Ethnic differences in the risk of unemployment: does the last name matter?

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Abstract:

The risk of unemployment in France is higher for second–generation North African immigrants than it is for second generations from other ethnic origins (Algan *et al.*, 2010; Lefranc A., 2008; Meurs & Pailhé, 2010; Silberman *et al.,* 2007). The extent to which employer prejudice is responsible for this poor labor market outcome is subject to debate. The situation testing study conducted by Duguet *et al*. (2007) tends to confirm the hypothesis of hiring discrimination, but on a limited scale. This methodology relies on the hypothesis that employers deduce candidates' origins from their names. We propose an alternative way to test the role of the (father's) surname in the hiring process. We compare the risk of unemployment of natives and three second-generation sub-groups: people born to two immigrant parents, those born to an immigrant father and a native mother – so the surname can be used as a marker of their origin - and those born to a native father and an immigrant mother – so the surname looks "native". Using the French employment surveys 2006-2008, we estimate the probability to be unemployed, controlling for human capital variables, region and parents' social characteristics. Our preliminary results indicate that second-generation North Africans born to mixed parents have a higher risk of unemployment if they have an immigrant father than if they have an immigrant mother. This difference in the unemployment rate according to which parent has immigrated is not observed in the case of second-generation South Europeans. We conclude that statistical discrimination probably plays a role in the high rate of unemployment of second-generation North Africans on the French labor market.

Introduction

A growing number of research studies indicate that the second generation of immigrants – born and raised in the host country of their immigrant parents – experiences a higher rate of unemployment than natives. This is observed in Europe (Heath *et al.*, 2008, Algan *et al.*, 2010) as well as in the USA (Slack & Jensen, 2007). Moreover, the risk of unemployment is not evenly distributed across origins and some ethnic groups face more difficulties than others. This is the case for Hispanics in the USA, Turks in Germany (Algan *et al.*, 2010) and Bangladeshis and Pakistanis in Britain (Heath, 1999; Algan *et al.*, 2010). In the French case, the population at risk is that of second-generation North Africans, while second-generation South Europeans have a similar rate of unemployment as natives, defined as being born in France to French parents (Algan *et al.*, 2010; Lefranc, forthcoming; Meurs & Pailhé, forthcoming; Aeberhard *et al.*, 2010).

These stylized facts have contributed to a change in the analysis of the economic assimilation of immigrants. According to the "classical" theory, this is a straightforward process which leads in two or three generations to equality with the natives on the labor market. Now the model of segmented assimilation (Portes & Zhou, 1993) is often preferred as a framework to explain the differences in economic performance between different origins. According to this model, there is not a unique path leading to integration into the mainstream population. Some ethnic groups may keep their cultural identity through generations and achieve either positive or negative economic outcomes. For instance, immigrants from Portugal who formed the biggest wave of immigrants to France in the sixties are characterized by their economic success and strong sense of "peoplehood" (Domingues Dos Santos, 2005). On the contrary, African and North African ethnic groups correspond to a downward assimilation in France (Alba *et al*., 2007). These differences may come from socioeconomic differences as well as from the prejudices of natives against certain ethnic groups, i.e. discrimination.

This article explores the barriers to entry into the French labor market faced by different second–generation ethnic groups, using the group of those born to "mixed" couples as a case study. A growing share of the current second generation of immigrants is born to mixed couples and consequently belongs to two groups of origins. This results from the massive waves of post-war economic immigration, which has led to more frequent intermarriage. This "mixed" second generation is generally more successful on the labor market than the "non mixed" second generation (Meurs *et al.*, 2006). This can be due to a selection process of their parents: intermarried immigrants are generally more educated than other immigrants and have acquired efficient networks through their marriage with a native (Meng & Meurs, 2009; Furtado, 2010). As a result, intermarried immigrants have higher socioeconomic status than their immigrant counterparts and can transmit some of these advantages to their children. An alternative hypothesis is that the mixed second generation experiences lower hiring discrimination because their ethnic origins are less observable by employers.

To determine the relative merits of these two hypotheses, we compare the risk of unemployment of natives and three second-generation sub-groups: people born to two immigrant parents, people born to an immigrant father and a native mother – so the surname can be used as a marker of their origin - and people born to a native father and an immigrant mother – so the surname appears "native"[1]. For people in this last case, when they apply for

[1] In France the surname is inherited from the father.

jobs, their resumes are not easily distinguishable from those of people born to native parents, unlike those of people born to a native mother and an immigrant father. This approach is close in spirit to situation testing based on the hypothesis that employers deduce the ethnic origins candidates from their names (cf. Bertrand & Mullainathan, 2004). Previous studies on the effect of North-African sounding names on the French labor market have been conducted by Duguet *et al*. (2007) and concluded to the existence of employer prejudice against this group. Situation testing studies have the advantage of using resumes that are identical in everything but name, and the disadvantage of being limited to the first step of the hiring process and a limited number of firms. Our study has the opposite advantage and disadvantage. We use a national-wide data set representative of the whole economy and we study the final outcome (to be employed or not). But the average characteristics of the two groups (born to an immigrant father or born to an immigrant mother) are not exactly the same, so we have to estimate a risk of unemployment net of composition effects.

Our results indicate that a mixed second-generation North African born to an immigrant father has a higher net risk of unemployment than one born to an immigrant mother. This difference in unemployment risk is not observed within the mixed second-generation immigrants from Southern Europe. We conclude that these results are consistent with the hypothesis of a strong hiring discrimination against second-generation North Africans on the French labor market.

Data and methodology are explained in the first part of this paper. Section 2 describes the differences between mixed and unmixed second generations in terms of family background and education. Section 3 presents the results of the logistic regressions on the risk of unemployment according to detailed origins. Concluding remarks are given in the last section.

Data and Methodology

The data set we use here is composed of three pooled years (2006, 2007 and 2008) from the French Labour Force Survey. This data set provides precise information on the individual position in the labor market as well as individual characteristics (age, sex, education, etc.) and family background. As regards family origin, this data set is one of the few French statistical sources which provides information on the parents' nationality and country of birth[2]. These variables have been collected only since 2006[3].

Our sample is limited to active people, aged 16 to 60 years – employed or unemployed[4]. Immigrants, those in education, homemakers and retired are excluded. As regards origin, we have built three categories:
- "Natives" defined as born in France to two French parents born in France (69,265 individuals). This is our reference group.
- Second-generation "North African" is defined as people born in France to a mother and/or a father who immigrated from the Maghreb (Algeria, Tunisia, and Morocco). We differentiate 3 sub-groups: those born to two immigrant parents (1,678 individuals), those born to an

[2] Defining individuals belonging to the second generation in France requires not only the parents' country of birth but also their nationality at birth, as a significant number of French are repatriates (born French citizens in colonial countries, mainly Algeria). The descendants of repatriates from North African countries represents approximately X% in XXXX of descendants of parents (French or not) born in those countries. Borrel and Simon (2005) have estimated that the proportion of descendants of repatriates amounts 56% for the descendants of parents (French or not) born in Algeria, 47% in Tunisia and 35% in Morocco.
[3] Actually these variables were also collected in 2005, but the quality of the information was questionable, so we excluded that year from our dataset.
[4] According to the ILO definition.

immigrant father and a native mother (445 individuals), those born to a native father and an immigrant mother (113 individuals)[5]. We excluded individuals born to a mixed couple with one immigrant parent from North Africa and the other immigrant from another region (XX individuals).
- Second-generation Southern European is defined as people born in France to a mother and/or a father who immigrated from Southern European countries (Italy, Spain, Portugal)[6]. As previously, we separate this group into 3 sub-groups: those born to two immigrant parents (1,685 individuals), those born to an immigrant father and a native mother (1,745 individuals), those born to a native father and an immigrant mother (583 individuals). We excluded individuals born to a mixed couple with one immigrant parent from Southern Europe and the other from another region (XX individuals).

Our main variable of interest is the position on the labor market, *i.e.*, in employment or unemployed. Figure 1 shows the average rate of unemployment over the 3 years according to our categories of origin. The second-generation North African group has the highest rate of unemployment - 26% -, the natives and the non-mixed second-generation Southern Europeans have the lowest (resp. 8% and 7%). The unemployment rate of mixed second-generation North Africans stands between these two extremes (18%). Interestingly, the unemployment rate of those born to an immigrant father is higher (19%) than that of those born to a native father (13%). There is no such discrepancy within the group of mixed second-generation Southern Europeans.

[Figure 1. Rate of unemployment and origin]

Of course these raw gaps between categories are partially due to structural effects, especially the age effect. Second-generation North Africans – predominantly born to parents who came in the sixties and the seventies - are younger than the natives and than part of the second generation of Southern Europeans, as Italian and Spanish immigration fell drastically after the Second World War. This is less the case for the Portuguese, who immigrated in large numbers in the sixties. As a result, the median age of second-generation North Africans is 33, while the median ages of natives and second-generation South Europeans are 39 years and 38 years respectively. As young people in France are massively affected by unemployment, it is not surprising that the observed rate is much higher for second–generation North Africans than it is for the other groups.

But the age effect does not explain the differences between mixed and non-mixed second generations. Other composition effects need to be detailed and taken into account, namely socio-economic background and education.

Second generation and mixed second generation: which differences?

[5] Native parents in a mixed couple are identified as French people born in France. It is possible that some of these French people are actually second generation themselves, *i.e.*, born to immigrant parents. But this is less likely for North-African second generation because of the dates of post-war migrations. A previous study on intermarried couples in 1992 – so corresponding to the group of parents of the second generation we are studying in this paper – indicates that more than 80% of intermarried "natives" were born to French parents (Meng & Meurs, 2009).

[6] We cannot distinguish between these countries or, in particular, restrict the second generation to those born from Portuguese parents, who would have constituted the best reference group as the dates of their migrations correspond with those from North Africa.

Which types of immigrants intermarry?

Since Gordon (1964), intermarriage has frequently been used as an indicator of the level of assimilation of a given group. The more immigrants are intermarried, the more their group is viewed as similar to the natives.

Intermarriage has been extensively studied by sociologists and demographers, and the factors influencing exogamy are well known (see Kalmijn, 1998 for a survey). As people generally prefer to marry within their ethnic group, exogamy requires a set of favorable conditions. First of all, the size of the group and its geographic concentration are key factors shaping the opportunities to marry out. Immigrants will more frequently intermarry when belonging to a small and dispersed group, as they have few possibilities to find a suitable partner within their own group. The sex ratio is also an important factor. When there are more men in the group, intermarriage is more frequent for men than for women: this was precisely the case for the economic immigrants to Europe in the sixties and seventies. The duration of stay in the host country also plays positively on the probability of intermarriage: immigrants who arrived at an early age and have been raised in the country have more opportunities to meet natives and little or no language barrier.

Secondly, intermarriage is more frequent among educated immigrants, due to a combination of several factors. Educated people are less permeable to the influence of social groups (parents, family, and community) and religion. The marriage market may also be considered as a competition for socio-economic resources which favors status homogamy: the most educated people are looking primarily for the most educated, etc. (Kalmijn, 1993). The role played by education in the choice of partner has grown in importance and is now considered the most important determinant of marriage (Kalmijn, 1991). So an educated male immigrant would prefer to marry an educated female immigrant, but as they are few, his second-best choice is an educated native female rather than a less educated immigrant female. Or, more simply, the choice of a partner is made within the group of co-students at college, and few immigrants are eligible partners.

Finally the degree of closure of groups may explain the differences in the intermarriage rate between ethnic groups. This closure may come either from the group itself, *i.e.*, the desire to keep the group boundaries closed - or from rejection of the group by the natives.

There are very few studies on intermarriage in France, despite quite a high level of intermarried immigrants. An empirical study by Safi & Godfrey (2008) indicates that the factors mentioned above (sex ratio, numerical size and degree of geographical segregation) have the expected effects on the intermarriage rate in France. Once these effects have been taken into account, there remain differences in the propensities to endogamy between groups and also differences in economic integration. The North Africans are characterized by a high propensity to exogamy and despite this, a persistent disadvantage in the labor market, which contradicts the hypothesis of Gordon. The Portuguese (and Asians) constitute an opposite case with a low intermarriage rate and high socio-economic status.

The data set used does not comprise information on the parents' level of education, but their occupation when the individual surveyed was 15 years old is available. The level of occupation is taken as a proxy of the level of parental qualification. We use 4 broad categories of occupations: self-employment, executives and intermediate occupations, workers or clerks, no occupation. Table 1 presents parental occupation for each sub-group by origin. As

predicted by the theory and empirical studies, parents of mixed second generation have higher socio-economic status than those of non-mixed second generation. This is verified in the North-African group: 81% of fathers of "non-mixed" second generation are workers or clerks, compared to 56% of fathers of mixed second generation. This is also observed in the Southern European group (resp. 74% and 58%). Migrant mothers of non-mixed second generation in the North-African group are predominantly inactive (71%), contrary to those of mixed second generation (41%). The same trend is observed for female immigrants from Southern Europe, but with a much less pronounced gap (resp. 47% and 41%). In spite of this average higher position for parents of mixed second generation compared with non-mixed second generation, mixed second generations are still worse off than natives as regards their parents' socio-economic status.

We also include the variable "ZUS" (sensitive urban zone), which indicates the location of individuals in poor geographical areas characterized by high unemployment. This variable is used here as an indicator of the socio-spatial environment. 25% of the "non-mixed" North-African second generation is located in this kind of area, compared with 5% of natives and of Southern European second generation. The corresponding proportion for the mixed North-African second generation is once again at an intermediate level (13%).

[Table 1. Individual characteristics – Second generation and mixed second generation]

Being born to an immigrant mother is not equivalent to being born to an immigrant father

As we want to compare the situation on the labor market of the mixed generation according to which parent is an immigrant (the father or the mother), we need to describe precisely the social background of the mixed second generation. In the literature on intermarriage, few studies have been conducted on the issue of gender, but there is general agreement on several stylized facts. First, statistical evidence proves that women are in general less prone to intermarriage than men. Second, the mechanisms on the marriage market are not symmetrical for men and women. Women are looking for a partner with the highest occupational status, as the male is traditionally viewed as the main provider of the family. Men are not so interested in the occupational status of women and pay more attention to other characteristics (youth, beauty, domestic ability, etc.). This traditional view of the household is now fading but still influential in the choice of partner (Kalmijn, 1998; Sassler, 2005).

Finally, the "exchange hypothesis" (Davis, 1941; Merton, 1941) is often advanced in the case of intermarriage between a native and an immigrant from a depreciated ethnic group. To be a native is considered by the society as a favorable characteristic which can be exchanged against a higher socioeconomic status. According to the Davis-Merton hypothesis, native women marry up, *i.e.*, with an immigrant husband with a higher socioeconomic status than hers, while immigrant men marry down; conversely immigrant women marry down while native men marry up.

The French case fits quite well with this general framework. As shown in Table 3, mixed second generations are less frequently born to an immigrant mother than to an immigrant father, whatever their country of origin. Moreover, the North-African mixed second generation with immigrant fathers and native mothers is characterized by a more favorable socio-economic status of the fathers compared with the immigrant pool (resp. 15% and 5 % are executive or intermediate) and a less favorable socio-economic status of the mothers

compared with the native pool (resp. 45% and 38% are clerk or worker). This tendency is also observed for the Southern European mixed second generation, but to a lesser degree (resp. 15% and 8% have an executive or intermediate father, 43% and 38% have clerk or worker mother). Conversely, the North-African mixed second generation with immigrant mothers and native fathers is characterized by a slightly less favorable socio-economic status of the fathers compared with the native pool (same proportion (25%) of father executive or intermediate, but resp. 56% and 50 % clerks or workers), and a more favorable socio-economic status of the mothers compared with the migrant pool (resp. 37% and 26% have clerk or worker mother, resp. 45% and 71% not working mother). Actually, the occupational structure of North-African migrant mothers married to natives is quite similar to that of natives (except for a more limited proportion of self-employment). The same pattern is observed for the Southern European group but still with a reduced gap between the different groups.

Table 2. Second generation parents' occupations by detailed origin

To sum up, being born to an immigrant father or to an immigrant mother is not equivalent. Within the mixed second generation, the socio-economic position inherited from a native father is superior to that inherited from an immigrant father, and the socio-economic "handicap" of being born to an immigrant mother is quite limited.

Are these socio-economic differences reflected in the education of the second generation? Table 4 shows the average proportion of diplomas in our sample, according to which parent of the mixed second generation is an immigrant. Natives are used as a comparison group. The performances of the mixed generation are obviously different according to which parent is the immigrant. Those born to a native father and an immigrant mother are doing quite well. There is no difference between natives and those born to a mother from Southern Europe. For those born to a mother from North African countries, there is just a smaller proportion with higher education (resp. 25% and 30% with a college degree). On the contrary, there is no difference between the non-mixed second generation and those born to an immigrant father, or even less educational achievement in this last group (resp. 32% and 37% at the lowest level, 25% and 20% with a college degree). Interestingly, these differences according to which of the parents is the native are also observed in the Southern European group, although the Southern Europe second generations have on average higher levels of education than the North-African second generation.

[Table 3. Education of second generations by detailed origin]

Estimating the net risk of unemployment

We estimate the risk of being unemployed using a logistic regression within the active population aged 16 to 60 years. We use 3 successive models. The first one introduces only the parents' origins and the year of the survey as dependant variables. We estimate the odds of unemployment for non-mixed and mixed parents compared with the natives. Then we refine the category of mixed (father immigrant or father native). The second specification includes individual characteristics likely to influence the risk of unemployment: gender, age, education, and inherited social capital, proxied by the occupations of the parents when the individual was aged 15 years, social and economic environment (regional unemployment rate, living in a ZUS). Finally we restrict our sample to those aged under 40 in order to have a more homogeneous sample in terms of age, but at the price of losing observations, especially for the North-African mixed generation (only 88 observations for those with a native father).

Odds ratios of the risk of unemployment by origin are presented in Table 4; complete estimations are given in Appendix 2.

[Table 4. Odds ratios of the risk of unemployment by origin]

The first model corresponds to the raw gap of the risk of unemployment between subcategories. As expected, being a woman – here used as a control variable – leads to a higher risk of unemployment (1.3) compared with men. Compared with natives, North-African non-mixed second generations have the highest risk (4.1), while the North-African mixed generation have a risk divided by two (2.4). Non-mixed Southern European second generation has a similar risk to the natives, while Southern European mixed second generation has a significantly higher risk than natives (1.2). When we detail the origin of the mixed second generation, the risk of unemployment is higher for North-Africans with an immigrant father than for those with a native father (resp. 2.6 and 1.8), while the reverse is observed for Southern European mixed second generation (resp 1.1 and 1.3).

These first models do not take composition effect into account, unlike models 2 and 2'. Most of the effects of control variables (presented in Appendix 2) are statistically significant with the expected signs: getting older significantly reduces the risk of unemployment; the less educated have the highest risk; having a self-employed father reduces the risk, having a mother without occupation increases it.

Structural effects substantially modify the risk of unemployment by category. There are no longer any differences between the unemployment risk of second generation from Southern Europe, mixed or not, and that of the natives. The probability of being unemployed is divided by two for the North-African non-mixed second generation (2.4). The situation of the North-African mixed generation is very different depending on the origin of the father. To be born to a North-African immigrant father leads to a significant risk of unemployment compared to natives, while for those born to a native father (and an immigrant North-African mother), the risk is from the same as for natives.
When we limit the sample to people aged less than 40 to get a more homogenous group, all these results are retained except that the Southern European second generation is less subject to unemployment than either natives or the Southern European mixed second generation. This may be due to differences in the country of origin within this group. As Portuguese immigrants were less prone to exogamy than the Italian and Spanish, it is highly probable that the Southern European mixed second generation contains less Portuguese parents than the non-mixed second generation. Combined with the fact that the Portuguese have developed an efficient network of firms on the labor market, this could explain the differences in the performance on the labor market within the Southern Europe second generation. But data limitations prevent us from testing the influence of the precise country of origin of the parents.

The case of the North-African second generation is more complex. As seen above, mixed second generations with native fathers are slightly less educated than natives. Indeed, when these structural effects are taken into account, we explain entirely their higher risk of unemployment compared to natives and the odds ratio is not significantly different from the reference group. This suggests that their native names (inherited from their fathers) help them to be considered and treated as natives. On the contrary, the unexplained unemployment risk of the North-African mixed generation with an immigrant father remains higher than for the

mixed second generation with an immigrant mother, after controlling for the observable characteristics. So this result is compatible with the idea that having a North-African name remains a disadvantage in looking for a job.

To explore this hypothesis, we have run the same equations on men separately (presented in Appendix 3), as women may change their names through marriage, so we are more certain for men than for women that the father's name may be used as an identifier of origin[7]. The results are similar to the previous ones: the North-African mixed generation with a native father has the same risk of unemployment as natives or the Southern European second generation, while the North-African mixed generation with an immigrant father has a positive net risk of unemployment. However, our sample is now very small, especially for those with a native father and an immigrant mother, so we must interpret these results with great caution.

But this is not the full story. We have observed that the mixed second generation with an immigrant father also has the lowest proportion of college degrees and the highest proportion with the lowest diplomas. So we would expect their raw rate of unemployment to be higher than the North-African non-mixed second generation, and this is not the case. Moreover, after controlling for education and other variables, there is still a statistically significant gap between the non-mixed and mixed second generations' risk of unemployment, the latter being less disadvantaged than the former. One possible explanation is that belonging to a mixed generation gives some unobservable advantages in term of unobservable characteristics, such as a more efficient network, more fluent French or better cultural code proficiency. It is also possible that the North-African non-mixed individuals are more reluctant to apply for a wide range of jobs, as they anticipate rejection. Consequently, their higher unemployment is partly the result of self-fulfilling prophecy. But the difference in the outcomes is also compatible with an explanation in terms of hiring discrimination, as the mixed second generation may be considered more acceptable by employers than the non-mixed second generation. A French first name and/or attenuated North-African physical features may play a role in this mechanism. Unfortunately there is no means to decide between these two hypotheses.

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[7] Even if the maiden name is often indicated in the resume.

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Figure 1. Rate of unemployment and origin

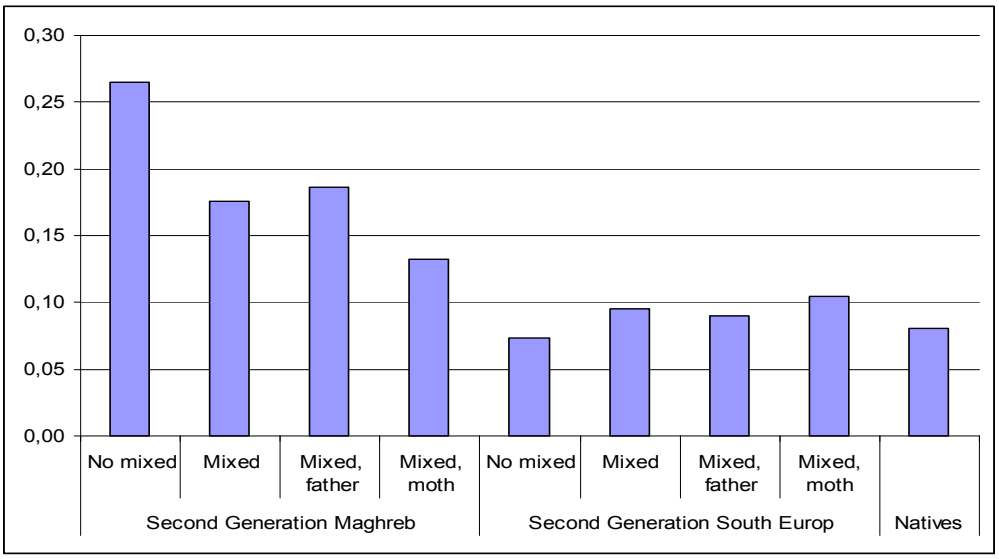

Table 1. Individual characteristics – Non-mixed and mixed second generation

	Second Generation N-African		Second Generation South Europe		Natives
	Non mixed	Mixed	Non mixed	Mixed	
Father occupation					
self empl (ref)	0,07	0,11	0,13	0,19	0,20
executive or interm	0,05	0,17	0,08	0,17	0,25
clerk or worker	0,81	0,56	0,74	0,58	0,50
No occ, no answ	0,08	0,15	0,05	0,06	0,05
Mother occupation					
self empl (ref)	0,01	0,03	0,04	0,07	0,12
executive or interm	0,01	0,12	0,02	0,09	0,13
clerk or worker	0,26	0,44	0,47	0,43	0,38
No occ, no answ	0,71	0,41	0,47	0,41	0,38
Zus	0,25	0,13	0,06	0,05	0,05
Eff.	1678	558	1685	1745	69265

Table 2. Second generations' parents' occupations by detailed origin

	Second Generation N-African			Second Generation South Europe			Natives
	Non mixed	Mixed, father immigrant	Mixed, mother immigrant	Non mixed	Mixed, father immigrant	Mixed, mother immigrant	
Father occ							
self empl (ref)	0,07	0,12	0,09	0,13	0,20	0,17	0,20
executive or interm	0,05	0,15	0,25	0,08	0,15	0,21	0,25
clerk or worker	0,81	0,57	0,56	0,74	0,59	0,57	0,50
no occ, no answ	0,08	0,16	0,11	0,05	0,06	0,05	0,05
Mother occ							
self empl (ref)	0,01	0,02	0,04	0,04	0,07	0,08	0,12
executive or intermediate	0,01	0,12	0,13	0,02	0,10	0,08	0,13
clerk or worker	0,26	0,45	0,37	0,47	0,43	0,45	0,38
no occ, no answ	0,71	0,40	0,45	0,47	0,41	0,39	0,38
ZUS	0,25	0,13	0,12	0,06	0,05	0,04	0,05
N Obs	1678	445	113	1685	1162	583	69265

Table 3. Education of second generations by detailed origin

	Second Generation N-African			Second Generation South Europ			Natives
	Non mixed	Mixed, father immigrant	Mixed, mother immigrant	Non mixed	Mixed, father immigrant	Mixed, mother immigrant	
Lowest level (max BEPC)	0,32	0,37	0,21	0,25	0,27	0,22	0,24
Techn dipl	0,23	0,26	0,28	0,33	0,32	0,30	0,27
High school	0,20	0,18	0,26	0,19	0,17	0,18	0,19
College	0,25	0,20	0,25	0,24	0,24	0,30	0,30
N Obs	1678	445	113	1685	1162	583	69265

Table 4. Odds ratio of the risk of unemployment
Dependant variable: being unemployed

	Model 1	Model 1'	Model 2	Model 2'	Model 3 People then than 40	Model 3' People less than 40
Female (ref. male)	1.216***	1.216***	1.394***	1.394***	1.499***	1.499***
	(0.0319)	(0.0319)	(0.0382)	(0.0382)	(0.0494)	(0.0494)
N-African, mixed	2.420***		1.658***		1.511***	
	(0.272)		(0.195)		(0.201)	
N-African, father immigrant		2.601***		1.780***		1.592***
		(0.319)		(0.229)		(0.235)
N-African, father native		1.746**		1.199		1.219
		(0.485)		(0.348)		(0.375)
N-African, non mixed	4.096***	4.096***	2.374***	2.374***	2.264***	2.264***
	(0.234)	(0.234)	(0.149)	(0.149)	(0.153)	(0.153)
South, mixed	1.194**		1.093		1.063	
	(0.0989)		(0.0937)		(0.109)	
South, father imm		1.129		1.066		1.055
		(0.117)		(0.113)		(0.136)
South, father native		1.326**		1.146		1.077
		(0.180)		(0.162)		(0.178)
South, non mixed	0.895	0.895	0.860	0.860	0.818*	0.818*
	(0.0848)	(0.0848)	(0.0834)	(0.0834)	(0.0937)	(0.0937)
ref: natives						

Source: Labour Force French Surveys, 2006-2008.

Model 1: dependant variables: sex, second generation and mixed second generation by origin, year of the survey

Model 1': dependant variables: sex, second generation and detailed mixed second generation by origin, year of the survey

Model 2: Model 1 + age, age squ, education (4 dummies), father occupation, mother occupation, regional rate of unemployment, ZUS area or not.

Model 2': Model 1' + age, age squ, education (4 dummies), father occupation, mother occupation, regional rate of unemployment, ZUS area or not.

Model 3: Model 2, sample restricted to people less than 40 years

Model 3': Model 2', sample restricted to people less than 40 years

Appendix 1. Descriptive statistics

		N-African			South Europ			Natives
	mixed, father imm	mixed, mother imm	non mixed	mixed, father imm	mixed, mother imm	non mixed	
N Obs	445	113	1,678	1,162	583	1,685	69265
Unemployment rate (%)	18.7	13.3	26.5	9.0	10.5	7.3	8.1
Age	33.59	33.43	29.94	37.98	35.39	37.17	38.86
(st error)	(10.06)	(9.87)	(7.61)	(12.07)	(11.56)	(10.18)	(11.36)
Education							
max cep bepc (ref)	0.32	0.37	0.21	0.25	0.27	0.22	0.24
cap bep	0.23	0.26	0.28	0.33	0.32	0.30	0.27
Bac	0.20	0.18	0.26	0.19	0.17	0.18	0.19
sup bac	0.25	0.20	0.25	0.24	0.24	0.30	0.30
Father occup							
self empl (ref)	0.07	0.12	0.09	0.13	0.20	0.17	0.20
executive or interm	0.05	0.15	0.25	0.08	0.15	0.21	0.25
clerk or worker	0.81	0.57	0.56	0.74	0.59	0.57	0.50
no occ, no answ	0.08	0.16	0.11	0.05	0.06	0.05	0.05
	0.07	0.12	0.09	0.13	0.20	0.17	0.20
Mother occup							
self empl (ref)	0.01	0.02	0.04	0.04	0.07	0.08	0.12
executive or interm	0.01	0.12	0.13	0.02	0.10	0.08	0.13
clerk or worker	0.26	0.45	0.37	0.47	0.43	0.45	0.38
no occ, no answ	0.71	0.40	0.45	0.47	0.41	0.39	0.38
Zus	0.25	0.13	0.12	0.06	0.05	0.04	0.05
2009	0.30	0.31	0.32	0.32	0.34	0.35	0.33
2007	0.35	0.34	0.36	0.35	0.31	0.32	0.34
2008	0.36	0.34	0.33	0.33	0.35	0.33	0.33

Appendix 2: Probability of being unemployed, men and women less than 60– Odds ratio

Dependant variable: to be unemployed

	Model 1	Model 1'	Model 2	Model 2'	Model 2 People then than 40	Model 2' People less than 40
female	1.216***	1.216***	1.394***	1.394***	1.499***	1.499***
	(0.0319)	(0.0319)	(0.0382)	(0.0382)	(0.0494)	(0.0494)
N-African, mixed	2.420***		1.658***		1.511***	
	(0.272)		(0.195)		(0.201)	
N-African, fath imm		2.601***		1.780***		1.592***
		(0.319)		(0.229)		(0.235)
N-African, moth imm		1.746**		1.199		1.219
		(0.485)		(0.348)		(0.375)
N-African, non mixed	4.096***	4.096***	2.374***	2.374***	2.264***	2.264***
	(0.234)	(0.234)	(0.149)	(0.149)	(0.153)	(0.153)
South, mixed	1.194**		1.093	1.066	1.063	
	(0.0989)		(0.0937)	(0.113)	(0.109)	
South, fath imm		1.129		1.146		1.055
		(0.117)		(0.162)		(0.136)
South, moth imm		1.326**				1.077
		(0.180)				(0.178)
South, non mixed	0.895	0.895	0.860	0.860	0.818*	0.818*
	(0.0848)	(0.0848)	(0.0834)	(0.0834)	(0.0937)	(0.0937)
ref: natives						
age			0.874***	0.874***	0.911***	0.911***
			(0.00693)	(0.00693)	(0.0177)	(0.0177)
age2			1.001***	1.001***	1.000	1.000
			(0.000107)	(0.000107)	(0.000334)	(0.000334)
_Idiplb_2			0.580***	0.581***	0.581***	0.581***
			(0.0201)	(0.0202)	(0.0248)	(0.0249)
_Idiplb_3			0.430***	0.430***	0.399***	0.399***
			(0.0174)	(0.0175)	(0.0188)	(0.0188)
_Idiplb_4			0.303***	0.303***	0.261***	0.261***
			(0.0127)	(0.0127)	(0.0132)	(0.0132)
cspere2			1.341***	1.342***	1.325***	1.325***
			(0.0707)	(0.0708)	(0.0836)	(0.0837)
cspere3			1.307***	1.308***	1.254***	1.254***
			(0.0612)	(0.0612)	(0.0717)	(0.0717)
cspere4			1.760***	1.759***	1.659***	1.658***
			(0.112)	(0.112)	(0.125)	(0.125)
csmere2			1.063	1.063	0.991	0.990
			(0.0762)	(0.0762)	(0.0865)	(0.0865)
csmere3			0.911	0.911	0.843**	0.842**
			(0.0563)	(0.0563)	(0.0658)	(0.0657)
csmere4			1.141**	1.140**	1.168**	1.167*
			(0.0695)	(0.0695)	(0.0924)	(0.0923)
cho_r03			1.115***	1.115***	1.116***	1.116***
			(0.00952)	(0.00952)	(0.0114)	(0.0114)
zus			1.663***	1.663***	1.717***	1.717***
			(0.0776)	(0.0776)	(0.0937)	(0.0937)
_Iyear_2007			0.926**	0.926**	0.928*	0.929*
			(0.0310)	(0.0310)	(0.0370)	(0.0370)
_Iyear_2008			0.994	0.994	0.975	0.975
			(0.0354)	(0.0354)	(0.0416)	(0.0416)
Constant	0.0799***	0.0799***	1.058	1.059	0.701	0.700
	(0.00156)	(0.00156)	(0.173)	(0.173)	(0.201)	(0.201)
Observations	74933	74933	74931	74931	41561	41561

Appendix 3: Probability of being unemployed, men less than 60– Odds ratio

Dependant variable: being unemployed

	Model 1	Model 1'	Model 2	Model 2'	Model 2 People then than 40	Model 2' People less than 40
N-African, mixed	2.593***		1.789***		1.743***	
	(0.410)		(0.298)		(0.324)	
N-African, fath imm		2.956***		1.997***		1.896***
		(0.504)		(0.361)		(0.386)
N-African, moth imm		1.380		1.042		1.197
		(0.594)		(0.462)		(0.546)
N-African, non mixed	4.623***	4.623***	2.605***	2.604***	2.544***	2.543***
	(0.365)	(0.365)	(0.229)	(0.229)	(0.236)	(0.236)
South, mixed	1.192	1.086	1.077	1.020	1.148	1.090
	(0.143)	(0.165)	(0.133)	(0.159)	(0.163)	(0.198)
South, fath imm		1.411*		1.186		1.248
		(0.273)		(0.239)		(0.281)
South, moth imm		0.977		0.967		0.861
		(0.128)		(0.131)		(0.143)
South, non mixed	0.977		0.967		0.861	
	(0.128)		(0.131)		(0.143)	
ref: natives						
age			0.865***	0.865***	0.941**	0.942**
			(0.00975)	(0.00975)	(0.0259)	(0.0259)
age2			1.001***	1.001***	1.000	1.000
			(0.000152)	(0.000152)	(0.000478)	(0.000478)
_Idiplb_2			0.528***	0.529***	0.515***	0.516***
			(0.0257)	(0.0258)	(0.0306)	(0.0307)
_Idiplb_3			0.435***	0.436***	0.390***	0.390***
			(0.0261)	(0.0262)	(0.0270)	(0.0270)
_Idiplb_4			0.345***	0.345***	0.304***	0.305***
			(0.0211)	(0.0211)	(0.0223)	(0.0223)
cspere2			1.597***	1.599***	1.525***	1.528***
			(0.125)	(0.125)	(0.140)	(0.141)
cspere3			1.449***	1.450***	1.267***	1.268***
			(0.102)	(0.102)	(0.107)	(0.107)
cspere4			2.104***	2.105***	1.831***	1.830***
			(0.194)	(0.195)	(0.198)	(0.198)
csmere2			1.193*	1.194*	1.207	1.207
			(0.127)	(0.127)	(0.157)	(0.157)
csmere3			0.963	0.962	0.943	0.942
			(0.0899)	(0.0898)	(0.112)	(0.112)
csmere4			1.158	1.158	1.281**	1.282**
			(0.107)	(0.107)	(0.153)	(0.154)
cho_r03			1.126***	1.126***	1.139***	1.139***
			(0.0137)	(0.0137)	(0.0165)	(0.0165)
zus			1.985***	1.986***	1.960***	1.960***
			(0.128)	(0.128)	(0.148)	(0.148)
_Iyear_2007			0.954	0.955	0.963	0.963
			(0.0459)	(0.0459)	(0.0547)	(0.0547)
_Iyear_2008			0.990	0.989	0.952	0.952
			(0.0509)	(0.0509)	(0.0583)	(0.0583)
Constant	0.0791***	0.0791***	0.875	0.874	0.328***	0.327***
	(0.00160)	(0.00160)	(0.203)	(0.203)	(0.133)	(0.132)
Observations	39025	39025	39023	39023	21961	21961

in brackets: standard errors
*** p<0.01, ** p<0.05, * p<0.1