6	10.6	23.1	21.9	19.9	14.0	10.3
Trade	15.6	15.2	9.1	12.2	13.8	11.1	18.2
Hotel	5.9	11.2	9.6	8.4	8.7	12.2	23.5
Transport & communication	6.7	7.2	3.5	3.5	3.9	4.9	4.1
Finance	3.5	4.3	1.3	1.3	1.2	2.2	1.3
Computer & R+D	6.9	8.3	4.4	3.9	5.0	7.1	4.5
Public administration	8.1	5.5	1.3	3.8	3.0	2.8	1.6
Education & health	12.0	13.2	4.5	4.9	5.7	9.1	8.3
Personal services	3.1	4.0	2.3	2.1	3.1	2.8	2.6
Household domestic work	1.7	1.9	13.2	4.4	5.2	16.5	11.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: INE, Census of 2001, 5% sample data file

There is a clear concentration of immigrant workers in four sectors of the Spanish economic activity, namely agriculture, construction, tourism (hotel and restaurants), and domestic services. More than 50% of immigrant workers are found these four sectors in comparison with 24% in the case of Spanish. Their presence is conversely low in the public, semi-public (health and education) and finance sectors.

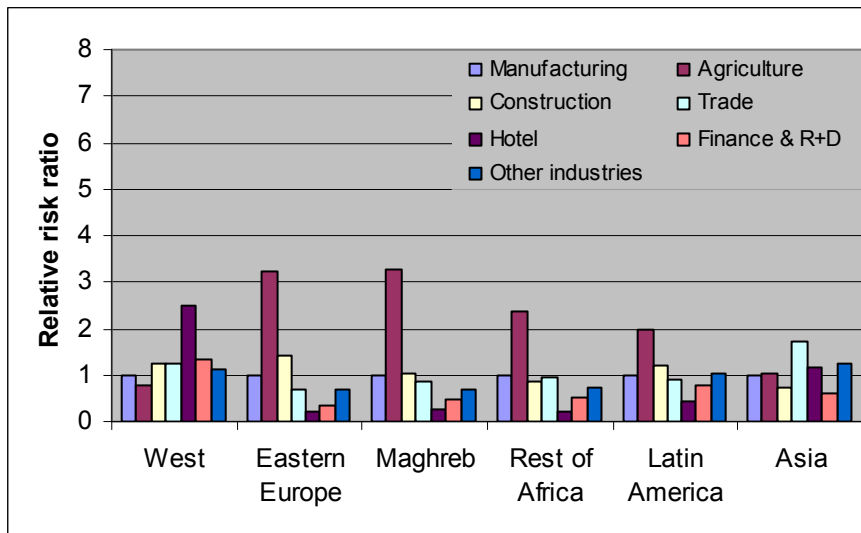
Given that these distributions may be attributable to composition effects between the regions of birth groups, we have standardized these results using multinomial logistic regression. We have also separated men from women. Figure 3 gives the standardized differences between groups for a grouping of industries in 7 categories. The categories are not exactly the same for men and for women because there is a gender effect in the incorporation process into the labor market. The standardization model controls for age, education, marital status, and the full effect of citizenship status and year of arrival in the country (which includes the interaction effect between these two covariates). In the multinomial logistic regression, one industry is set to 1, this is the case for manufacturing for men and trade for women, and one category of region of birth serves as a reference category, which is Spain in this case.

The differences by origins in the case of men are not as big as one could first think. Agriculture is the industry for which four origins are clearly over-represented. However, for West group is over-represented in the hotel sector, whereas for Asians the relative distribution is much more even, with only a slight over-representation in the trade industry. Another result worth to mention is the under-representation of four groups in the hotel and the finance & R+D sectors. For female, the picture is completely different. The over-representation of household domestic work for all groups except the West is striking. The hotel sector is also a significant one for all immigrants, West included.

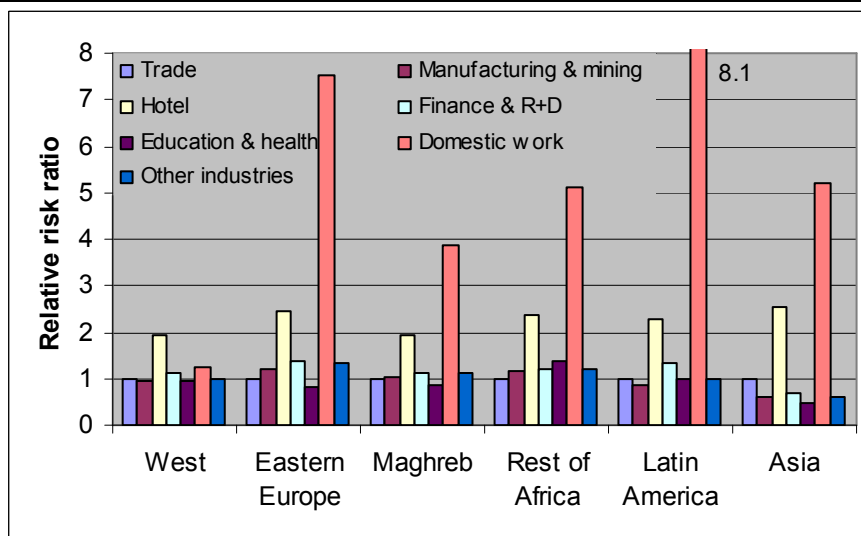
Figure 3. Multinomial relative risk ratio results for the probability of being in industrial sectors by sex and region of birth, controlling for age, education, marital status, citizenship status*year of arrival in the country.

Reference category (not showed in figure): Spain (=1)

Men (comparison industry: manufacturing & mining)



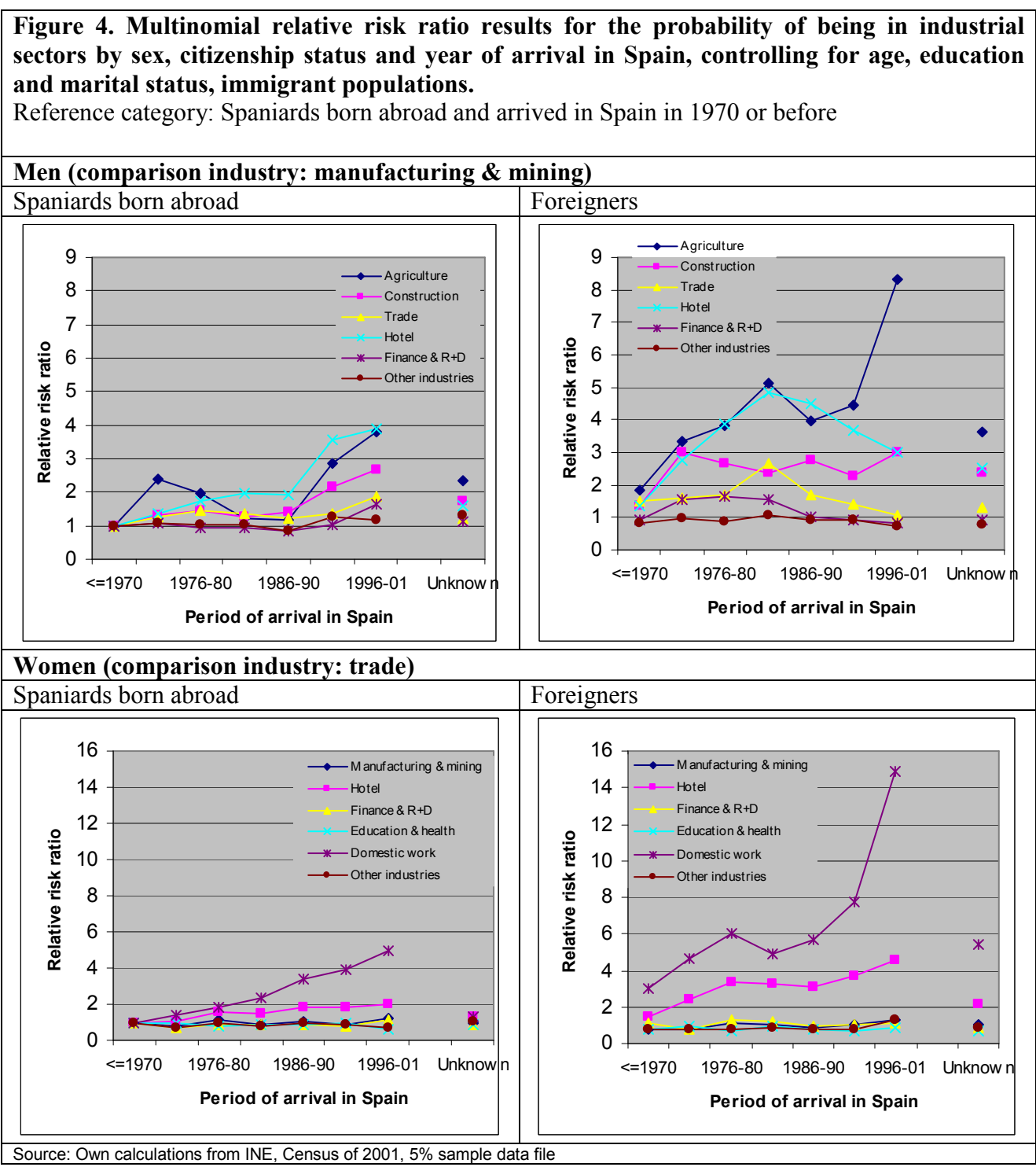
Women (comparison industry: trade)



Source: Own calculations from INE, Census of 2001, 5% sample data file

In figure 4 only immigrant populations are taken into account. For each sex, we distinguish Spaniards born abroad from foreigners on the one hand and period of arrival in country on the other hand. The effect of the “variable year of arrival in Spain” can be the result of at least three factors: a duration effect, the number of year an individual has been living in the country; a period effect, the effect of the historical period (the context) when the individual arrived in the country; and a selection effect, in that people who have stayed in the country may be a selected group of persons, maybe a more successful one than those who chose to leave. We are interested in the first effect.

Figure 4 does not permit to disentangle these three effects, but the results seem to indicate the existence of a duration effect. For foreigners, a recent arrival in Spain (1996-2001) translates into a strong over-representation in specific industries. For men, they are agriculture and for women household domestic work. These two industries represent sectors of entry into the Spanish labor market for most immigrant groups. This effect is less significant for immigrants with the Spanish citizenship.



One can note, however, that this very high share of agriculture and domestic work diminishes rapidly for those arrived earlier. The construction and hotel sectors are also important for immigrants arrived before 1996, even though agriculture and domestic retain their strength as a source of job for many immigrants. A basic factor is played by citizenship status. For immigrants with the Spanish citizenship, the difference by sector tends to disappear for those arrived in the 1980s or before, which is not the case for foreigners (although it is thru that differences are lowering down).

The census data on occupational structure by region of birth also show a significant presence of immigrants from less developed countries in unskilled professions (table 5). As in industrial distribution, Spanish and westerners are quite alike in this distribution. More than one third of Eastern European, African and Latino American on the labor market work as unskilled workers. Nevertheless, a meaningful proportion also works as skilled workers. In total, 50% of immigrants are found in manual work, with very high percentages for East European and Africans. The under-representation of immigrants is especially visible in the professionals and technicians group, and in the managers and self-employed category (Asians represent an exception).

Table 5. Distribution (%) of natives and immigrants by occupational groups, 2001

	Spain	West	Eastern Europe	Maghreb	Rest of Africa	Latin America	Asia
Managers & self-employed	8.1	11.5	2.6	4.5	4.2	5.1	11.7
Professionals & technicians	23.3	27.6	9.3	9.2	10.5	17.0	14.3
Clerical personnel	10.0	10.1	3.5	4.4	4.3	6.5	4.8
Services and trade personnel	14.7	17.2	13.4	12.8	13.0	18.1	26.6
Agricultural skilled workers	3.7	1.8	4.0	4.6	3.5	1.8	1.3
Other skilled workers	29.0	22.3	31.1	29.0	26.0	20.6	17.4
Unskilled workers	11.2	9.6	36.1	35.4	38.5	30.9	23.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: INE, Census of 2001, 5% sample data file

Figure 5 displays the difference between groups when some structural effects are controlled. In addition to the demographic and social covariates used in the previous standardization, the probability of being in one of the occupational group is also controlled for the composition by industrial sector. We have seen above that working in some industries is related to both the citizenship status and the duration of stay in Spain. We ask now whether there exists a similar pattern for occupation, after controlling for industries effect. In fact, if industry is not included in the standardization model, the results are the same as for industry models, with the difference that sectors with high over-representations of immigrants (agriculture, hotel, construction and domestic sector) are just replaced by unskilled work, because immigrant's jobs in these sectors of entry into the Spanish labor market are basically low-skilled jobs. The choice of our standardization model can be discussed, but the basic argument here to justify the addition of industry in the standardization model is to obtain a result that is independent of the entry effect that models for industry return. The question we ask is about how immigrants' occupations, beyond a short term effect explained by industrial rigidities in manufacturing or specific limitation

inherent to some sector such as public administration and public or semi-public institutions, really fit our arguments of the substitution role of immigrants' jobs.

Except for West, figure 5 shows that men are over-represented in unskilled work and to a lesser extent in skilled jobs too. Only Eastern Europeans are significantly under-represented in non-manual jobs. Compared to Spanish, Westerners are found in the group of managers and self-employed, and Asians are especially present in this type of jobs as well as in the trade and services group of occupations. For women, the inter-group differences are much reduced, with a slight over-representation in manual unskilled and skilled jobs.

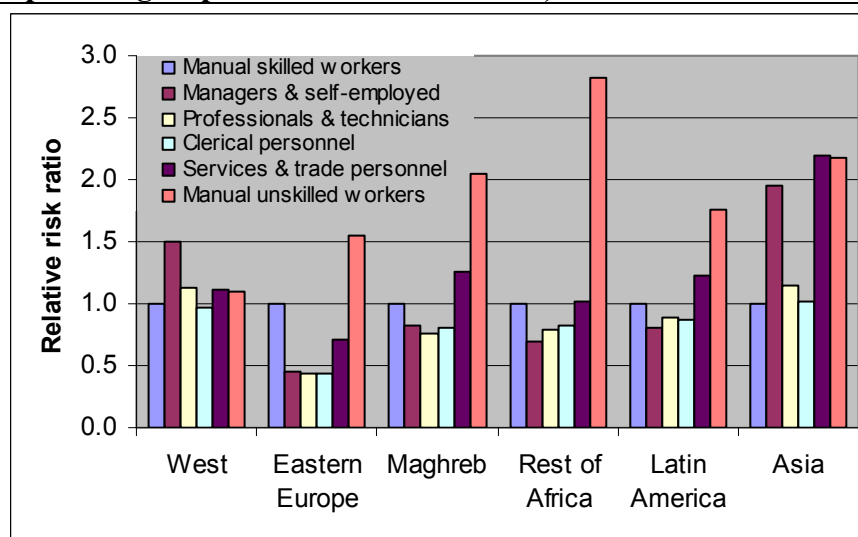
The effect of duration is not very pronounced once the effect of industrial sector is taken into account (figure 6). Few regression coefficients are actually statistically significant, especially in the case of female models. These results suggest a more positive view on immigrants' incorporation into the Spanish labor market. They tend to prove that immigrants' situation in the labor market depends on the mode of entry in it, but once immigrants have entered a specific sector they are able to compete with Spanish citizens if there is anything to compete for. We can conclude that the hierarchical model does not hold in the Spanish context, and as pointed out above, it is because immigrants do not see themselves as guest or temporary workers, but as permanent ones and they are as motivated as Spanish are in trying to climb the occupational structure. This point is confirmed by a recent study using Social Security statistics showing that foreigners experienced an upper labor mobility taking advantage of the positive economic situation in the country (Pumares, in press).

On the other hand, immigrant's labor is clearly used as a short term to complement to the work shortages that are endemic in some specific industries due to socio-demographic evolution of the past decades (reduction in labor supply, aging of active population, increasing of education). This is striking in the agriculture and household domestic work sectors, which act as entrance doors for many foreigners with low (or inadequate) level of skills. In these two cases, immigrants' work force does have a role of substitution. This role becomes clear when comparing education level and age structures of Spaniards and foreigners for some occupational groups (in particular household domestic and low-skilled agricultural workers). Spaniards are characterized by an aging structure and low education whereas foreigners are younger and found across all educational categories (Domingo & Houle, mimeo).

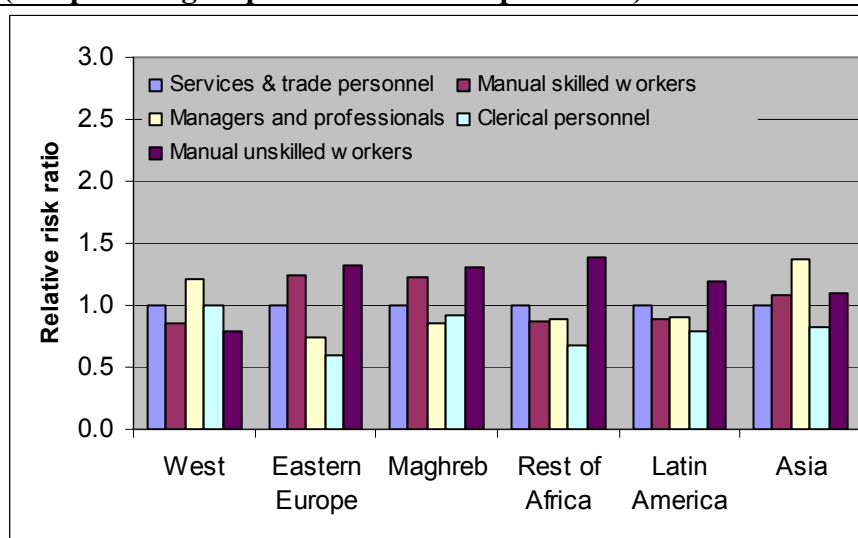
Figure 5. Multinomial relative risk ratio results for the probability of being in occupational groups by sex, and region of birth, controlling for age, education, marital status, industrial sector, and citizenship status*year of arrival in the country.

Reference category (not showed in figure): Spain (=1)

Men (comparison group: manual skilled worker)



Women (comparison group: service & trade personnel)



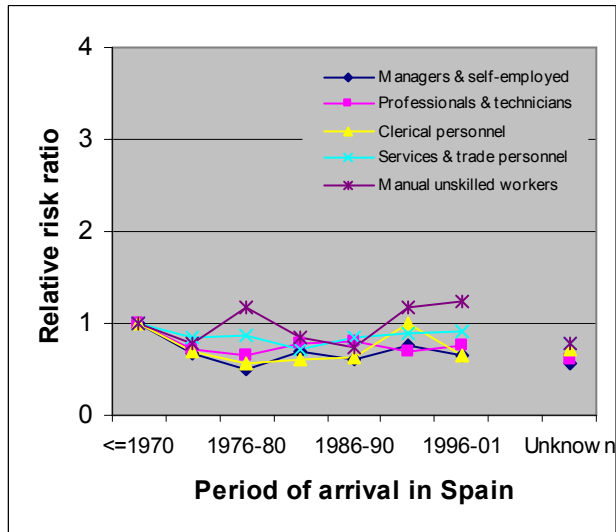
Source: Own calculations from INE, Census of 2001, 5% sample data file

Figure 6. Multinomial relative risk ratio results for the probability of being in occupational groups by sex, citizenship status and year of arrival in Spain, controlling for age, education, marital status, and industrial sector, immigrant populations.

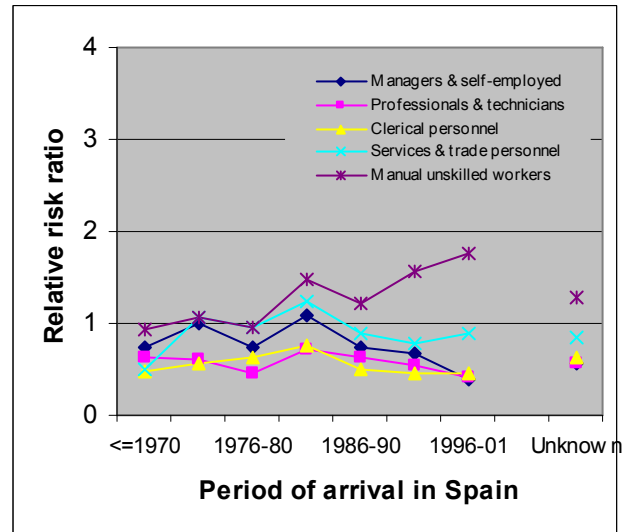
Reference category: Spaniards born abroad and arrived in Spain in 1970 or before

Men (comparison group: manual skilled workers)

Spaniards born abroad

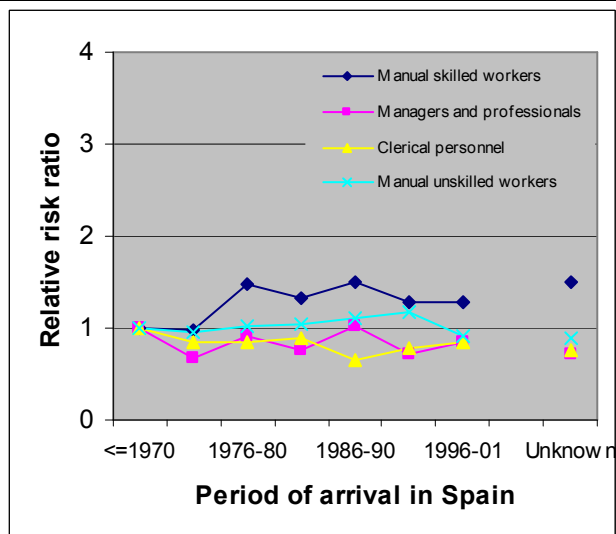


Foreigners

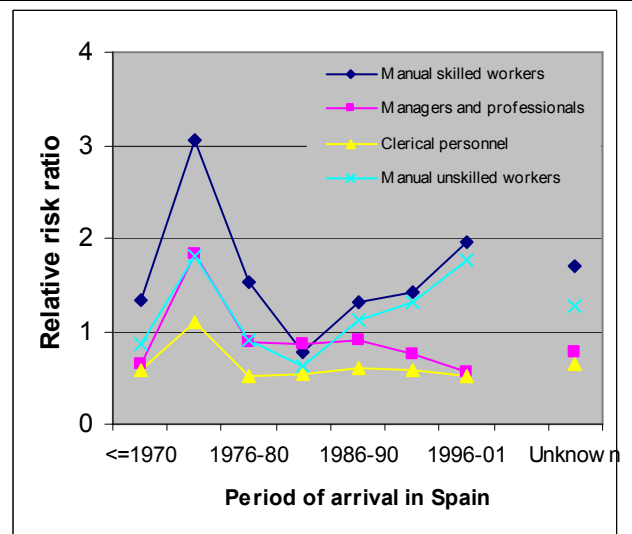


Women (comparison group: services and trade personnel)

Spaniards born abroad



Foreigners



Source: Own calculations from INE, Census of 2001, 5% sample data file

The last point we treat in this paper is the outcome of labor force participation for immigrants. As Spanish censuses do not answer about incomes and wages, we have to use a very indirect (and probably unsatisfactory) measure of the economic success of immigrants into the labor market. We actually measure the opposite, that is, the probability of working for wage on a temporary or seasonally term or contract (as oppose to an indefinite one). The source of this information is the census and it is a

self-declaration question. Apart for working for wage, workers can also be self-employed. Table 6 presents the basic distribution of worker class by region of birth.

Table 6. Distribution (%) of natives and immigrants by work status, 2001

	Spain	West	Eastern Europe	Maghreb	Rest of Africa	Latin America	Asia
Self-employed	16.8	19.5	7.4	10.2	12.4	11.1	21.1
Wage. Steady or indefinite	55.8	51.2	32.3	35.3	35.6	42.2	42.6
Wage. Non-steady	26.5	28.7	59.4	53.9	51.3	46.0	35.8
Other situations	0.9	0.6	0.9	0.5	0.7	0.7	0.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: INE, Census of 2001, 5% sample data file

Approximately half of immigrants work on a non-steady form of contract (if any formal contract at all), whereas natives and westerners have mostly indefinite contracts. Asians are found between these two situations. The specificity of Asians (and especially Chinese) is their relatively high presence in self-employment, which correlates with high representation in the services and trade jobs. This has to be related to the migratory strategies of Chinese in establishing, in the first place, businesses in the hotel sector, and more recently in the textile and trade industries (Beltrán and Sáiz 2001).

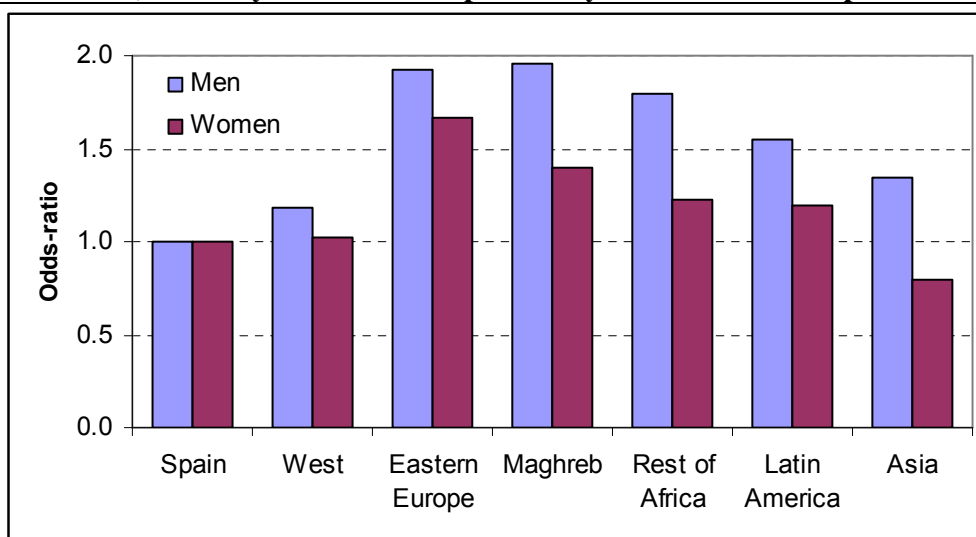
Our prime interest here is on the probability of being in non-steady type of work as a measure of outcome of labor force participation. We calculated the standardized probability of being in a temporary or seasonally type of work or contract (figure 7). We control for the same covariates as in previous figures. The fact of having this kind of contract does not translate automatically into a lower wage, because it may happen that this type of contract is very well-paid, for example in the sub-sector of the new communication and information technologies. What it means, when compared with the natives, is a situation of instability in the labor market (and lower wages in some cases).

The main point arising from figure 7 is that even in a very comparable standardization model design including a control for the industrial sector, immigrants are found in a relatively high proportion in unstable work conditions. The worst positioned groups in this respect are Eastern Europeans and Africans. The situation is better for Latin American and Asians. As usual, westerners are alike natives and are less represented in unstable jobs. We also see that differences for male are larger than for female, and find that female Asians are even in a better position than any other groups including the natives. The Asians' situation is in part a consequence of their high propensity of being in business.

These results are obviously influenced by the specific occupational structure for each combination of immigrant group and sex. They seem to correlate with manual or blue-collar work, and thus to jobs typical of manufacturing, construction and agricultural

industries. In this context, employment of immigrants (and especially foreigners) in these three sectors may be viewed as an “industrial army reserve” (Castles 1989). However, the contemporary pattern of immigrants’ incorporation into the Spanish (and any other developed countries) labor market is very different from what it was few decades ago. Nowadays, the industrial structure is dominated by the service sector, which already employed 60% of the labor force in 2001, with a growing contribution of female labor on the one hand, and highly intellectual work on the other side. The offer side of the service sector is much diversified and in constant evolution. It is also very hierarchically structured, with very low-skilled and very high-skilled non-manual jobs, and not all immigrant groups appear to be under-represented in these occupations as we have seen above. The high presence of immigrants in temporary and seasonal jobs must be viewed in the context of a growing service sector as well, at least to the extent that immigrants are also concentrated in the lower fringe of the occupational structure (as many native women are as well), and this situation should generalize in the years to come.

Figure 7. Working for wage on a temporary or seasonally term or contract by sex. Odds-ratios results from logistic regression controlling for age, education, marital status, industry and citizenship status*year of arrival in Spain



Source: Own calculations from INE, Census of 2001, 5% sample data file

Conclusion

In conclusion, the economic participation of foreigners is concentrated in sectors of activity where their own complementarily is particularly relevant: domestic services, tourism, construction and agriculture. Immigrants’ employment is more extended in the types of work requiring less formation at entry or where the pressure of entry form Spanish is less strong. This substitution role of immigrants is made possible by the aging of the working population, the increasing education attainment of young people and the growing participation of women on the labor market (which also creates its own labor demand).

Immigrants' economic integration is more precarious than for Spanish, and unemployment and unstable job situation (temporality and eventuality) characterize their position on the labor market. This verifies for men and women and at all age group.

By continental groups, we observe that labor integration is worst for Africans, East Europeans, Latin Americans, and Asians, while the situation is much better for westerners

In some sectors where immigrants are highly represented a process of substitution exists, as it is the case for agricultural work. On the other hand, in some other sectors, for example in construction or tourism, the work force's aging process is not so developed and the presence of foreign workers can be seen also as a group competing with Spanish. This situation is partly acting as a promotional effect, pushing Spanish workers up into better positions in the sector as foreigners join the lower levels. But immigrants are also participating in this mobility process. In this situation, immigrants should also be seen as having of substitution effect in these industries, given the high and still increasing level of education of young Spaniards. But a longitudinal study is needed to show this.

A longitudinal and in-depth quantitative survey is needed in Spain to study the process of adaptation of immigrants in the society. Given the dynamics of the present labor supply in the country, the contribution of immigrants is positive and should be even more significant in the future. Other aspects of adaptation also need to be studied in details: the housing situation, the schooling of immigrants' children, and their residential mobility. These aspects are all related, but there is a need to know how, and what are the roads to better integration processes into the Spanish society.

At a more macro level, public power, academics and the public in general has to be aware of the immigrants' contribution to the development of Spanish society. Their effect on the economic structure must be studied not only from the point of view of their labor supply, but also as consumers of goods. Some questions arise such what is lost in taxes because of informal work of immigrants? What kind of immigrants does the Spanish society need? What a new immigration policy could be? What can be learned from other societies where such explicit policies exist?

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