# Immigration and the dependence to the welfare system: The case of France

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Very preliminary version

#### **Abstract:**

In this paper<sup>1</sup>, we use the survey "Budget of the households 2006"<sup>2</sup> that is proposed by INSEE (French National Institute of Statistics), in order to bring to light the link between immigration in France and the appeal to its welfare system: familial assistance, retirement, health, housing assistance, unemployment benefits and *RMI* (which is the French Minimum Guaranteed Income). Our results underline the fact that when we control for differences in characteristics between natives and immigrants, the over representation of migrants among the beneficiaries of social protection is noticed only for the unemployment benefits and for the *RMI* (in top of an over representation also on housing assistance, in particular for the populations born in North Africa). Their dependence in other social protection disposals (familial allocations, retirement and health subsidies) is not significally different from those of natives. We then try to give some explanations for these phenomena and provide a little discussion on migration policy.

**Key Words:** immigration, welfare state, migration policy.

**JEL Codes:** I38, J61, O15.

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<sup>&</sup>lt;sup>2</sup> In French, the « budget des familles » inquiry

#### 1. Introduction and context

The question of international migrations has a very important position in the current political debates in France. Although numerous papers in economics have already ask the question of the impact of migrations, either from the point of view of the source country or from the one of the destination country, a few issues remain. Some of them are difficult to answer because of a lack of data (for instance the question of brain drain versus brain gain) and some of them arise again after a first old "consensus" because of the emergence of new points (that is the case for the debate over the impact of immigration for the host countries with the "new" questions of the role of the welfare state and its equilibriums). Thus for a few decades, an important literature has been developing about those vast and politically sensible questions.

One part of this literature has concentrated on the impacts of emigration for the source countries (Docquier & Rapoport, 2007, dealing with the well known debate between brain drain and brain gain. On the one hand, the departure of people lowers the development human potential of the country, especially if emigrants were skilled individuals, which is often the case: the source country looses it's best educated workers (Bhagwati & Hamada, 1974; Blomqvist, 1986). But, on the other hand, the opportunity to leave one's country to hope for higher incomes and better living conditions can be an incentive for the agent to educate oneself. As everyone cannot finally migrate because of the quantitative restrictions imposed by the destination countries, some skilled workers stay in their home country and contribute to his development (Beine & al, 2007). Moreover, emigrants also send remittances to their community of origin (Lucas & Stark, 1985) and repatriate financial and human capital and also some know-how (Dos Santos & Postel-Vinay, 2003, Mountford, 1997, Beine & al, 2001). This debate is thus still alive, partly because of a lack of reliable and complete data and also because of questions on the appropriate specification of empirical models (Beine & al, 2009).

Another part of the literature on international migrations focused on the effects of immigration for the host countries. The central question here is to examine if the arrival of a group of people in a determine region causes a decrease in local wages for the natives and/or a slump in job opportunities in the labor market. This debate received a relatively early answer which was "no!"; the explanation for that is that the flow of migrants was diluted in the mass of local people and jobs and not massive enough to have an impact (Borjas, 1990; Friedberg & Hunt, 1995; Oudinet, 2005; Malchow-Moller & al 2009). A more recent discussion has come after the initial papers of Borjas (2001, 2003; see also Ottaviano & Peri, 2008), who claimed that this common result could be explained by a fallacious methodology. Till then, the papers used to compare regions with mass immigration with others without immigration, through spatial correlation models, and aimed at concluding about the disparities between the wages and the job opportunities in both. As they did not observe sensitive evolutions in the regions impacted by migrations, they concluded on the absence of any impact. Nevertheless, this methodology actually occults some potential effects if people reallocate between different regions. Indeed, Borjas (2001) pointed that natives who enter in competition with the new immigrants hold an interest to move to regions with less immigrants, so as to preserve their position in the labor market. In the same way, always looking at things with a global perspective, firms with special needs for non expensive labor hold the interest to move into the regions with immigrants and then create new jobs in that places. That is to say that the immigration impacts have to be observed throughout the whole country and not only comparing immigration counties with non immigration ones. With this methodology, some reallocation effects do appear consequently to immigration. Some economic actors become net winners (firms with high needs in low skill labor, and skilled workers, who are complementary to unskilled people) and others become net losers (the unskilled natives, who face a greater competition with immigrants). The global (net) effect of immigration otherwise still doesn't manifest itself very strongly.

More recently, the literature has turned to a linked question, which deals with the impact of immigration on the financial equilibrium of the welfare state. The question is: do immigrant people contribute more or less than they benefit from the welfare state? Told differently, could the welfare state be an incentive in itself for migration and then tend to attract people who would be adversely self-selected (that is people with such attributes that they will be net recipients from the social aiding)? This debate emerged few years ago in the United-States of America through the first study of Borjas and what he has called the "welfare magnet effect" (1999).

At the origin of this debate in the USA stands the increase of the wage gap between natives and immigrants over the last 50 years. Whereas there was a 17% wage gap before 1965 and the setting up of the immigration restrictive policy, it reached 32% in 1997. The difference can be attributed to a change in the nature of the recent immigration flows, which come from poorer countries and are less educated flows (Borjas, 1990, 1999). Furthermore, even after controlling for social and demographic attributes, overdependence to the welfare state persists for immigrants, especially when all kinds of assistance (financial but also non financial aids, such as free medical assistance, the soup kitchen, etc.) are taken into account (Borjas & Hilton, 1996)<sup>3</sup>. Thus, a special effect of being an immigrant seems to exist. Several phenomenons could explain this finding. First, because of the huge disparities between average incomes in the origin country compared with the host country, some immigrated households could consider social benefits as a sufficient way of earning their lives and so decide not to take a job (Hansen & Lofstrom, 2003, 2009). Another common explanation comes from the role of networks constituted by previous migrants; indeed, previous migrants can inform later immigrants about their rights and eligibility for social assistance they could take advantage of. Taking the argument a bit farer, this would also mean that if the network is well developed (spread over several countries), then candidates to immigration can choice their destination under this information (Borjas & Hilton, 1996). However, this argument has to be empirically evaluated because it could be reversed: the network can gather useful information about job opportunities, which could play as a brake to social dependence instead of as an increasing factor for this dependence (Hao & Yukio, 2001).

If the debate has received a considerable attention in the United States, it doesn't have received many gossip columns in other countries until now, presumably once again because of the difficulty to find appropriated data. Yet, Following Borjas, few scare studies have been facing European countries. As far as we now, the existing studies concern Germany, two Nordic countries (Denmark and Sweden), United-Kingdom and Ireland. A special European report from Brücker & al (2002), based on the European Panel (ECHP) have also dealt with 11 European countries (Germany, France, United Kingdom, the Netherlands, Austria, Denmark, Belgium, Greece, Finland, Spain and Portugal) between 1994 and 1996, but with few detailed analysis for each one. The results of these European studies are interesting in so far that they do not make a complete consensus.

<sup>&</sup>lt;sup>3</sup> See Jensen (1988) for a study on monetary assistance only.

From a general and statistical point of view, migrants use more social benefits than natives, but the gap is weak and not systematic, depending on the country examined or on the type of assistance considered. Thus, the dependence upon unemployment benefits appear to hold the most important difference between migrants and natives, even if it is not the case in Germany, UK, Greece, Spain or Portugal (for these countries, the dependence of migrants is the same than for the natives, or even inferior). Logically, natives receive old pensions more often: there are much fewer "old" immigrants than "old" natives; told differently, migrants are younger than natives and even if they spent their whole working life in their host country, they may not have gathered all the needed conditions to apply for an old pension. The case of familial benefits is also different between countries. The Netherlands, France and Austria remit more familial benefits to migrants than to natives. No gap can be observed among other countries. From an aggregated point of view (all benefits included), and if we take into account the migrants' characteristics, the study of Brücker & al (2002) shows that immigrants have a slightly higher probability to benefit from the social assistance, but that the difference remains extremely weak. The other studies, focused only on one or two countries, deliver more details. Whatever the period, the same result for Germany holds: the overdependence of immigrants totally disappears when controlling for the characteristics of the households: holding everything constant, migrants do not depend more from the social assistance than natives (Brücker & al, 2002; Riphahn, 1998, 2004; Castronova & al, 2001). But Germany seems the only case where we observe such a result. Ireland is another special case but, on the contrary to Germany and to other countries, immigrants in Ireland are less dependent from social assistance (Barrett & McCarthy, 2007, 2008). This could be a consequence of the high skilled level of immigrants in this country, or just the result of the conditions to be eligible to welfare (people need to be settled since at least 2 years before being authorized to apply for any assistance). For every other country, immigrants appear more dependent than native people, with some peculiarities between countries (in Sweden, the dependence decreases with duration (Hansen & Lofstrom, 2003) conversely to Denmark where it remains as heavy as during the first months (Nannestad, 2004)).

Thereby we really often are back to the conclusion of Brücker & al (2002), also emphasized by the papers of Borjas: differences in the objective characteristics of migrants do not explain the overall gap in the dependence to the welfare system. A "residual effect" persists. This effect can be due to the discrimination toward migrants, network effects, or the impact of non-observable characteristics<sup>4</sup>.

Despite these surveys, the question of the welfare magnet is still a point of interest for economic research, especially for countries with no or few studies on it. As we said, France is in that case. Moreover, the French government has engaged since July 2006 in a selective migration policy. So the questions are strong about the real budget impact of immigrants in France and about the expected efficiency (or inefficiency) of that kind of political position. Our study consists in completing these works realized for Europe in focusing on the French case<sup>5</sup>. The case of France was scarcely studied even if this country if one of the very first migration receiving countries in Europe. We use the same empirical methodology as foreign studies to ask if the observed statistical overdependence of immigrants to the French welfare state remains when we control for their peculiar attributes. In order to cheek this assumption, we propose now some descriptive statistics to present the picture of the current French

<sup>&</sup>lt;sup>4</sup> These characteristics could play an important role. For example, we can think about the different abilities, a gap in the motivation, etc. A few studies (Riphahn, 1998; Hansen & Lofstrom, 2009 for example) specify these differences of motivation through differences in behavior: preference for the leisure rather than for labor will lead to different choices in term of labor offer. If migrants have an increasing preference for the leisure and if their wage requirement is higher to accept an offer, they will be more willing to make the choice to stay at home and to ask for social benefits.

<sup>&</sup>lt;sup>5</sup> The work of Brücker and al (2002) is the only one that proposes few results about France.

immigration and the link between this immigration and the appeal to the welfare system (section 2). In the following section, we will estimate the probability to receive social benefits, depending on the geographic origin and controlling for the characteristics of the individuals. Section 4 will then conclude and propose some discussion about migration policies.

# 2. Data and descriptive statistics

This section is devoted to a brief description of our data (2.1) before we turn to some words on the nature of immigration in France, which does not exactly follows the usual picture of the "representative international migrant" described in the literature (2.2). We will confirm this last portrait of the immigrants in France with descriptive statistics from our dataset on their skill level comparatively with the natives' one, their position relying to the job market, in addition to some basic description of their familial status and the composition of the households. We will finally present descriptive statistics on the dependence upon the welfare system for each population (2.3).

## 2.1. Description of the dataset

To test our hypothesis about the links between the status of being an immigrant person and the dependence to the welfare state, we need data which combine socio-demographic descriptions, professional information about people and the sources of incomes, especially those coming from social assistance. In France, the INSEE (the French National Institute for Statistical and Economic Studies) provides such a dataset, named the 'budget des familles' survey. We use the latest disposable survey, that of 2006. We thus have information on the individuals and households who live in France, among which their expenses, resources and consumption. All details are provided in a very desegregated way, excepted for the countries of origin as we will see later. Having merged the "households dataset" which contained 10240 observations and the "individuals dataset" containing 25364 observations, and with some other transformations, we obtained a 17061 adult individuals (aged 18 years old or more) dataset.

Among the 17061 individuals, about 46% are men and 54% are women. The population is fairly distributed between each age group except for the 18-29 years old group. Concerning this one, the staff is lower because we skipped the 15-18 years old in order to take into account only individuals in age to take a migration decision on their own.

Immigrant people can be identified by two different statistics. The first one is the nationality and the second one is the place of birth. Following the first criterion, we have 15365 French individuals whereas 979 individuals would belong to the group of the "other nationalities" (country of the UE-15 keeping France apart, North African countries (Maghreb), Sub-Saharan Africa, etc.). The second criterion (the place of birth) leaves about 2000 persons born in another country than France. This is this criterion that we will choose throughout our study. Several reasons have determined our choice. The first one is a simple question of the minimal number of observations needed to produce significant results. A second reason comes from the naturalization phenomenon (defined as the acquisition of the nationality of the country where the individual live without being born in this country). This generates a gap between the proportion of migrants defined in reference to the country of birth and the proportion of migrants defined by the criterion of nationality. This gap is eye catching concerning the population from North Africa in France: immigrants from North Africa (743 individuals, 4.35%) often adopt the French nationality, and then induce a decrease

in the North Africans' nationalities in proportion (the number falls to 1.5 % or 257 persons). In a fewer extend, it is also the case for the "other European" people, who represent 4% of the sample if we relate to the country of birth, but only 2.3% if we consider the nationality (tables 1 and 2).

Table 1: distribution according to the place of birth

| Birth area         | Number | Percentage | Cumulated number | % cumulated |
|--------------------|--------|------------|------------------|-------------|
| France             | 14 811 | 86,81      | 14 811           | 86,81       |
| (Metropolitan)     |        |            |                  |             |
| French overseas    | 136    | 0,8        | 14 947           | 87,61       |
| departments and    |        |            |                  |             |
| territories (FODT) |        |            |                  |             |
| EU-15              | 686    | 4,02       | 15 633           | 91,63       |
| EU-25              | 43     | 0,25       | 15 676           | 91,88       |
| Maghreb            | 743    | 4,35       | 16 419           | 96,24       |
| Other Africa       | 247    | 1,45       | 16 666           | 97,68       |
| Other              | 395    | 2,32       | 17 061           | 100,00      |

Source: Statistics from the authors using the BdF06 survey.

Table 2: distribution according to the nationality

| Birth area         | Number | Percentage | <b>Cumulated number</b> | % cumulated |
|--------------------|--------|------------|-------------------------|-------------|
| Born French        | 15 365 | 90,06      | 15 365                  | 90,06       |
| Naturalized French | 722    | 4,23       | 16 087                  | 94,30       |
| Naturalized UE-15  | 403    | 2,36       | 16 490                  | 96,66       |
| Naturalized UE-25  | 10     | 0,06       | 16 500                  | 96,72       |
| Naturalized        | 257    | 1,51       | 16 757                  | 98,22       |
| Maghreb            |        |            |                         |             |
| Naturalized Africa | 106    | 0,62       | 16 863                  | 98,85       |
| other Maghreb      |        |            |                         |             |
| Other/Stateless    | 197    | 1,15       | 17 060                  | 100,00      |

Source: Statistics from the authors using the BdF06 survey.

The last reason to hold a criterion based on the country of origin and not on the nationality is that the opposite choice would prevent us from some explanations for our results. To simply quote two examples, it is not because you have changed your nationality that you won't be discriminated (your first name, last name or just the color of your face can be used as a signal to exclude you from the labor market); similarly, changing nationality won't necessarily change your way of living, your preferences and so on. If the overdependence to social assistance is linked with either one or the other of these two possible explanations, then a geographical origin criterion will better capture them. Table 3 summarizes the previous results according to groups of ages and bringing every non native places of birth together.

Table 3: Distribution by age according to the grouped countries of birth

|                    |        | 18-29<br>years old | 30-39 | 40-49 | 50-59 | <b>60</b> and + | Total  |
|--------------------|--------|--------------------|-------|-------|-------|-----------------|--------|
| Born in            | Number | 1786               | 3116  | 3041  | 2878  | 4072            | 14 893 |
| France             | %      | 11,99              | 20,92 | 20,42 | 19,32 | 27,34           | 100%   |
| Born in a          | Number | 201                | 397   | 512   | 469   | 589             | 2168   |
| foreign<br>country | %      | 9,27               | 18,31 | 23,62 | 21,63 | 27,17           | 100%   |

Source: Statistics from the authors using the BdF06 survey.

To close the discussion on that point, note that we do not identify precisely the children born in France but from foreigner or foreign-born parents. These children appear in our data as natives as they're born in France; moreover, at the age of 18, few of them choose to renounce to the French nationality even if they could under the law. Of course, these people may be discriminated just like their parents were or they may behave the same way as their parents and make similar choices, but we do not have the information of the origin of each individual' parents in our dataset. We then cannot deal with the questions of the second or third immigrant generations. In order to better understand the relationship between immigrant people and the welfare state, the following section presents some statistical results especially on their position to the job market.

#### 2.2. Description of the French immigration

An abundant literature has dealt with the question of the motivations to migrate and the characteristics of international migrants since the initial paper of Sjaastad (1962) which has set the basis of what is called the new economics of migrations. Just considering the empirical facts that some regions were sending emigrants but also receiving immigrants in the same time, he put the light on the important role of the costs of migration adding to a vast number of possible incentives. People do not only react to disparities in the average observed incomes in two areas but take into account the chances to obtain a job (Harris & Todaro, 1970), the conditions of living, the amenities and also the monetary and psychological costs before making their decision to move or not. Many factors may influence the final decision so that it is difficult to predict the net migration flow within a specific region or area. Conversely, the literature has managed to describe the main attributes of international migrants. The typical picture of them would be skilled men, who were not too poor at the origin because of the cost of moving, and who are seeking of a better level of income, better conditions of living for them as well as for their children and community (Greenwood, 1985). This picture holds true as far as the migration choice is a free decision, at the opposite of forced migrations (induced by wars, persecution or climate disasters). But this portrait has to be put in perspective because several institutional and political factors can play a big role. To illustrate that idea, the case of France is a pretty good example. France has built long historical relations with some well identified countries in which it has dug up an important workforce after the Second World War and for 30 years approximately. Nowadays, the major proportion of its immigration comes from these countries (it has been the case of Italy and Portugal until a recent period, then these flows have nearly stopped and left the place for North-African flows which now constitute the majority of the annually flows). In addition, facing economical difficulties in the middle of the 1970s, France tried to stop immigration and to encourage return migrations and has actually developed the family entry and settlement motivation to immigrate at the expense of labor motives. Jugging from the census of 1999, approximately 70% of non-European foreigners were settled in France thanks to familial

reasons, compare to 40% in the case of migrants from the European Economic Area (Lebon, 2001). These proportions remain stable over time. Thus, the inflow in 2003 was composed of 79% of persons accepted thanks to this familial criterion (Insee, 2005). We can notice that French immigration mainly corresponds to an immigration flow from the poorest countries: Algeria (18% of entries in 2005), Morocco (15%), Turkey (7%), and Tunisia (6%). Other nationalities that immigrate in France represent a much weaker flow. Our data obviously are in connection with those well-known remarks.

We have put in appendix the tables presenting classical statistics on the size and composition of families. As expected, households composed with only one person are more numerous in the native population whereas foreign born households, especially North African ones are more often in couple and have children (appendix 1 and 2). The most important statistics for our concern are those relating the skill levels of the different populations and their professional positions. The first assessment reveals that individuals born abroad are on average much less skilled than natives (table 4).

Table 4: skill level according to the geographical origin

|         |        | High<br>School<br>Degree<br>+5<br>years<br>and<br>more | High<br>School<br>Degree+3+4 | High<br>School<br>Degree+2 | High<br>School<br>Degree | Professional<br>degree (less<br>than High<br>School<br>degree) | Secondary<br>school | Total  |
|---------|--------|--|------------------------------|----------------------------|--------------------------|--|---------------------|--------|
| Born in | Number | 144  | 2038                         | 1386                       | 1938                     | 4325   | 5116                | 14 947 |
| France  | Line % | 0,96   | 13,63                        | 9,27                       | 12,97                    | 28,94  | 34,23               | 100%   |
| Total   | Number | 14   | 354                          | 122                        | 241                      | 329  | 1054                | 2114   |
| born    | Line % | 0,68   | 17,03                        | 5,87                       | 11,54                    | 15,38  | 49%                 | 100%   |
| abroad  |        |  |                              |                            |                          |  |                     |        |
| Born in | Number | 4  | 105                          | 31                         | 63                       | 116  | 410                 | 729    |
| EU      | Line % | 0,55   | 14,40                        | 4,25                       | 8,64                     | 15,91  | 56,24               | 100%   |
| Born in | Number | 3  | 98                           | 38                         | 82                       | 139  | 383                 | 743    |
| Maghreb | Line % | 0,40   | 13,19                        | 5,11                       | 11,04                    | 18,71  | 51,55               | 100%   |
| Born in | Number | 7  | 151                          | 53                         | 96                       | 74   | 261                 | 642    |
| Africa  | Line % | 1,09   | 23,52                        | 8,26                       | 14,95                    | 11,53  | 40,65               | 100%   |

Source: Statistics from the authors using the BdF06 survey.

The levels of skills reported here correspond to the higher skill level at the date of the survey. They can have been performed in France or abroad. About half of agents born abroad (49%) do not overpass the middle school, compared with 34% among the individuals born in France. These statistics are conformed to those published by the French institute of statistics based on the French Census of Population (for example, 41% of unskilled people among migrants compared with 21% among natives in 2005). On the other hand, the highest share of unskilled (maximum middle school) is observed among individuals from European countries (56% have no more than this educational level), who are followed by individuals from North Africa (51%) and other Africans (closed to 41%). A few migrants (15.38%) compared with the natives (29%) reach short and professional training such as the French CAP (Vocational training qualifications), BEP of other professional certificates. Nevertheless, situations are not exactly the same according to the precise geographical origin of migrants. If all migrants are less represented than natives in this category of skill level, Africans are the least represented, followed by other Europeans, North African people and French individuals even if the gap

between the last two groups reaches not less than 10 percentage points. At the opposite, the share of holders of high school diploma is the same among all groups of population (except for Europeans who are still weakly represented). It is also the case concerning graduates of the higher education (that is the University, with all its levels merged). The last striking fact is the following: 23.5% of Africans have a certificate which corresponds to "High school diploma +3 or 4 years studying". It is far from all other categories, including natives. They are also more represented on the category of high diplomas (High school diploma +5 and more (Ph-D, etc.)). This acquisition can have been made after the migration, in France, and this may even be the migration motive, but we can't check this assumption because we have no information about the date or the age when the agent arrived in France.

Now, let's be concerned with the occupational positions of each population. Table 5 first shows individual positions with respect to the labor market. 57% of the natives have a job, compared to only 49% among individuals born abroad. At the opposite, unemployment affects 10% of immigrants against near than two times less (5.33%) for natives<sup>6</sup>. Housewives (or househusband) are also more represented among foreigners than among French (13 % against 6.5 %). Job access is different between migrants and natives, and mainly between migrants from North Africa and others. While the former are less than 42% to get a job, the proportion gets around 50% on average for the rest of the population. A clear difference appears between Europeans and non-Europeans as 5% of the immigrated population is jobless for the first ones compared with 10% for the second ones. Finally, note the peculiarity of the Africans' situation as this category has simultaneously the best rate of people holding a job (except for the natives) but also the worse rate according to the rate of jobless people comparatively to other populations. That means that intermediate positions (retired, etc.) are on average much less frequent among these people.

<sup>&</sup>lt;sup>6</sup> This rate is lower than the national average (between 8% and 10% for the last decade). This is partly due to a sampling effect: the unemployment rate among the overall population is "only" 5.94% here, which is under-evaluated compared with the national rate (between 8 and 10% for the last ten years).

**Table 5: Main situation with regard to the employment** 

| Born in France:         - Number       8601       31       252         (% among natives)       57,5       0,21       1,69         4       4     Total migrants,  - Number 1038 3 43  (% among 0,14 2,11) | 796<br>5,33<br>218<br>10,45 | 3982<br>26,64<br>478<br>22,03 | 972<br>6,50<br>284<br>13,49 | 313<br>2,09<br>50<br>2,37 | 1494<br>7<br>100%<br>2114<br>100% |
|--|-----------------------------|-------------------------------|-----------------------------|---------------------------|-----------------------------------|
| (% among natives)     57,5 4     0,21 1,69       Total migrants,       - Number     1038     3 43       (% among     0,14     2,11   | 5,33                        | 26,64<br>478                  | 6,50                        | 2,09                      | 7<br>100%<br>2114                 |
| Total migrants, - Number 1038 3 43 (% among 0,14 2,11  | 218                         | 478                           | 284                         | 50                        | 100%<br>2114                      |
| Total migrants,           - Number         1038         3         43           (% among         0,14         2,11  |                             |                               |                             |                           | 2114                              |
| - Number 1038 3 43<br>(% among 0,14 2,11   |                             |                               |                             |                           |                                   |
| (% among 0,14 2,11   |                             |                               |                             |                           |                                   |
| · · ·  | 10,45                       | 22,03                         | 13,49                       | 2,37                      | 100%                              |
|  |                             |                               |                             |                           | 10070                             |
| migrants) 49,4   |                             |                               |                             |                           |                                   |
| Whose: 1   |                             |                               |                             |                           |                                   |
| Born in EU:  |                             |                               |                             |                           |                                   |
| - Number 370 1 7   | 39                          | 219                           | 75                          | 18                        | 729                               |
| (% among UE) 50,7 0,14 0,96  | 5,35                        | 30,04                         | 10,29                       | 2,47                      | 100%                              |
| 5  |                             |                               |                             |                           |                                   |
| Born in North  |                             |                               |                             |                           |                                   |
| Africa: 311 1 11   | 88                          | 203                           | 112                         | 17                        | 743                               |
| - Number 41,8 0,13 1,48  | 11,84                       | 27,32                         | 15,07                       | 2,29                      | 100%                              |
| (% migrants north 6  |                             |                               |                             |                           |                                   |
| afr.)  |                             |                               |                             |                           |                                   |
| Born in Other  |                             |                               |                             |                           |                                   |
| <u>Africa:</u> 357 1 25  | 91                          | 56                            | 97                          | 15                        | 642                               |
| - Number 55,6 0,16 3,89  | 14,17                       | 8,72                          | 15,11                       | 2,34                      | 100%                              |
| (% migrants Afr. 1   |                             |                               |                             |                           |                                   |
| and other)   |                             |                               |                             |                           |                                   |

Source: Statistics from the authors using the BdF06 survey.

Concerning the retirement situation, we can notice that a few numbers of Africans in France get a pension. They probably have not accumulated all the conditions required to get an old pension. Natives and North Africans experiment equal shares of dependence, and 30% of other Europeans settled in France benefit from an old pension.

To turn finally to the last part of our description, we have isolated employed individuals and captured the type of work they carry out (table 6). Before commenting the results, some words on the French labor contracts may be useful. The main type of contract is what is called the "CDI" (namely "undetermined duration contract) which is the closest contract to the ones in other countries: after the agent has been hired, he keeps his job unless he is fired. More than three quarters of the salaries in France hold this type of contract. They can be either full-time or part-time employees. The second main type of contract is called "CDD" (determined duration contract) and it anticipates the date at which the labor relationship will end (the employee can be full-time or part time here again). Besides these two forms of contracts, many others exist. Some of them are usual abroad too, just like apprenticeship or temporary jobs. Others are specifically French and come from political choices; they are public financed jobs, with a fixed term. Our results show yet very weak differences between the situation of employed immigrants and natives. Gaps mainly concern two groups: jobs in fixed duration and "Full-time CDI": migrants are more represented in these types of jobs. Nevertheless, even in those cases, gaps remain relatively low and weakly significant. Then we conclude than differences are more important in the access to the job (employment/unemployment) than in the type of job. As observed by the French national institute of statistics, different situations are observed in term of social and occupational

<sup>7</sup> Handicapped persons, etc.

sectors: traditionally, we find migrants (mainly from Africa) caring out unskilled jobs in industrial sectors, in the building and public works or in the services to the persons (Insee, 2005) but the main point of interest is the one of the accessibility to the job market.

**Table 6: job situation of the working population** 

|                               | Apprent. | Temporary<br>jobs | Paid<br>training | Public<br>financed<br>job | "CDD" | Full-<br>time<br>"CDI" | Part-<br>time<br>"CDI" | Sum of occupied people |
|-------------------------------|----------|-------------------|------------------|---------------------------|-------|------------------------|------------------------|------------------------|
| Born in France :              |          |                   |                  |                           |       |                        |                        |                        |
| - Number                      | 21       | 93                | 19               | 73                        | 566   | 5854                   | 1118                   | 7744                   |
| (% among natives)             | 0,27     | 1,20              | 0,25             | 0,94                      | 7,31  | 75,59                  | 14,44                  | 100%                   |
| Total of migrants,            |          |                   |                  |                           |       |                        |                        |                        |
| - Number                      | 1        | 19                | 2                | 5                         | 101   | 655                    | 138                    | 921                    |
| (% among migrants)            | 0,12     | 2,03              | 0,21             | 0,53                      | 11,05 | 71,11                  | 14,94                  | 100%                   |
| With:                         |          |                   |                  |                           |       |                        |                        |                        |
| Migrants Born in EU:          |          |                   |                  |                           |       |                        |                        |                        |
| - Number                      | 0        | 5                 | 2                | 1                         | 26    | 237                    | 52                     | 323                    |
| (% among migrants EU)         | 0,00     | 1,55              | 0,62             | 0,31                      | 8,05  | 73,37                  | 16,10                  | 100%                   |
| Born in North Africa:         |          |                   |                  |                           |       |                        |                        |                        |
| - Number                      | 1        | 4                 | 0                | 1                         | 35    | 195                    | 39                     | 275                    |
| (% among migrants North       | 0,36     | 1,45              | 0,00             | 0,36                      | 12,73 | 70,91                  | 14,18                  | 100%                   |
| Afr.)                         |          | , -               |                  |                           | ,     |                        | , -                    |                        |
| Born in other africa:         |          |                   |                  |                           |       |                        |                        |                        |
| - Number                      | 0        | 10                | 0                | 3                         | 40    | 223                    | 47                     | 323                    |
| (% among migrants Other Afr.) | 0,00     | 3,10              | 0,00             | 0,93                      | 12,38 | 69,04                  | 14,55                  | 100%                   |

Source: Statistics from the authors using the BdF06 survey.

To sum up our comments, differences in human capital and thus positions in the labor market are important between natives and immigrants, particularly among non-European ones. Migrants are more likely to be less educated, and "out of job" or, when they get a job, they carry out unstable jobs. Thus, we expect to find these differences in the rates of appeal to the welfare system according to the geographical origin. It would mainly concern unemployment benefits and *RMI* (Minimum Guaranteed Income), which are supposed to land in the difficulties connected to the professional life. We have also underlined earlier some differences in lifestyles, particularly in the number of children per household; we thus expect to observe gaps in the dependence to familial assistance. The following section proposes some descriptive statistics on the relationship between migrations and the welfare system.

#### 2.3. Descriptive statistics concerning dependence of migrants t the welfare system

This section proposes a statistical overview about the appeal to the welfare system in France. First, it is necessary to define what we mean with the "welfare system" in our study. In this paper, we consider old pensions, familial assistance (grouped with familial benefits and scholarship), health reimbursement, housing assistance, unemployment benefits and the *RMI*. Table 7 presents the number of agents using these services by places of birth (France, Europe, North Africa and Sub-Saharan Africa and others); it corresponds to the probability that the agents benefit from these disposals, whatever the amounts they receive.

Table 7: the probabilities of being a beneficiary of the welfare system according to the geographical origin

|                                  | Born in<br>France | Born in<br>EU | Born in<br>North Afr. | Born in<br>Afr (oth) |
|----------------------------------|-------------------|---------------|-----------------------|----------------------|
| Retirement                       |                   |               |                       |                      |
| - Number                         | 4599              | 267           | 248                   | 74                   |
| - Column %                       | 30,77*            | 36,63         | 33,38                 | 11,53                |
| - Line %                         | 88,65**           | 5,15          | 4,78                  | 1,43                 |
| Basic familial assistance        |                   |               |                       |                      |
| - Number                         | 3512              | 165           | 200                   | 256                  |
| - Column %                       | 23,52             | 22,73         | 26,95                 | 39,94                |
| - Line %                         | 84,97             | 3,99          | 4,84                  | 6,19                 |
| Family benefits and scholarships |                   |               |                       |                      |
| - Number                         | 3768              | 175           | 235                   | 281                  |
| - Column %                       | 25,21             | 24,01         | 31,63                 | 43,77                |
| - Line %                         | 84,50             | 3,92          | 5,27                  | 6,30                 |
| Ills                             |                   |               |                       |                      |
| - Number                         | 834               | 60            | 48                    | 24                   |
| - Column %                       | 5,58              | 8,23          | 6,46                  | 3,74                 |
| - Line %                         | 86,34             | 6,21          | 4,97                  | 2,48                 |
| Housing assistance               |                   |               |                       | _                    |
| - Number                         | 2042              | 86            | 254                   | 217                  |
| - Column %                       | 13,66             | 11,80         | 34,19                 | 33,80                |
| - Line %                         | 78,57             | 3,31          | 9,77                  | 8,35                 |
| Unemployment benefits            |                   |               |                       |                      |
| - Number                         | 1747              | 98            | 138                   | 129                  |
| - Column %                       | 11,69             | 13,44         | 18,57                 | 20,09                |
| - Line %                         | 82,72             | 4,64          | 6,53                  | 6,11                 |
| RMI                              |                   | •             |                       | _                    |
| - Number                         | 338               | 17            | 63                    | 56                   |
| - Column %                       | 2,26              | 2,33          | 8,48                  | 8,72                 |
| - Line %                         | 71,31             | 3,59          | 13,29                 | 11,81                |

Source: Statistics from the authors.

# a. The health insurance and the incapacity<sup>8</sup>

The category which is the most numerous to benefit from this disposal is the European one (8.23% of European immigrants compared with 5.58% for the natives). North Africans are also a bit more numerous to benefit from this assistance, but the gap is weak (6.46% against 5.58%). Other foreign born people are fewer to be dependent to this allocation. The nationality criterion, which we tested also, does not bring any additional explanation.

#### b. Retirements<sup>9</sup>

Among the individuals born in France, one person out of three gets a pension on average. This share is weakly more important among the North Africans, but the gap is extremely low. Europeans receive more often old pensions, which reminds one of our

8 This post includes disabled persons allowances, invalid allowances, pensions of war veterans or war victim, daily allowances for maternity (maternity hospital), for disease or accident.

This post includes the basic pensions (including reversion pensions), the early retirements (base and additional), minimum old age and the

<sup>\*30.77%</sup> of individuals born in France benefit from an old pension.

<sup>\*\*</sup>Among people who receive an old pension, 88,65% are French people.

allocations to the dependent old persons.

previous remarks, namely that the proportion of retired people among European immigrants in France is high. At the opposite, immigrants from other origins are 3 times less numerous than the natives getting old pensions in France. This is also in accordance with what we emphasized before: these populations may face some problems to gather the necessary conditions to receive such a pension.

## c. Familial assistance<sup>10</sup>

The Sub-Saharan Africans benefit more often from the familial assistance (40%), which is consistent with the previous descriptive statistics as we showed that they had more children on average than other people. As this allocation depends on the size of the family, our observation is not surprising at all. North African people also receive this assistance more often than natives (27% compared with 24%) and than other Europeans (23%).

## d. Housing benefits<sup>11</sup>

Important gaps appear concerning this assistance. Non-European migrants get 3 times more housing benefits. At the opposite, we do not observe important gap between Sub-Saharan Africans and North Africans (about 34% benefit from housing assistance).

## e. Unemployment benefits

The dependence to the unemployment benefits is more important among non-natives. Less than 12% of natives receive this assistance, compared to 13% among Europeans settled in France, more than 18% among North Africans and 20% among people from another origin (Sub-Saharan Africa and others). This result is not surprising with regard to gaps described before concerning the access to the labor market.

It is interesting to observe these results from a nationality point of view (see appendix 3). We can notice that the French by acquisition receive clearly more often unemployment benefits than natives (17.4% compared with 11%). Being a migrant thus seems to play an important role in itself and the acquisition of the French nationality does not eliminate every difference that could be linked to the geographical origins: differences in human capital (i.e: skill levels of agents), discrimination according to the place of birth (that continues to be identifiable through consonance of names / first names, skin color or an accent for example), etc. Conversely, the information on the acquisition of the local nationality or not does not bring any differences if we focus on European people: The same situation can be observed for Sub-Saharan Africans. At the opposite, we can notice an important share of North African people who receive unemployment benefits when they are nationalized: 26.85% (while the rate was lower than 20% when we considered the country of birth). Besides, we know that this population represents the larger part of requests of acquisition of nationality (Insee 2005). But clearly the acquisition of French nationality does not prevent them from professional difficulties. On the other hand, concerning people who did not acquired the French nationality, the situation in the labor market seems to be even more difficult, so that asking for a naturalization process appears to have profitable professional consequences. Nevertheless, this could actually be due to an endogenous relation insofar as, out of the traditional familial

<sup>&</sup>lt;sup>10</sup> The device integrates the basic welfare as well as the family benefits. We find the family complement, the allocation for young child, the allocation for children going back to school, the single-parent allocation, the assistant to the child care there, the educational parental allocation, the allocation of family support, the special education allocation, the allocation employment approved nursery assistant, child minder's allocation adoption, the allocation parental presence, the allocation reception young child ( PAJE), and the allocation city hall or the other social welfare body.

<sup>&</sup>lt;sup>11</sup> It corresponds to the APL (housing subsidy) and the social or family rent allocation (ALF, ALS).

way, the acquisition of the French nationality have to be decided by the public authority, under few conditions (being 18 years old at least, living regularly in France, etc.), in the top of which the discretionary appreciation of the authorities plays a crucial role. Consequently, as a successful integration into the labor market can constitute a decisive factor for the decision, the correlation between the naturalized status and the quality of the professional integration is not really surprising. Moreover, in any case, even if the current professional position were not a determinant point of decision, the ability to speak French currently remains one, so that the correlation between the naturalization and the probability to be on a job (which is itself strongly correlated with the local language ability) is still at work (Chiswick and Miller, 1995).

#### f. RMI (the French Minimum Guaranteed Income)

The *RMI* is an even much better representation of the consequences suffered when people are excluded from the labor market. For that statistics, we have deleted people under 25 years old, who are not eligible to this disposal. A sticking result may be underlined here: whereas a few number of native people and European ones receive that kind of public support (approximately 2% in each case), more than 8% of African people (North and sub-Saharan Africans mixed-up) benefit from this form of assistance. Furthermore, as for the unemployment benefits, the results obtained changing the criterion of the place of birth for this of nationality show a clear impact of the naturalization. If we skip sub-Saharan and North African migrants who became French after such a request, the rate of dependence to the *RMI* is huge for these two categories. Nevertheless, once again the dependence among French people by acquisition is up to that of French people by origin, suggesting that the acquisition of the host nationality do not resolve everything for people with difficulties to go into the labor market.

# 3. Empirical analysis

In this section, we estimate thanks to econometrics tools the correlations underlined in the previous section. We follow the same methodology as the former studies published for other countries (see introduction) studying the link between the fact of being an immigrant person and the nature of the dependence to the welfare state. Is this correlation still so heavy when taking into account intrinsic differences between people? And if the answer is yes, then how could we interpret such a strong causality? Here the literature proposes some potential explanations dealing with additional elements such as discrimination issues or different sociological behaviors.

#### 3.1. Methodology and the specification of the estimated equation

Our model of estimation is very similar to those of previous studies (Brücker and alii (2002) for Europe, Borjas and Hilton (1996) for the United States, Hansen and Lofstrom (2003) for Sweden, Castronova and al. (2001) for Germany and Barrett and McCarthy (2007, 2008) for Ireland and the United Kingdom) in so far as we could obtain the information we needed for France. Control variables then include first some information on individual personal and sociological characteristics: the gender of each person (sex), her/his belonging to a specifically age group (age), her/his matrimonial status (matr) and the number of children she/he has (nbenf). For this last variable, some comments hold. As this is the main criteria to

determine the ability and also the amount of receiving some types of aiding (particularly familial aiding), we naturally expect this variable to play the major role for this particular estimation on familial assistance. Nonetheless, we also included this information in the other equations estimated as we expect such a situation to have impacts on individual behaviors and then on the dependence to other disposals of the welfare state. The problem is that the size of the family (and so the number of children) can influence people in two opposite ways. On the one hand, having more children could deter people from taking a job because of the childlinked constraints and the possibility to apply to assistance. But on the other hand, raising more children could also create an incentive to work more (taking a full-time job for instance in spite of a part-time one) in order to provide all their needs, which would hardly be provided by the sole benefit of an assistance. Similar expectations could be made upon the role of the matrimonial status. Living alone either offers you the liberty to take a full-time job just as it imposes you to act this way to some degree because you have no other source of revenue (no spouse's wage). But on the other hand as a single household you may have a slower income and then be eligible to a complement from social assistance. Conversely, a twosome household will generally benefit from larger revenues if wages come from the two indivi duals but they can make the choice not to work both, in order to raise children. In that case, the household' global income may be sufficiently low to open rights to social assistance. The last variable we introduced to describe personal sociological and demographical characteristics, except for the place of birth which is our main concern (nais), is the place of living within French territory (hab). We hope to catch some effects of the degree of urbanization here on the situation of people. Indeed, France holds obviously different kind of places in respect with their population and job densities. Just to take an example, living in Paris gives you more chances to find a job than living in a very rural region. You may then need less from the welfare state.

Besides these sociological characteristics, we also put in the model some information on the human capital of each individual. The first one corresponds to the educational attainment (dipl), which we expect to act like a protective device against unemployment and exclusion from the labor market. The dependence to the related welfare disposals may then decrease with the number of years of education. Depending on the model estimated, we also introduced either the professional position (catsoc) and/or the situation facing the labor market (situa). Each model is run separately under the logistic method (which allows us to recover the odd ratios for the interpretations) and includes the most pertinent variables among those presented above. The last item which appears in the following equations,  $\varepsilon$ , refers to the error term and concentrates the distance between the estimated coefficients and the real ones. We present here after the six equations modeled, each representing a specific disposal of the French welfare state<sup>12</sup>.

#### (eq 1) Housing:

$$R_{\log} = a_1 + a_2(sex) + a_3(age) + a_4(nais) + a_5(nbenf) + a_6(catsoc) + a_7(situa) + a_8(hab) + \varepsilon$$

## (eq 2) Health:

$$R_{sant\acute{e}} = a_1 + a_2(sex) + a_3(age) + a_4(nais) + a_5(nbenf) + a_6(catsoc) + a_7(hab) + \varepsilon$$

## (eq 3) Family:

$$R_{fam} = a_1 + a_2(sex) + a_3(age) + a_4(nais) + a_5(nbenf) + a_6(catsoc) + a_7(hab) + a_8(matr) + \varepsilon$$

<sup>&</sup>lt;sup>12</sup> All models have been run with the SAS software.

#### (eq 4) Retirment:

$$R_{retraite} = a_1 + a_2(sex) + a_3(age) + a_4(nais) + a_5(nbenf) + a_6(dipl) + a_7(matr) + \varepsilon$$

#### (eq 5) Unemployment:

$$R_{cho} = a_1 + a_2(sex) + a_3(age) + a_4(nais) + a_5(nbenf) + a_6(dipl) + a_7(hab) + a_8(matr) + \varepsilon$$

#### (eq 6) RMI:

$$R_{RMI} = a_1 + a_2(sex) + a_3(age) + a_4(nais) + a_5(nbenf) + a_6(dipl) + a_7(hab) + a_8(matr) + \varepsilon$$

#### 3.2. The results

Table 10 coming hereafter presents the overall results coming from econometric regressions (1) to (6). Each one has been run on 17061 observations, except for the one of "RMI", which ran over fewer observations as we deleted people under 25 years old, who cannot apply for this disposal. More generally otherwise, the French legislation is very simple concerning the eligibility to social assistance: everyone who is currently living in France can apply to it, is he/she a (legal) migrant or a native person. No condition of residing duration hold.

The result of each explanatory variable is given according to a reference variable. Appendix 4 to 6 present the overall results: coefficients, standard errors of regressions and the odds ratio. To be as clear as possible, table 8 proposes a synthetic view with only the odd ratios, which allow an easy lecture of the results: a ratio up to 1 means that the concerned group of individuals experiment a higher probability to receive the considered social income with regard to the reference variable. Conversely if the odd ratio is lower than 1, the considered group is less likely to benefit from the disposal than the group of reference. The results show that, controlling for different characteristics between natives and migrants, the over representation of migrants among the beneficiaries of the welfare system is mainly confirmed for the unemployment benefits and the *RMI* (in the top of an over representation in the housing assistance mainly concerning North Africans). Migrants' dependence to the other disposals of assistance (familial benefits, health assistance and old pensions) is not significally different from the natives' one.

Let's now comment these results under more details. Everything held constant, North African immigrants appear to have about three times more chances to receive that type of assistance than the natives. They have also 1.4 times more chances to receive familial benefits, 1.8 times to receive unemployment benefits and 3.67 times to receive the *RMI*. The same results hold for populations from Sub-Saharan Africa (though we have to notice a slightly weaker Odd ratio concerning the housing assistance). These two types of population, who are also the main part of the immigration in France, reveal the most striking results considering our focus. Concerning the Europeans on the contrary, only coefficients extracted from the models of the health assistance and old pensions are significant, showing that they receive about 1.3 times more often assistance than native people.

These findings have first to be related to what our descriptive statistics underlined. The statistics indeed currently show an overrepresentation of immigrants in almost every disposal of the welfare state (and especially in the familial allocation disposal but not only). Moreover, many arguments to close the borders are held on the basis of this overrepresentation which is often assimilated to a choice to live in France under this sole

source of income. The debate on the migration question in France can then be turned into a debate on each one's way of living and moved to a cultural and religion debate. What we are showing here is that the question of the impact of each population's characteristics and sociological behaviors do not hold for every part of the welfare state and especially not for the two main (in terms of the amount of expenses) of it: the health assistance and the retirement's one. It is relatively common sense to observe an overrepresentation of high size families in the disposals which are eligible under conditions of income and also of specific size of households (such as the familial assistance) and it is also a common sense not to find a residual effect of being an immigrant when these particular characteristics are taken into account. The opposite result would have assumed that foreign born residents asked for such assistance when eligible whereas native people would not. Remember that differences in income, that would be in the disadvantage of immigrant people and then could have offered an additional explanation for the observed phenomenon, cannot be at the origin of the observed phenomenon as this allocation in France is not given under income conditions. The whole difference between the two basic results for familial assistance (the statistical one and the econometrical one) is thus due to the sole impact of disparities in the objective size of the families between French born people and immigrants. Nonetheless, that does not mean that the statistical overrepresentation of the last ones will sustain with time as sociological studies show a gradually adoption of the lifestyle of native people by immigrants, especially when the immigrants come from a lower developed country (Beine & al, 2008). In addition to this argument, facts also put a doubt on the role of the immigrants on the level of the national fecundity rate in France. If the gap between the rate of French and foreign born women persists ((it reaches 1.8 for French women and 2.6 for overall migrant women on average), the proportion of foreign women in age to have a child remains very moderated (7%). It then contradicts the idea that fecundity in France (the highest rate of the whole Europe with Ireland) would be due to migrants (Héran & Pison, 2007; Toulemon, 2004). Moreover, the distinction is also important between foreign women who keep their original nationality and naturalized women as the last ones tend more often to behave as the native women and to reduce the number of children they wish to bring up. Their fecundity rate then falls to 2.1, compared with 3.3 for foreign women and 1.8 for native women (Héran & Pison, 2007).

What our results induce however is that the main issue with the immigration question is not a sociological or even cultural one but really an economic issue. To illustrate this point, just take a look at the convergence of our statistical observations and the econometrical ones! They are very similar. Not only did we find an overdependence of immigrants (especially African people) in every disposal devoted to struggle economic exclusion (unemployment benefits, minimum income against exclusion and also housing assistance) but our empirical analysis has confirmed this conclusion even when holding personal characteristics (including human capital) constant. The residual effect we find here may represent the main problem our society face.

Table 8: Results (Odds Ratios) of the empirical estimations

| Reference<br>Var                                   | Var                                      | Housing            | Health              | Family                    | Pension              | Unemployment       | RMI                |
|--|--|--------------------|---------------------|---------------------------|----------------------|--------------------|--------------------|
| Sex <sub>hom</sub>                                 | Sex fem                                  | 0,982              | 0,683               | 0,875°                    | 1,411 <sup>a</sup>   | 0,989              | 1,223°             |
|  | $Age_{18-29}$                            | 2,191 <sup>a</sup> | 0,363 <sup>a</sup>  | 0,958                     | 0,918                | 1,257 <sup>a</sup> | 1,491 <sup>b</sup> |
| Aga  | $Age_{40-49}$                            | $0,521^{a}$        | $1,800^{a}$         | $0,498^{a}$               | 2,364 <sup>a</sup>   | $0.851^{a}$        | 0,954              |
| $Age_{30-39}$                                      | $Age_{50-59}$                            | $0,364^{a}$        | 3,207 <sup>a</sup>  | $0,157^{a}$               | 11,339 <sup>a</sup>  | $0,858^{b}$        | $0,721^{b}$        |
|  | $Age_{60+}$                              | $0,379^{a}$        | 0,952               | $0,068^{a}$               | 701,296 <sup>a</sup> | $0,177^{a}$        | -                  |
|  | Nais <sub>eur</sub>                      | 0,950              | 1,294°              | 1,046                     | 0,578 <sup>a</sup>   | 1,371 <sup>a</sup> | 0,973              |
| $Nais_{fra}$                                       | $Nais_{maghreb}$                         | 2,965 <sup>a</sup> | 0,829               | <b>1,418</b> <sup>b</sup> | $0,760^{c}$          | 1,835 <sup>a</sup> | 3,670 <sup>a</sup> |
|  | Nais <sub>afr&amp;autre</sub>            | 1,870 <sup>a</sup> | $0,670^{c}$         | 1,273                     | $0,350^{a}$          | 1,624 <sup>a</sup> | 3,765 <sup>a</sup> |
|  | $Nbenf_1$                                | 1,364 <sup>a</sup> | 1,697 <sup>a</sup>  | Var de Réf.               | 0,548 <sup>a</sup>   | 1,409 <sup>a</sup> | 1,604 <sup>a</sup> |
| $Nbenf_0$  | $Nbenf_2$                                | 2,462 <sup>a</sup> | 1,063               | 27,5 <sup>a</sup>         | $0,262^{a}$          | 1,071 <sup>a</sup> | 1,639 <sup>a</sup> |
| Noeny <sub>0</sub>                                 | $Nbenf_3$                                | 5,755              | 0,824               | 74,2 <sup>a</sup>         | $0,286^{a}$          | 1,671              | 2,843 <sup>a</sup> |
|  | $\mathit{Nbenf}_{\scriptscriptstyle 4+}$ | 10,123             | 1,484 <sup>c</sup>  | 173,6 <sup>a</sup>        | $0,307^{a}$          | $1,630^{a}$        | 4,722 <sup>a</sup> |
| Dinl   | $Dipl_{bac, cap, bep}$                   | -                  | -                   | -                         | 1,606 <sup>a</sup>   | 1,238 <sup>a</sup> | 1,888              |
| $Dipl_{\mathit{etu}}$ sup.                         | $Dipl_{bepc,0}$                          | -                  | -                   | -                         | 2,191 <sup>a</sup>   | 1,565 <sup>a</sup> | 4,350              |
|  | $Hab_{rur}$                              | 0,992              | 1,269 <sup>c</sup>  | 1,598 <sup>a</sup>        | -                    | 1,139              | 1,227              |
| $Hab_{Paris}$                                      | $Hab_{5m-20m}$                           | $1,350^{a}$        | 1,323 <sup>b</sup>  | 1,552 <sup>a</sup>        | -                    | $1,299^{a}$        | 1,401              |
| $IIuO_{Paris}$                                     | $Hab_{20m-100m}$                         | 1,865 <sup>a</sup> | 1,128               | 1,353 <sup>a</sup>        | -                    | $1,440^{a}$        | 2,451 <sup>a</sup> |
|  | $Hab_{100m-2mllion}$                     | 1,904 <sup>a</sup> | 1,428 <sup>a</sup>  | 1,611 <sup>a</sup>        | -                    | 1,105              | 2,733 <sup>a</sup> |
|  | Matr <sub>celib</sub>                    | -                  | -                   | (exclu)                   | 0,370 <sup>a</sup>   | 1,384              | 3,556 <sup>a</sup> |
| $\mathit{Matr}_{\scriptscriptstyle mari\acute{e}}$ | $Matr_{veuf}$                            | -                  | -                   | 0,920                     | $0,187^{a}$          | 0,956              | 3,322 <sup>a</sup> |
| I <b>VIUII</b> marié                               | $\mathit{Matr}_{\mathit{divorc\'e}}$     | -                  | -                   | Var de Réf.               | $0,306^{a}$          | 1,352              | 5,683 <sup>a</sup> |
|  | $\mathit{Matr}_{\mathit{mari\'e}}$       |                    |                     | 1,392                     |                      |                    |                    |
|  | $Cat\_soc_1$                             | 4,182 <sup>a</sup> | 1,826               | 1,470                     | -                    | -                  | -                  |
|  | $Cat\_soc_2$                             | 4,863 <sup>a</sup> | $2,232^{b}$         | 0,896                     | -                    | -                  | -                  |
| Cat. ann   | $Cat\_soc_4$                             | $2,440^{a}$        | 1,946 <sup>a</sup>  | 1,082                     | -                    | -                  | -                  |
| $Cat\_soc_3$                                       | $Cat\_soc_5$                             | 7,675 <sup>a</sup> | 3,485 <sup>a</sup>  | 1,032                     | -                    | -                  | -                  |
|  | $Cat\_soc_6$                             | 4,238 <sup>a</sup> | 11,093 <sup>a</sup> | 1,070                     | -                    | -                  | -                  |
|  | $Cat\_soc_7$                             | 5,736 <sup>a</sup> | $17,910^{a}$        | 1,098                     | -                    | -                  | -                  |
|  | Situa <sub>2</sub>                       | 9,625 <sup>a</sup> | -                   | -                         | -                    | -                  | -                  |
|  | Situa <sub>3</sub>                       | 5,234 <sup>a</sup> | -                   | -                         | -                    | -                  | -                  |
| Situa <sub>1</sub>                                 | Situa <sub>4</sub>                       | 4,944 <sup>a</sup> | -                   | -                         | -                    | -                  | -                  |
| $suua_1$   | Situa <sub>5</sub>                       | 1,623°             | -                   | -                         | -                    | -                  | -                  |
|  | Situa <sub>6</sub>                       | 2,349 <sup>a</sup> | -                   | -                         | -                    | -                  | -                  |
|  | Situa <sub>7</sub>                       | $6,920^{a}$        | -                   | -                         | -                    | -                  | -                  |

First of all, immigration implies a positive global contribution to the host nation if people it involves can find jobs and be complements to native people. After this first condition is reached, immigrant people can consume, pay taxes and be a profitable phenomenon at the same time for the host country and also for their country of birth through remittances and whatever transfers of physical or human capital. Conversely, not assimilating immigrant people into the local labor market leads to some difficulties among which stand those we underline here. For equal characteristics, migrants are more often represented among the beneficiaries of unemployment benefits and the minimum guaranteed income. This residual effect does appear as a real "migrant status". In top of that, difficulties that migrants cope with in the labor market are probably at the origin of the over dependence in term of the housing assistance.

Among the variables which impact the probability of receiving unemployment benefits stands for instance the role of the agent's age. The older is the agent, the best chances he faces to have succeeded in his job research. We do not observe here a well known phenomenon in France which deals with specific difficulties of the ageing workers to keep their job or to find another one when they are fired. The most basic explanation here could simply be that these people in our sample are partly taken into account by other disposals (early retirement disposals...) as a consequence of which they do not receive unemployment benefits any longer. As expected, living in Paris acts, thanks to its economic dynamics, as a protection against the unemployment. The impact of the diploma is obviously very strong. In order to propose a more common way of interpreting the results, we have merged the modalities into only 3 classes: low, medium and high level of education, the first one corresponding to a basic level of education attainment (under the level of high school), the medium one to the high school level and the last one to a university level. As expected, the highest the level is, the less chances the agent has to need unemployment benefits. Living alone multiplies the probability to need such assistance by 3.4; the lack of the spouse's network can constitute one of the potential explanations; another one may yet comes from the difficulty of finding a job for people without a spouse but with children.

Concerning finally the impact of the variable we wanted to test, we can observe that being born outside of France raises significantly the probability to need unemployment benefits. This probability for European people is increased by 30%, but with only little significance (the risk to make an error is closed to 10%). The probabilities for sub-Saharan and north-African migrants are respectively 62% and 80% more than the one for native people and these results are highly significant. This observation supports what we said in the introduction of this paper: a lot of immigrants in France are attracted by other factors than the expected wage or, if they are, they have no good information about their real chances and face strong professional difficulties when they come in. To comfort or soften these findings, we also estimated this model with the criterion of the nationality instead of the one of the place of birth. We expected to find disparities between those who had been naturalized and those who had not because of a potential interpretation of the naturalization as a signal of social integration that would make easier the entry into the labor market. No striking result appears however, though some peculiarities need to be emphasized (results are presented in appendix 7). Relatively to the French born, French naturalized people face a risk of unemployment 1.7 times as higher. Nationality then doesn't solve everything! Conversely, keeping one's nationality does not seem to bring many additional difficulties for European nationalities or even sub-Saharan ones, but it does mean that things will get worse for north-African nationalities (the risk is near two times as high as the one for the natives).

If we remind that all these conclusions are made under the control for disparities in educational attainment especially, we have to turn to other explanations for these phenomena emphasized than the simplest one which would throw the responsibility of such professional differences on divergences in human capital. An alternative explanation can be that the skills acquired by a foreigner outside may not be transferable to another country (Hansen & Lofstrom, 2008). But the majority of our foreign born sample is few educated so that this cannot be the main explanation for our observations. The literature has pointed up two other interpretations for these results. One focused on discrimination effects. Once the worker is not a "French" person (or does not look like a French person with European style), his qualification may not be considered as an advantage any more. The second one refers to the basic economics of labour to put the light on potential different behaviours between each type of population. Here the point would be that some people could make a different choice between the time allocated to labour and the time allocated to leisure and more generally to non-professional activities. The effectiveness of a welfare state could encourage the second choice. The question here is to arbitrate if this choice is more probable thanks to the huge gap between the standard of living of the source country and the host country 13 (Hansen & Lofstrom, 2003, 2009; Gourévitch, 2007), or if such a choice may on the contrary be less likely as migrant people often aim at saving money to remit to their source country. Unfortunately, we are not able to discriminate between both explanations; just like the previous studies focused on the United States or European countries, we lack of data to do that. One of the potential factors that would have informed us about a potential discrimination is the ability to speak the local language as this ability often favours the achieving of a job (see Chiswick & Miller, 1995 for an illustration). Nevertheless, several papers has already pointed that this variable is far from sufficient (as the language ability is not the only talent required by employers) and could even be false (as this ability could also encourage the agent not to work because he better knows how to apply for other sources of income, Barrett & McCarthy, 2008). So far as we are concerned, we do not have the information on this ability. The same results and main explanations hold true for the estimation on the minimum guaranteed income (RMI). Here again the North African born face bigger probabilities to be in a professionally bad situation and to need this assistance (the risk is 3.7 times as high as for the natives).

# 4. Conclusion and migration policy discussion

The main aim of this paper was to clarify the links between the welfare state in France and the related dependence for native and immigrant people. We do not concentrate on the question of the attraction of such a welfare system on migration in itself as we lack appropriated data. But we focused on determining if the statistical dependence of immigrants to almost every disposal of the welfare state was robust to an econometrical analysis that is an analysis which would make abstraction of the differences in observed socio-demographical characteristics of native versus foreign born agents. The results clearly show that, holding these attributes constant, the overrepresentation of immigrants in each disposal disappears except for those related to special difficulties in the labor market (income difficulties) for which a residual effect remains. Two main explanations can be proposed for these results. One refers to discrimination effects that often keep foreign people out of the labor market or recruit them only on bad jobs (referring to the literature on the dual labor market). The other one questions the choices made by both types of population concerning their willingness to work or to apply to public assistance. This last explanation is more closed with the initial

<sup>&</sup>lt;sup>13</sup> The amounts received from public assistance are not so large but could seem to be sufficient for originally poor people.

concept of a welfare magnet effect (Borjas, 1999). Notice that, even if the existence of a socalled welfare magnet being the reason to induce more immigration has been refuted by Kahanec & Zimmermann (2008) for Europe, both explanations could sometimes merge. Discrimination can act as a discouraging factor to pursue an intensive job search and then conversely encourage discriminated people to settle for the second best solution, namely the welfare state dependence.

What is mainly striking in such a study is that the bad issues on migrations are located exclusively in labor market outcomes. The weight of immigration on the two main parts of the French welfare state (retirement pensions and the health system), whose current huge deficits imply severe debates in France, is not demonstrated. On the contrary, immigrants are much less concerned by these disposals, whereas they compose the main proportion of the beneficiaries of unemployment benefits, minimum guaranteed income and also housing allocations. This reveals their bad position on the labor market. Facing this problem, either we think that the main reason comes from objective characteristics of people (such as the skill level and so on) and we try to select better the persons who are allowed to enter. Or we consider that this is a question of behavioral attitudes facing the labor market and we take more restrictive conditions to be eligible to this type of public assistance. This last solution consists in a complete reappraisal of the welfare state in itself and could also destroy the efficiency of such assistance to allow workers and employers to find themselves after a real job search and to match as well as possible. Conversely, the first solution is the one which has been decided in France in July 2006. Nevertheless, recent papers from other countries which had previously decided such policies catch the doubt on the efficiency of this type of disposal (Borjas, 2001; Jasso & Rosenzweig, 2008). Firstly it could bring us to a cancellation of the main streams of entries (for France that would mean less immigrants from North Africa mainly) without inducing more flows from people and/or countries with the desired abilities and characteristics. And yet, a global decrease in migration inflows would not be a good thing for us as a growing number of papers show (Borgy & Chojnicki, 2010). The later proposals on migration policies recommend instead of a quantitative migration policy a softening of the conditions to enter conditionally to prove an adequacy between the host labor market and one's abilities and also to encourage temporary migrations. This last disposal is expected to rationalize naturally the inflow (as people will know they would be able to enter the borders again without institutional difficulties, they won't stay more longer than they expected at the beginning of their project, (see Noiriel 2006b and Wihtol de Wenden, 2009)) and at the same time to favor more exchanges (capital and human capital exchanges and remittances) with the source countries so as to offer it some additional resources to develop. Moreover, these proposals can be associated with a stronger effort of international aiding to developing countries for more efficiency, that is actually simply honoring the commitments of the millennium goals (United Nations, 2005; Gubert & Giordano, 2006).

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**Appendix**Appendix 1: type of household according to the geographical origin

|                             | Single<br>person | Single-parent<br>family | Couple<br>without<br>child | Couple with at least 1 child | Other | Total |
|-----------------------------|------------------|-------------------------|----------------------------|------------------------------|-------|-------|
| Born in France:             |                  |                         |                            |                              |       |       |
| - Number                    | 2444             | 747                     | 5185                       | 5940                         | 631   | 14947 |
| (% among natives)           | 16,35            | 5,00                    | 34,69                      | 39,74                        | 4,22  | 100%  |
| Total of migrants:          |                  |                         |                            |                              |       |       |
| - Number                    | 262              | 124                     | 605                        | 960                          | 163   | 2114  |
| (% among migrants)          | 12,33            | 5,85                    | 28,34                      | 45,6                         | 7,88  | 100%  |
| With:                       |                  |                         |                            |                              |       |       |
| Born in UE:                 |                  |                         |                            |                              |       |       |
| - Number                    | 84               | 32                      | 273                        | 300                          | 40    | 729   |
| (% among Europeans)         | 11,52            | 4,39                    | 37,45                      | 41,15                        | 5,49  | 100%  |
| Born in Maghreb:            |                  |                         |                            |                              |       |       |
| - Number                    | 107              | 55                      | 195                        | 338                          | 48    | 743   |
| (% among North African)     | 14,40            | 7,40                    | 26,24                      | 45,49                        | 6,46  | 100%  |
| Born in Africa or other:    |                  |                         |                            |                              |       |       |
| - Number                    | 71               | 37                      | 137                        | 322                          | 75    | 642   |
| (% among African and other) | 11,06            | 5,76                    | 21,34                      | 50,16                        | 11,68 | 100%  |

Appendix 2: number of individuals in the household

|         |        | 1 person | 2 persons | 3 persons | 4 persons | 5 persons<br>and + | Total  |
|---------|--------|----------|-----------|-----------|-----------|--------------------|--------|
| Born in | Number | 2432     | 5764      | 2617      | 2681      | 1399               | 14 893 |
| France  | %      | 16,33    | 38,70     | 17,57     | 18,00     | 9,39               | 100%   |
| Born    | Number | 274      | 712       | 370       | 396       | 416                | 2168   |
| abroad  | %      | 12,64    | 32,84     | 17,07     | 18,27     | 19,19              | 100%   |

Appendix 3: unemployment benefits and RMI by nationality

| 170000000000000000000000000000000000000 | -proj × 0 0 0 111/22 |   |                   | · j - 1.00 - 0 - 1.00 - |  |                            |        |  |
|---|----------------------|---|-------------------|--|--|----------------------------|--------|--|
|   | French<br>born       | French by<br>acquisition<br>of the<br>nationality | Other<br>European | Algerian,<br>Moroccan<br>or<br>Tunisian  | Other African people and other nationalities | Stateless<br>and<br>others | Total  |  |
| Unemployment                            |                      |   |                   |  | ilationalities                               |                            |        |  |
| benefits                                | 1798                 | 126   | 59                | 69   | 20   | 40                         | 2112   |  |
| - Number                                | 11,70                | 17,45   | 14,29             | 26,85  | 18,87  | 20,30                      |        |  |
| - Column %                              | 85,13                | 5,97  | 2,79              | 3,27   | 0,95   | 1,89                       |        |  |
| - Line %                                |                      |   |                   |  |  |                            |        |  |
| RMI                                     |                      |   |                   |  |  |                            |        |  |
| - Number                                | 354                  | 41  | 8                 | 35   | 19   | 17                         | 474    |  |
| - Column %                              | 2,30                 | 5,68  | 1,94              | 13,62  | 17,92  | 8,63                       |        |  |
| - Line %                                | 74,68                | 8,65  | 1,69              | 7,38   | 4,01   | 3,59                       |        |  |
| Total                                   | 14947                | 729   | 743               | 642  |  |                            | 17060* |  |

Appendix 4: Results of the estimation model for housing benefits and health benefits

|                       | Dep. Var.<br>Expl. Var.       | Housing a                   | llocations | Illness allocations     |           |  |
|-----------------------|-------------------------------|-----------------------------|------------|-------------------------|-----------|--|
| ref.                  | 7                             | Coef.                       | Odd ratio  | Coef.                   | Odd ratio |  |
| Cov                   | Sex fem                       | -0,019                      | 0,982      | -0,381                  | 0,683     |  |
| $Sex_{hom}$           |                               | (0,053)                     |            | (0,073)                 |           |  |
|                       | $Age_{18-29}$                 | 0,784***                    | 2,191      | -1,012***               | 0,363     |  |
|                       |                               | (0,081)                     |            | (0,220)                 |           |  |
|                       | $Age_{40-49}$                 | -0,652***                   | 0,521      | 0,588***                | 1,800     |  |
| $Age_{30-39}$         |                               | (0,070)                     |            | (0,132)                 |           |  |
| 118030-39             | $Age_{50-59}$                 | -1,011***                   | 0,364      | 1,165***                | 3,207     |  |
|                       |                               | (0,092)                     | 0.050      | (0,134)                 | 0.050     |  |
|                       | $Age_{60+}$                   | -0,971***                   | 0,379      | -0,049                  | 0,952     |  |
|                       |                               | (0,147)                     | 0.050      | (0,163)                 | 4.004     |  |
|                       | $Nais_{eur}$                  | -0,052                      | 0,950      | 0,257*                  | 1,294     |  |
|                       |                               | (0,131)                     | 2.065      | (0,145)                 | 0.020     |  |
| $Nais_{fra}$          | $Nais_{maghreb}$              | 1,087***                    | 2,965      | -0,188                  | 0,829     |  |
| <i>y</i>              | 37 .                          | (0,101)                     | 1.070      | (0,163)                 | 0.670     |  |
|                       | Nais <sub>afr&amp;autre</sub> | 0,626***                    | 1,870      | -0,400*                 | 0,670     |  |
|                       | ) TI C                        | (0,108)<br>0,310***         | 1,364      | (0,221)<br>0,529***     | 1 607     |  |
|                       | $Nbenf_1$                     |                             | 1,304      |                         | 1,697     |  |
|                       | NT C                          | (0,075)<br><b>0,901**</b> * | 2,462      | (0,092)<br><b>0,061</b> | 1,063     |  |
|                       | $Nbenf_2$                     | (0,901)                     | 2,402      | (0,122)                 | 1,003     |  |
| $Nbenf_0$             | N/h and                       | 1,750                       | 5,755      | -0,194                  | 0,824     |  |
|                       | $Nbenf_3$                     | (0,091)                     | 3,733      | (0,178)                 | 0,024     |  |
|                       | $Nbenf_{4+}$                  | 2,315                       | 10,123     | 0,394*                  | 1,484     |  |
|                       | Noeng 4+                      | (0,132)                     | 10,123     | (0,215)                 | 1,101     |  |
|                       | Cat_soc <sub>1</sub>          | 1,431***                    | 4,182      | 0,602                   | 1,826     |  |
|                       | $cat\_soc_1$                  | (0,272)                     | 1,102      | (0,417)                 | 1,020     |  |
|                       | $Cat\_soc_2$                  | 1,582***                    | 4,863      | 0,803\$**               | 2,232     |  |
|                       | $cai\_soc_2$                  | (0,195)                     | 1,000      | (0,311)                 | _,        |  |
|                       | $Cat\_soc_4$                  | 0,892***                    | 2,440      | 0,666***                | 1,946     |  |
| _                     | Can _5004                     | (0,153)                     | ,          | (0,239)                 | ,         |  |
| $Cat\_soc_3$          | $Cat\_soc_5$                  | 2,038***                    | 7,675      | 1,249***                | 3,485     |  |
|                       | _5005                         | (0,140)                     |            | (0,216)                 |           |  |
|                       | $Cat\_soc_6$                  | 1,444***                    | 4,238      | 2,406***                | 11,093    |  |
|                       | _~~6                          | (0,297)                     |            | (0,225)                 |           |  |
|                       | $Cat soc_7$                   | 1,747***                    | 5,736      | 2,886***                | 17,910    |  |
|                       |                               | (0,265)                     |            | (0,223)                 | ·<br>     |  |
|                       | Situa <sub>2</sub>            | 2,264***                    | 9,625      | -                       |           |  |
|                       | 2                             | (0,391)                     |            |                         |           |  |
|                       | Situa <sub>3</sub>            | 1,655***                    | 5,234      | -                       | -         |  |
|                       | ,                             | (0,248)                     |            |                         |           |  |
|                       | $Situa_4$                     | 1,598***                    | 4,944      | -                       | -         |  |
| Cit~                  | *                             | (0,084)                     |            |                         |           |  |
| $Situa_1$             | Situa <sub>5</sub>            | 0,484*                      | 1,623      | -                       | -         |  |
|                       | J                             | (0,285)                     |            |                         |           |  |
|                       | Situa <sub>6</sub>            | 0,854***                    | 2,349      | -                       | -         |  |
|                       | •                             | (0,248)                     |            |                         |           |  |
|                       | Situa <sub>7</sub>            | 1,934***                    | 6,920      | -                       | -         |  |
|                       | ,<br>                         | (0,268)                     |            |                         |           |  |
|                       | $Hab_{rur}$                   | -0,008                      | 0,992      | 0,239*                  | 1,269     |  |
| $Hab_{Paris}$         |                               | (0,092)                     |            | (0,126)                 |           |  |
| 11uO <sub>Paris</sub> | $Hab_{5m-20m}$                | 0,301***                    | 1,350      | 0,280**                 | 1,323     |  |
|                       | =                             | (0,095)                     |            | (0,132)                 |           |  |

| $Hab_{20m-100m}$     | 0,623*** | 1,865 | 0,120     | 1,128 |
|----------------------|----------|-------|-----------|-------|
| 2011 10011           | (0,096)  |       | (0,146)   |       |
| $Hab_{100m-2mllion}$ | 0,644*** | 1,904 | 0,356***  | 1,428 |
| Tour Zimion          | (0,084)  |       | (0,123)   |       |
| Const.               | -4,326   |       | -5,043*** |       |
|                      | (0,163)  |       | (0,254)   |       |

Appendix 5: Results of the estimation model for familial assistance and old pensions

|                         | Dep.Var.<br>Expl Var          | Familial Allocations |           | Old pensions |           |
|-------------------------|-------------------------------|----------------------|-----------|--------------|-----------|
| Ref                     |                               | Coef.                | Odd ratio | Coef.        | Odd ratio |
| C                       | Sex <sub>fem</sub>            | -0,133*              | 0,875     | 0,344***     | 1,411     |
| $Sex_{hom}$             | jem                           | (0,069)              |           | (0,067)      |           |
| $Age_{30-39}$           | $Age_{18-29}$                 | -0,042               | 0,958     | -0,085       | 0,918     |
|                         |                               | (0,121)              |           | (0,272)      |           |
|                         | $Age_{40-49}$                 | -0,697***            | 0,498     | 0,861***     | 2,364     |
|                         | 8 40-49                       | (0,078)              |           | (0,193)      |           |
|                         | $Age_{50-59}$                 | -1,850***            | 0,157     | 2,428***     | 11,339    |
|                         | 30 37                         | (0,106)              |           | (0,178)      |           |
|                         | $Age_{60+}$                   | -2,690***            | 0,068     | 6,553***     | 701,296   |
|                         |                               | (0,270)              |           | (0,190)      |           |
|                         | $Nais_{eur}$                  | 0,045                | 1,046     | -0,547***    | 0,578     |
|                         |                               | (0,161)              |           | (0,151)      |           |
| $Nais_{fra}$            | $Nais_{maghreb}$              | 0,349**              | 1,418     | -0,275*      | 0,760     |
| 1 vans fra              |                               | (0,154)              |           | (0,155)      |           |
|                         | Nais <sub>afr&amp;autre</sub> | 0,242                | 1,273     | -1,051***    | 0,350     |
|                         |                               | (0,151)              |           | (0,221)      |           |
|                         | $Nbenf_1$                     | Ref                  |           | -0,602***    | 0,548     |
| Nbenf₀                  |                               |                      |           | (0,085)      |           |
| (ou                     | $Nbenf_2$                     | 3,314***             | 27,492    | -1,338***    | 0,262     |
| $Nbenf_1$               |                               | (0,078)              |           | (0,132)      |           |
| pour le                 | $Nbenf_3$                     | 4,307***             | 74,222    | -1,253***    | 0,286     |
| modèle                  |                               | (0,115)              |           | (0,199)      |           |
| $R_{fam}$ )#            | $Nbenf_{4+}$                  | 5,157***             | 173,620   | -1,181***    | 0,307     |
|                         |                               | (0,234)              |           | (0,304)      |           |
|                         | $Cat\_soc_1$                  | 0,386                | 1,470     | /            |           |
|                         | _ ,                           | (0,251)              |           |              |           |
|                         | $Cat\_soc_2$                  | -0,109               | 0,896     | /            |           |
|                         | _ 2                           | (0,179)              |           |              |           |
|                         | $Cat\_soc_4$                  | 0,079                | 1,082     | /            |           |
| <i>a</i> .              |                               | (0,112)              |           |              |           |
| $Cat\_soc_3$            | $Cat\_soc_5$                  | 0,032                | 1,032     | /            |           |
|                         | _ 3                           | (0,102)              |           |              |           |
|                         | $Cat\_soc_6$                  | 0,068                | 1,070     | /            |           |
|                         | 6                             | (0,254)              |           | •            |           |
|                         | $Cat\_soc_7$                  | 0,094                | 1,098     | /            |           |
|                         | 2007                          | (0,142)              | ,         | ,            |           |
|                         | matr <sub>célib</sub>         | Exclus               |           | -0,995***    | 0,370     |
| matr <sub>marié</sub>   |                               | /                    |           | (0,123)      | •         |
| (ou                     | matr <sub>veuf</sub>          | 0,330                | 0,920     | -1,677***    | 0,187     |
| matr <sub>divorcé</sub> |                               | (0,258)              |           | (0,118)      |           |
| pour le                 | matri <sub>divorcé</sub>      | Ref                  |           | -1,184***    | 0,306     |
| modèle                  |                               |                      |           | (0,125)      |           |
| R <sub>fam</sub> )##    | matr <sub>marié</sub>         | -0,083               | 1,392     | Ref          |           |
|                         |                               | (0,078)              | 1 500     | ,            |           |
|                         | $Hab_{rur}$                   | 0,469***             | 1,598     | /            |           |
| $Hab_{Paris}$           |                               | (0,106)              | 4 550     | ,            |           |
|                         | $Hab_{5m-20m}$                | 0,439***             | 1,552     | /            |           |
|                         |                               | (0,114)              | 4.050     | ,            |           |
| ruris                   | $Hab_{20m-100m}$              | 0,302***             | 1,353     | /            |           |
|                         |                               | (0,125)              | 1 (11     | ,            |           |
|                         | $Hab_{100m-2mllion}$          | 0,477***             | 1,611     | /            |           |
| ···                     | D'                            | (0,104)              |           | 0.47.4444    | 4 606     |
| )ip <sub>etu sup</sub>  | _ Dip <sub>bac,cap,bep</sub>  | /                    |           | 0,474***     | 1,606     |

| Dip <sub>bepc,0</sub> | /       | (0,101)<br>0,785***<br>(0,100) | 2,191 |
|-----------------------|---------|--------------------------------|-------|
| Const.                | -1,841  | -3,901                         |       |
|                       | (0,143) | (0,195)                        |       |
| Nber Obs.             | 8208    | 17061                          |       |

Appendix 6: Results of the estimation model for unemployment benefits and the RMI

|                          | Dep Var.                        | Unempl. Beneifts        |           | RMI                        |           |
|--------------------------|---------------------------------|-------------------------|-----------|----------------------------|-----------|
| Ref                      | Expl. Var.                      | Coef.                   | Odd ratio | Coef.                      | Odd ratio |
|                          | Sex <sub>fem</sub>              | -0,011                  | 0,989     | 0,202*                     | 1,223     |
| $Sex_{hom}$              | z • · · jem                     | (0,048)                 | 3,131     | (0,111)                    | _,        |
|                          | $Age_{18-29}$ #                 | 0,229***                | 1,257     | 0,400**                    | 1,491     |
|                          |                                 | (0,079)                 |           | (0,177)                    |           |
|                          | $Age_{40-49}$                   | -0,161***               | 0,851     | -0,047                     | 0,954     |
| 100                      |                                 | (0,068)                 |           | (0,135)                    |           |
| $Age_{30-39}$            | $Age_{50-59}$                   | -0,153**                | 0,858     | -0,327**                   | 0,721     |
|                          |                                 | (0,078)                 | 0.4       | (0,165)                    |           |
|                          | $Age_{60+}$                     | -1,732***               | 0,177     | /                          |           |
|                          |                                 | (0,115)                 | 4.054     | 0.000                      | 0.050     |
|                          | Nais <sub>eur</sub>             | 0,316***                | 1,371     | -0,028                     | 0,973     |
|                          | 37 .                            | (0,116)<br>0,607***     | 1 025     | (0,319)                    | 2 (70     |
| $Nais_{fra}$             | $Nais_{maghreb}$                | ,                       | 1,835     | 1,310***                   | 3,670     |
|                          | Maia                            | (0,104)<br>0,485***     | 1,624     | (0,173)<br>1,326***        | 3,765     |
|                          | Nais <sub>afr&amp;autre</sub>   | (0,108)                 | 1,024     | (0,180)                    | 3,703     |
|                          | Nbenf <sub>1</sub>              | 0,343***                | 1,409     | 0,472***                   | 1,604     |
|                          | roberty <sub>1</sub>            | (0,065)                 | 1,107     | (0,152)                    | 1,001     |
|                          | Nbenf <sub>2</sub>              | 0,068                   | 1,071     | 0,494***                   | 1,639     |
| NT 0                     | rvocity 2                       | (0,075)                 | _,        | (0,160)                    | _,,,,,    |
| $Nbenf_0$                | $Nbenf_3$                       | 0,513***                | 1,671     | 1,045***                   | 2,843     |
|                          | <i>y</i> 3                      | (0,090)                 |           | (0,182)                    |           |
|                          | $Nbenf_{4+}$                    | 0,488***                | 1,630     | 1,552***                   | 4,722     |
|                          |                                 | (0,138)                 |           | (0,215)                    |           |
|                          | $Dipl_{bac, cap, bep}$          | 0,213***                | 1,238     | 0,636***                   | 1,888     |
| Dipl <sub>etu sup.</sub> |                                 | (0,062)                 |           | (0,167)                    |           |
| 1 eta sup.               | $Dipl_{bepc,0}$                 | 0,448***                | 1,565     | 1,470***                   | 4,350     |
|                          |                                 | (0,069)                 |           | (0,166)                    |           |
|                          | $Hab_{rur}$                     | 0,130                   | 1,139     | 0,205                      | 1,227     |
|                          |                                 | (0,082)                 | 1 200     | (0,210)                    | 1 401     |
| $H_{ab}$                 | $Hab_{5m-20m}$                  | 0,262***                | 1,299     | 0,337                      | 1,401     |
| $Hab_{Paris}$            | 11L                             | (0,086)<br>0,364***     | 1,440     | (0,215)<br><b>0,896***</b> | 2,451     |
|                          | $Hab_{20m-100m}$                |                         | 1,740     |                            | 2,431     |
|                          | Hah                             | (0,089)<br><b>0,100</b> | 1,105     | (0,199)<br>1,005***        | 2,733     |
|                          | $Hab_{100m-2mllion}$            | (0,078)                 | 1,100     | (0,176)                    | 2,733     |
|                          | Matr <sub>celib</sub>           | 0,325***                | 1,384     | 1,269***                   | 3,556     |
|                          | celib                           | (0,065)                 | ,         | (0,139)                    | -,        |
|                          | $\mathit{Matr}_{\mathit{veuf}}$ | -0,046                  | 0,956     | 1,201***                   | 3,322     |
| $Matr_{mari\acute{e}}$   | veuj                            | (0,149)                 | - ,       | (0,308)                    | -,        |
| ı <b>vıcıı</b> marié     | Matr <sub>divorcé</sub>         | 0,301***                | 1,352     | 1,737***                   | 5,683     |
|                          | aivorce                         | (0,088)                 |           | (0,150)                    | •         |
|                          | Const.                          | -2,362***               | -         | -6,163***                  | -         |
|                          |                                 | (0,105)                 |           | (0,267)                    |           |
|                          | Nber Obs.                       | 17061                   | -         | 11866                      | -         |

Appendix 7: Results of the estimation model for unemployment benefits by nationality

|                                    | Dep.var.                             | Probability                 |           |  |  |
|------------------------------------|--------------------------------------|-----------------------------|-----------|--|--|
| Expl.Var.                          |                                      | Probability                 |           |  |  |
| Ref.                               | •                                    | Coef.                       | Odd ratio |  |  |
| Sex <sub>hom</sub>                 | Sex fem                              | -0,008                      | 0,992     |  |  |
| hom                                |                                      | (0,048)                     |           |  |  |
|                                    | $Age_{18-29}$ #                      | 0,223***                    | 1,250     |  |  |
|                                    |                                      | (0,079)                     | 0.066     |  |  |
|                                    | $Age_{40-49}$                        | -0,144**<br>(0,068)         | 0,866     |  |  |
| $Age_{30-39}$                      | $Age_{50-59}$                        | -0,137*                     | 0,872     |  |  |
|                                    | $Age_{50-59}$                        | (0,078)                     | 0,072     |  |  |
|                                    | $Age_{60+}$                          | -1,713***                   | 0,180     |  |  |
|                                    | 118060+                              | (0,115)                     | 3,233     |  |  |
|                                    | Natio <sub>naturalisé</sub>          | 0,524***                    | 1,689     |  |  |
|                                    |                                      | (0,107)                     |           |  |  |
|                                    | $Natio_{\mathit{UE}}$                | 0,271*                      | 1,312     |  |  |
| $Natio_{françai}$                  | Nation                               | (0,148)<br>0,812***         | 2,252     |  |  |
| S                                  | $Natio_{Maghreb}$                    | (0.152)                     | 2,232     |  |  |
| naiss                              | Natio <sub>autre +Afriq</sub>        | 0,246                       | 1,279     |  |  |
|                                    |                                      | (0,257)                     |           |  |  |
|                                    | Natio <sub>apatride</sub>            | 0,437***                    | 1,548     |  |  |
|                                    | ) II                                 | (0,186)                     | 1 400     |  |  |
|                                    | $Nbenf_1$                            | 0,342***                    | 1,408     |  |  |
|                                    | Manuel                               | (0,065)<br><b>0,064</b>     | 1,066     |  |  |
|                                    | $Nbenf_2$                            | (0,075)                     | 1,000     |  |  |
| $Nbenf_0$                          | $Nbenf_3$                            | 0,507***                    | 1,660     |  |  |
|                                    | 1100193                              | (0,091)                     | ,         |  |  |
|                                    | $Nbenf_{4+}$                         | 0,491***                    | 1,633     |  |  |
|                                    | V 4+                                 | (0,138)                     |           |  |  |
|                                    | $Dipl_{bac, cap, bep}$               | 0,202***                    | 1,224     |  |  |
| $Dipl_{\mathit{etu}}$ sup.         |                                      | (0,062)                     |           |  |  |
| x eta sup.                         | $Dipl_{bepc,0}$                      | 0,430***                    | 1,538     |  |  |
|                                    |                                      | (0,069)                     | 4.405     |  |  |
|                                    | $Hab_{rur}$                          | 0,120                       | 1,127     |  |  |
|                                    | 111.                                 | (0,082)<br><b>0,247**</b> * | 1,280     |  |  |
| $Hab_{Paris}$                      | $Hab_{5m-20m}$                       | (0,086)                     | 1,200     |  |  |
| Paris                              | $Hab_{20m-100m}$                     | 0,359***                    | 1,432     |  |  |
|                                    | $1100_{20m-100m}$                    | (0,089)                     | _,        |  |  |
|                                    | $Hab_{100m-2mllion}$                 | 0,093                       | 1,097     |  |  |
|                                    |                                      | (0,078)                     |           |  |  |
| . <u></u>                          | Matr <sub>celib</sub>                | 0,329***                    | 1,389     |  |  |
|                                    |                                      | (0,065)                     |           |  |  |
|                                    | $Matr_{veuf}$                        | -0,051                      | 0,950     |  |  |
| $\mathit{Matr}_{\mathit{mari\'e}}$ |                                      | (0,149)                     |           |  |  |
|                                    | $\mathit{Matr}_{\mathit{divorc\'e}}$ | 0,303***                    | 1,354     |  |  |
|                                    |                                      | (0,088)                     |           |  |  |
|                                    | Const.                               | -2,343***                   | -         |  |  |
|                                    | N1 01                                | (0,105)                     |           |  |  |
|                                    | Nber Obs.                            | 17061                       | <u>-</u>  |  |  |