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Evidence from Matched Employer-Employee Data

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Abstract

This paper attempts to explain national origin wage differentials in France. Our data come from a matched employer-employee wage survey performed in 2002. Business survey data are matched to many individual-level variables collected in a household survey. The sample of professionals is decomposed into several sub-samples: within each gender, a distinction is made according to the parents' birthplace (France, North Africa and Southern Europe).

We perform a switching regression model of wage determination and occupational employment. Our results suggest that earnings differentials mostly reflect differences in the type of jobs taken up by individuals, according to their experience, background and education. This leads us to favor an interpretation in terms of a certain degree of occupational segregation, rather than mere wage discrimination.

Keywords: immigration, discrimination, wage gap, France.

Résumé

Cet article s'appuie sur les données de l'enquête sur la structure des salaires en 2002 pour analyser les déterminants des écarts salariaux observés selon le pays de naissance des parents des salariés. Cette enquête menée par l'Insee présente l'originalité de rapprocher des données collectées auprès des entreprises et des informations directement recueillies auprès des salariés. En distinguant à chaque fois les hommes et les femmes, on compare donc ici la situation des salariés français dont les deux parents sont nés en France à ceux dont les deux parents sont nés au Maghreb (Algérie, Maroc, Tunisie) ou bien en Europe du Sud (Espagne, Italie, Portugal). Les résultats présentés sont issus d'un modèle de sélection à deux régimes, qui vise à expliquer à la fois la variabilité des salaires et les différences de probabilités d'accès au statut de cadre. Ils suggèrent précisément que les éventuelles discriminations porteraient moins sur les salaires que sur l'accès aux catégories socioprofessionnelles les plus rémunératrices. Une fois ces barrières franchies, les salariés obtiendraient, à poste et niveau de diplôme équivalents, des niveaux de salaires sensiblement égaux, quel que soit le pays de naissance de leurs parents : les différences observées s'expliqueraient donc davantage par de la ségrégation dans l'emploi que par des discriminations portant sur le seul salaire.

Mots clés : immigration, discrimination, salaires.

JEL Classification: J15, J16, J31, J71

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1 Introduction

November 2005 riots in France, occurring simultaneously in various poor suburbs of large cities where immigrants are over-represented, suddenly highlighted the problem of discriminations in the labor market.

Reflecting the diversity of the French population is currently an objective to which political parties, television networks, large corporations and higher education establishments subscribe. Nevertheless the explicit mention of the "ethnic" dimension of diversity is often seen to be incompatible with the French republican ideal and the "one-law-for-all" model of integration (Calvès, 2005).

An immigrant is a person who was born in a foreign country and who was not French at birth. The so-called "second" and "third" generations refer to the French who were born in France, but whose parents or grandparents were immigrants.

Since 1975, the proportion of immigrants in the population has remained stable (7.4 % in 1999), but their geographical origin has evolved (INSEE, 2005). In 1962, most of them came from Europe (79 %), especially from Italy and Spain, and only 15 % came from Africa. In 1999, 45 % came from Europe and 39 % came from Africa, especially from North Africa. Immigrants are more affected by unemployment: their unemployment rate (16.4 % in 2002) is twice that of non-immigrants (8.2 %). They are more often manual workers or employees, especially in unskilled jobs, and are over-represented in industry and construction.

People born in France with two immigrant parents represent 5 % of the people aged 66 and less in 1999. Children of immigrants often have difficulties at school, but no more than other children having the same social characteristics. While 20 % of the young aged 19 to 29 whose parents are not immigrants are unemployed, the unemployment rate is 30 % for those with two immigrant parents. Their situation depends on their parents' origin: their unemployment rate is nearly 40 % if their parents are from Algeria or Morocco, whereas it is slightly under 20 % if they are from Southern Europe (Spain, Italy, Portugal).

These numbers naturally raise the question of the integration - and potential discrimination - of immigrants' children in the labor market. The situation of the children of North African and African immigrants in the

suburbs of French cities is particularly at stake.

Employment rate differentials and wage gaps between individuals of different national origins have been studied extensively by economists, and have generated in international literature a lot of empirical research on labor market discrimination.

Discrimination occurs when people are treated differently only because they belong to different demographic groups. For more than forty years, economists and econometricians, pioneered by Becker (1957), Arrow (1973) and Phelps (1972), have developed theoretical and empirical tools to study this phenomenon. These tools largely contributed to the analysis of inequalities on the labor market. They mainly deal with differences in access to employment as well as differences in wages, between ethnic groups and between men and women.

Statistical discrimination may appear if employers use their beliefs about the average quality of the various demographic groups of potential employees. Indeed, firms only have little information about their characteristics: they sometimes have to use additional information (results of recruitment tests for example) or, more simply, they take into account beliefs about the average performance of each demographic group. As a result, divergent professional opportunities might be proposed to different workers with similar abilities: these divergences only rely on employers' stereotypes about the abilities of minority workers.

Statistical discrimination is a potential source of individual discrimination: even highly productive employees might earn low wages only because they belong to demographic groups thought to be among the less productive ones by employers. Cultural and linguistic patterns of ethnic minorities are a potential source of discrimination as they bias the evaluation of the employees' abilities.

Moreover, statistical discrimination is likely to generate persistent inequalities between groups: in the model developed by Coate and Loury (1993), an employer who has negative stereotypes against a specific group is less likely to hire workers belonging to that group. For these workers, this lowers the expected return on investments that would make them more employable. As a result negative stereotypes might constitute a "self-fulfilling prophecy".

The comprehensive survey by Altonji and Blank (1999) presents the most

important econometric studies dealing with discrimination. There have been a number of empirical studies in which attempts were made to decompose observed employment rates and earnings differentials into human capital and discrimination components. One of the decomposition methods that was most often used was popularized by Oaxaca (1973) and Blinder (1973). Most American studies conclude that although differences in worker-observable characteristics are important factors of the Black-White wage differential, the current labor market discrimination accounts for at least one-third of the overall gap.

However, these hypothesized "skill" and "treatment" components may lead to difficult interpretations. The so-called "treatment" or "discrimination" component may be over-estimated due to unobservable heterogeneity. Another twist in wage gap decomposition methodology is caused by potential selectivity bias. That is why more general approaches were proposed (see for examples the papers by Oaxaca and Ransom (1994), Neuman and Oaxaca (2004a and 2004b)). Other studies tried to account for the fact that controls for worker productivity may be very inaccurate measures of workers' skills: Neal and Johnson (1996) use the armed forces qualification test as a better measure of skill. This test is taken before entry on the labor market and is therefore less likely to be contaminated by worker's choices or labor market discrimination.

A different set of studies, known as audit studies, attempt to place comparable minority and White actors into actual social and economic settings and measure how each group fares in these settings (Heckman, 1998). These audit studies provide some of the cleanest non-laboratory evidence of differential treatment by national origin. Bertrand and Mullainathan (2003) performed such a field experiment to measure racial discrimination in the labor market. They responded with fictitious résumés to help-wanted ads, assigning each résumé either an African American sounding name or a White sounding name: White names received 50 percent more callbacks for interviews, and this result suggests that racial discrimination is still a prominent feature of the labor market.

In spite of this vast literature on national origin discrimination issues, little attention has been devoted to the French case. This lack is partly due to the fact that the French republican and egalitarian ideal prevents from defining "ethnic" statistical categories. However, by analyzing longitudinal

data, Fougère and Safi (2005) show that being granted French citizenship has a positive impact on access to employment for immigrants. This "naturalization premium" seems particularly important for immigrant groups facing difficulties entering the labor market, that is, mostly men from sub-Saharan Africa and from Morocco, and women from Turkey and from North Africa. Silberman and Fournier (1999), and Meurs, Pailhé and Simon (2005) suggest that children of immigrants might suffer from discrimination in the labor market. Pouget (2005) focuses on the difficult access to civil service.

Our paper is the first econometric analysis in France to study the wages of the French workers whose both parents were born abroad, using a business survey. We focus on the links between hierarchical position and national origin wage differentials: these differentials can be due to differences in endowments, to wage discrimination, but also to hierarchical segregation. In order to identify these effects, we perform a switching regression model, allowing endogeneity of the occupation.

The structure of this paper is as follows. Section 2 provides details on the French 2002 Structure of Earnings Survey, including some descriptive statistics. Section 3 outlines the econometrical framework. Section 4 presents the empirical findings, while Section 5 contains a summary and conclusion.

2 Data

2.1 Presentation

The Structure of Earnings Survey (Enquête sur la Structure des Salaires, SES hereafter) performed in France by the National Institute for Statistics and Economic Studies (INSEE) in 2002, is part of a program initiated in 1966 by the European Statistical Office. SES 2002 is the first of a series of four-yearly surveys to be conducted in all Member States of the European Union. The objective of these surveys is to provide accurate and harmonized data on earnings in EU Member States for policy-making and research purposes. SES 2002 gives detailed and comparable information on the structure and distribution of earnings, as well as individual characteristics of employers and employees.

The French SES covers firms with at least 10 employees and economic activity inside NACE sections C to K (i.e. all manufacturing industries, construction, trade, hotels and restaurants, transports, finance, real estate

and services supplied to businesses).

The sampling frame has two levels: at the first level, production units are sampled, according to characteristics like their size, economic activity and geographical location; at the second level, individuals employed at these sampled units are also sampled (24 at most in each unit), according to their position (executive or not). Executives are over-represented in the sample, allowing us to study accurately occupational positions. Appropriate weights are calculated in order to generate nationally representative descriptive statistics. The universe is known from the Déclarations Annuelles de Données Sociales (DADS) which are administrative registers covering all employees in the private sector. All data refer to year 2002, but for practical reasons the sample design is specified in DADS 2001. As a result, the survey is unlikely to take into account the most unstable employment situations.

The originality of the French SES is that it is both a business and a household survey. Indeed, there are three series of questionnaires: one that concerns the local unit, including questions about wage policy, existence of firm-level or branch-level agreements, or presence of trade-union delegates. The second series was also filled by the firms and concerns the sampled employees. It includes occupation, firm-specific seniority, number of days and hours worked and paid, and total annual compensations with very detailed allowances, bonuses and other non monthly benefits. In this paper, all statistics refer to total annualized compensations. The last series of questionnaires was directly sent to the sampled employees and concerns more personal issues including nationality, labor force experience, marital status, number of children and country of birth of the parents. Since this direct questionnaire contains detailed questions about career breaks, it allows for instance to build a more accurate measure of labor force experience than the usual potential experience.

We excluded from our study all workers who earned more than 200 000 €, which corresponds to the last wage percentile.

As we want to study more precisely differences between employees whose both parents were born in France and those whose both parents were born abroad, we restricted the sample used in our analysis to 3 sub-populations:

- French employees whose both parents were born in France (38 025)
- French employees whose both parents were born in Maghreb (1 357)

- French employees whose both parents were born in Southern Europe (1 316)

Within each sub-population, a distinction is made according to gender. We restrict our analysis to Maghreb and Southern Europe because these two areas are the most frequent birthplaces of immigrants. Note that we do not study, strictly speaking, the "second generation" of immigrants (as we only have information about their parents' birthplaces and not about their parents' nationality at birth, see appendix A for details).

2.2 Descriptive Statistics

Children of foreign-born parents differ significantly from those of native-born parents in terms of distribution of skills. Table 2 documents their respective educational attainment. In our sample, 23.1 % of male workers of Maghrebian origin have no diploma, compared to 11.9 % of those of French origin.

As a result, children of foreign-born parents are less likely to become executives. 16.1 % of male workers whose both parents were born in Maghreb, 11.3 % of those of Southern European origin and 21.2 % of those of French origin are executives. Male workers of Maghrebian origin are over-represented in construction, transports, services to businesses, hotels and restaurants. Female workers are over-represented in trade. Workers of Southern European origin are more likely to be employed in industry and construction.

Wage differentials reflect these differences in the types of jobs taken up by individuals, according to their acquired skills, background and education (Tables 1, 3 and 4). The typical male worker whose both parents were born in Maghreb earns 7.6 % less than the typical male worker whose both parents were born in France. Wage differentials disaggregated by occupation are obviously lower: 3.1 % for non-executives and 1.6 % for executives. For female workers, national origin wage differentials are smaller. There are even slightly in favor of female workers of North African origin, who earn 1.6 % more than their colleagues of French origin.

Wage breakdowns don't differ significantly over these sub-populations. Whatever their national origin, women tend to receive fewer bonuses. Note that male workers of Maghrebian origin receive more bonuses related to job constraints (2.4 % of their average annualized wages, compared to 1.9 % of the average wage of male workers of French origin).

3 Methodology

3.1 Introduction

Following Oaxaca (1973), we study the wage gap between a benchmark population and a potentially discriminated one. It consists in breaking the wage differential into a part attributable to individual observable characteristics and an unexplained part usually referred to as potential discrimination.

The original Oaxaca decomposition works as follows. Let's set up a basic wage equation such as $w = X\beta + \varepsilon$ where w represents the log of the wage vector, X is a matrix of individual observable characteristics, β is the vector of coefficients and ε is the error term.

Estimating this model using OLS on two sub-populations 1 and 2 leads to the following decomposition[1]:

$$\begin{aligned}\overline{w}_1 - \overline{w}_2 &= \overline{X}_1\hat{\beta}_1 - \overline{X}_2\hat{\beta}_2 \\ &= \underbrace{(\overline{X}_1 - \overline{X}_2)\hat{\beta}_1}_{\text{structural part}} + \underbrace{\overline{X}_2(\hat{\beta}_1 - \hat{\beta}_2)}_{\text{unexplained part}}\end{aligned}$$

This kind of decomposition can prove quite sensitive to the chosen set of explanatory variables. A common question is to know how to deal with the hierarchical position inside the firm. Since it is highly correlated with the wage, you may want to include it in the set of explanatory variables. But it makes the interpretation of the results more difficult. Imagine you want to study male-female wage gaps. If you put the position as a regressor, you may end up explaining the wage gap saying: "Men are paid more because they hold executive positions more often than women and executives are paid higher wages on average than non-executives". This interpretation can be misleading in terms of discrimination because it includes potential segregation effects inside the "explained part" of the wage differential.

Here we develop a methodology to deal with the problem of the hierarchical position in the firm. Following Neuman and Oaxaca (2004a and 2004b), we extend their selection framework to a switching regression model. We separate all sub-populations of interest into executives and non-executives and we estimate jointly two wage equations taking into account selectiv-

[1] population 1 is considered here as the benchmark population, and there is an intercept in the set of explanatory variables X, so that $\overline{w} = \overline{X}\hat{\beta}$

ity issues for the access to executive positions. In this way we can assess potential segregation issues concerning hierarchical positions.

3.2 The Switching Regression Model

In order to trim notations, w will always represent the log of the wage.

We set up the model as follows:

$$\begin{cases} w_c = X_c\beta_c + u_c & \text{observed if and only if } C = 1 \\ w_{nc} = X_{nc}\beta_{nc} + u_{nc} & \text{observed if and only if } C = 0 \\ C = \mathbb{1}_{\{Z\gamma+\varepsilon>0\}} & \text{dummy for executives} \end{cases}$$

with

$$\begin{pmatrix} u_c \\ u_{nc} \\ \varepsilon \end{pmatrix} \sim \mathcal{N}\left(\begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} \sigma_c^2 & 0 & \rho_c\sigma_c \\ 0 & \sigma_{nc}^2 & \rho_{nc}\sigma_{nc} \\ \rho_c\sigma_c & \rho_{nc}\sigma_{nc} & 1 \end{pmatrix} \right)$$

In this case, wage expectations conditional on being an executive or not can be written as:

$$\begin{aligned} \mathbb{E}(w_c \mid C = 1) &= X_c\beta_c + \mathbb{E}(u_c \mid C = 1) \\ &= X_c\beta_c + \rho_c\sigma_c\mathbb{E}(\varepsilon \mid Z\gamma + \varepsilon > 0) \\ &= X_c\beta_c + \rho_c\sigma_c\frac{\varphi(Z\gamma)}{\Phi(Z\gamma)} \end{aligned}$$

and

$$\begin{aligned} \mathbb{E}(w_{nc} \mid C = 0) &= X_{nc}\beta_{nc} + \mathbb{E}(u_{nc} \mid C = 0) \\ &= X_{nc}\beta_{nc} + \rho_{nc}\sigma_{nc}\mathbb{E}(\varepsilon \mid Z\gamma + \varepsilon < 0) \\ &= X_{nc}\beta_{nc} - \rho_{nc}\sigma_{nc}\frac{\varphi(Z\gamma)}{1 - \Phi(Z\gamma)} \end{aligned}$$

where φ and Φ are the pdf and cdf of a gaussian law.

3.3 Decompositions

There are several ways to decompose wage gaps into explained and unexplained parts. More precisely, attention should be drawn to the choice of

the reference population and to the treatment of selectivity.

Since our study mostly concerns discrimination regarding national origin, we choose to focus on the computation of an "expected wage" for the potentially discriminated population. That is, if we call the benchmark population 1, and the potentially discriminated one 2, we try to answer the following question: "What would the wage distribution of population 2 look like if it faced the same employment conditions and wages as population 1 ?" In our particular framework the question becomes: "If population 2 faced the same coefficients as population 1, what would be its share of executives and what would be the mean wage among executives and among non-executives conditional on facing the same selection as population 1 ?"

These considerations will also lead us in how to deal with selectivity issues. Decomposing the expected gap in terms of conditional expectations gives:

$$\mathbb{E}_1(w_1) - \mathbb{E}_2(w_2) = \underbrace{\mathbb{E}_1(w_1) - \mathbb{E}_1(w_2)}_{\text{structural part}} + \underbrace{\mathbb{E}_1(w_2) - \mathbb{E}_2(w_2)}_{\text{unexplained part}}$$

where $\mathbb{E}_1()$ denotes expectation conditional on being part of population 1. In that sense, $\mathbb{E}_1(w_2)$ represents the expected mean wage of population 2 conditional on being treated as a member of population 1.

Now we can decompose the structural and unexplained parts conditional on being an executive or not.

The structural part can we written as:

$$\begin{aligned}
\mathbb{E}_1(w_1) - \mathbb{E}_1(w_2) =& \mathbb{E}_1(w_{c_1} \mid C_1 = 1)\mathbb{P}_1(C_1 = 1) + \mathbb{E}_1(w_{nc_1} \mid C_1 = 0)\mathbb{P}_1(C_1 = 0) \\
&- \mathbb{E}_1(w_{c_2} \mid C_2 = 1)\mathbb{P}_1(C_2 = 1) - \mathbb{E}_1(w_{nc_2} \mid C_2 = 0)\mathbb{P}_1(C_2 = 0) \\
=& \left[\mathbb{E}_1(w_{c_1} \mid C_1 = 1) - \mathbb{E}_1(w_{c_2} \mid C_2 = 1)\right] \mathbb{P}_1(C_2 = 1) \\
&+ \left[\mathbb{E}_1(w_{nc_1} \mid C_1 = 0) - \mathbb{E}_1(w_{nc_2} \mid C_2 = 0)\right] \mathbb{P}_1(C_2 = 0) \\
&+ \left[\mathbb{E}_1(w_{c_1} \mid C_1 = 1) - \mathbb{E}_1(w_{nc_1} \mid C_1 = 0)\right] \left[\mathbb{P}_1(C_1 = 1) - \mathbb{P}_1(C_2 = 1)\right]
\end{aligned}$$

And the unexplained part can we written as:

$$\begin{aligned}\mathbb{E}_1(w_2) - \mathbb{E}_2(w_2) =& \mathbb{E}_1(w_{c_2} \mid C_2 = 1)\mathbb{P}_1(C_2 = 1) + \mathbb{E}_1(w_{nc_2} \mid C_2 = 0)\mathbb{P}_1(C_2 = 0) \\ & - \mathbb{E}_2(w_{c_2} \mid C_2 = 1)\mathbb{P}_2(C_2 = 1) - \mathbb{E}_2(w_{nc_2} \mid C_2 = 0)\mathbb{P}_2(C_2 = 0) \\ =& \left[\mathbb{E}_1(w_{c_2} \mid C_2 = 1) - \mathbb{E}_2(w_{c_2} \mid C_2 = 1)\right] \mathbb{P}_1(C_2 = 1) \\ & + \left[\mathbb{E}_1(w_{nc_2} \mid C_2 = 0) - \mathbb{E}_2(w_{nc_2} \mid C_2 = 0)\right] \mathbb{P}_1(C_2 = 0) \\ & + \left[\mathbb{E}_2(w_{c_2} \mid C_2 = 1) - \mathbb{E}_2(w_{nc_2} \mid C_2 = 0)\right] \left[\mathbb{P}_1(C_2 = 1) - \mathbb{P}_2(C_2 = 1)\right]\end{aligned}$$

Each part is broken into three portions. The first one comes from the wage differential among executives, the second one among non executives and the last one comes from the average differential between the wages of executives and non-executives. In other words, let's consider for instance the unexplained part. If $\mathbb{E}_1(w_2)$ is greater than $\mathbb{E}_2(w_2)$, i.e. the expected wage of members of 2 conditional on being a member of 1 is greater than their actual wage, the differential can be attributed to either or all of the following factors: an unexplained wage differential among executives, an unexplained wage differential among non-executives or an unexplained difference in the share of executives.

3.4 Estimation and Practical Decompositions

Some of the previous expectations can be estimated directly from the data, whereas some others have to be inferred using the model computed on the benchmark population.

$\mathbb{E}_1(w_1)$, $\mathbb{E}_1(w_{c_1} \mid C_1 = 1)$, $\mathbb{P}_1(C_1 = 1)$, $\mathbb{E}_1(w_{nc_1} \mid C_1 = 0)$ and $\mathbb{P}_1(C_1 = 0)$, as well as their counterparts for population 2 are estimated directly as the observed means on the sample.

On the other hand, $\mathbb{E}_1(w_{c_2} \mid C_2 = 1)$, $\mathbb{P}_1(C_2 = 1)$, $\mathbb{E}_1(w_{nc_2} \mid C_2 = 0)$ and $\mathbb{P}_1(C_2 = 0)$ are estimated using the coefficients of the model computed on population 1, and the individual characteristics of the members of population 2.

If we use asterisks to distinguish potential wages and potential shares of executives from the effective ones, all the decompositions above can be rewritten as:

$$\overline{w}_1 - \overline{w}_2 = \underbrace{\overline{w}_1 - \overline{w}_2^*}_{\text{structural part}} + \underbrace{\overline{w}_2^* - \overline{w}_2}_{\text{unexplained part}}$$

the structural part becomes:

$$\begin{aligned}\overline{w}_1 - \overline{w}_2^* =& p_{c_1}\overline{w}_{c_1} + (1-p_{c_1})\overline{w}_{nc_1} - p_{c_2}^*\overline{w}_{c_2}^* - (1-p_{c_2}^*)\overline{w}_{nc_2}^* \\ =& \underbrace{(\overline{w}_{c_1} - \overline{w}_{c_2}^*)p_{c_2}^*}_{\text{executives}} + \underbrace{(\overline{w}_{nc_1} - \overline{w}_{nc_2}^*)(1-p_{c_2}^*)}_{\text{non executives}} + \underbrace{(\overline{w}_{c_1} - \overline{w}_{nc_1})(p_{c_1} - p_{c_2}^*)}_{\text{selection}}\end{aligned}$$

and the unexplained part becomes:

$$\begin{aligned}\overline{w}_2^* - \overline{w}_2 =& p_{c_2}^*\overline{w}_{c_2}^* + (1-p_{c_2}^*)\overline{w}_{nc_2}^* - p_{c_2}\overline{w}_{c_2} - (1-p_{c_2})\overline{w}_{nc_2} \\ =& \underbrace{(\overline{w}_{c_2}^* - \overline{w}_{c_2})p_{c_2}^*}_{\text{executives}} + \underbrace{(\overline{w}_{nc_2}^* - \overline{w}_{nc_2})(1-p_{c_2}^*)}_{\text{non executives}} + \underbrace{(\overline{w}_{c_2} - \overline{w}_{nc_2})(p_{c_2}^* - p_{c_2})}_{\text{selection}}\end{aligned}$$

$\overline{w}_{c_2}^*$ is estimated as the mean executive wage, conditional on being an executive, for those who would actually be executives. It is computed on the whole sample of population 2 using as weights the estimated probability of being an executive according to the model followed by population 1.

$$\overline{w}_{c_2}^* = \sum_{i=1}^{n} \frac{\Phi(Z_{2i}\hat{\gamma}_1)}{\sum_{i=1}^{n}\Phi(Z_{2i}\hat{\gamma}_1)} \left(X_{c_{2i}}\hat{\beta}_{c_1} + \hat{\rho}_{c_1}\hat{\sigma}_{c_1}\frac{\varphi(Z_{2i}\hat{\gamma}_1)}{\Phi(Z_{2i}\hat{\gamma}_1)} \right)$$

We do the same for $\overline{w}_{nc_2}^*$:

$$\overline{w}_{nc_2}^* = \sum_{i=1}^{n} \frac{1-\Phi(Z_{2i}\hat{\gamma}_1)}{\sum_{i=1}^{n}[1-\Phi(Z_{2i}\hat{\gamma}_1)]} \left(X_{nc_{2i}}\hat{\beta}_{nc_1} - \hat{\rho}_{nc_1}\hat{\sigma}_{nc_1}\frac{\varphi(Z_{2i}\hat{\gamma}_1)}{1-\Phi(Z_{2i}\hat{\gamma}_1)} \right)$$

$p_{c_2}^*$ is estimated as the mean estimated probability of being an executive according to the model followed by population 1 .

$$p_{c_2}^* = \overline{\Phi(Z_2\hat{\gamma}_1)}$$

The choice of these expressions is explained in appendix B.

3.5 Link with Neuman and Oaxaca's Decompositions

Neuman and Oaxaca (2004a and 2004b) propose different ways to deal with the inverse Mills ratios when correcting for selectivity. One of them consists in incorporating them inside the explained and unexplained part so that the

"selectivity" term disappears. This approach is in fact quite close to the one we use in this paper.

Indeed, defining $\hat{\lambda}$ as the mean of the inverse Mills' ratios, and $\hat{\lambda}_2^0$ such that $\hat{\lambda}_2^0 = \overline{\frac{\varphi(Z_2\hat{\gamma}_1)}{\Phi(Z_2\hat{\gamma}_1)}}$, Neuman and Oaxaca's decomposition can be written as:

$$\begin{aligned}
\overline{w}_1 - \overline{w}_2 =& \underbrace{(\overline{X}_1 - \overline{X}_2)\hat{\beta}_1 + \hat{\theta}_1(\hat{\lambda}_1 - \hat{\lambda}_2^0)}_{\text{structural part}} \\
&+ \underbrace{\overline{X}_2(\hat{\beta}_1 - \hat{\beta}_2) + \hat{\theta}_1(\hat{\lambda}_2^0 - \hat{\lambda}_2) + (\hat{\theta}_1 - \hat{\theta}_2)\hat{\lambda}_2}_{\text{unexplained part}} \\
=& \underbrace{(\overline{X}_1 - \overline{X}_2)\hat{\beta}_1 + \hat{\theta}_1(\hat{\lambda}_1 - \hat{\lambda}_2^0)}_{\text{structural part}} \\
&+ \underbrace{\overline{X}_2(\hat{\beta}_1 - \hat{\beta}_2) + \hat{\theta}_1\hat{\lambda}_2^0 - \hat{\theta}_2\hat{\lambda}_2}_{\text{unexplained part}}
\end{aligned}$$

That is, noticing that $\overline{X}_k\hat{\beta}_k + \hat{\theta}_k\hat{\lambda}_k = \overline{w}_k$ (observed mean on the sample)[2], we find:

$$\begin{aligned}
\overline{w}_1 - \overline{w}_2 =& \underbrace{\overline{w}_1 - (\overline{X}_2\hat{\beta}_1 + \hat{\theta}_1\hat{\lambda}_2^0)}_{\text{structural part}} \\
&+ \underbrace{(\overline{X}_2\hat{\beta}_1 + \hat{\theta}_1\hat{\lambda}_2^0) - \overline{w}_2}_{\text{unexplained part}}
\end{aligned}$$

with $\overline{X}_2\hat{\beta}_1 + \hat{\theta}_1\hat{\lambda}_2^0$ corresponding to $\overline{w}_2^*$ (depending on the weights used in the computation of the means). Contrary to Neuman and Oaxaca, we compute the mean on the whole population and this mean is weighted by the probability of being an executive (resp. non-executive), so that our counterfactual corresponds to the conditional mean for those who would actually be executives (resp. non-executives).

[2]This equality "geometrically" holds in the case of a two-stage estimation with OLS in the second stage. It holds only in terms of expectations when using maximum likelihood.

4 Results

4.1 Estimations and Specifications

The model was estimated on all six sub-populations using both maximum likelihood and two-step Heckman estimation methods. The dependent variable is always the log of total annual compensations.

We specified two different models. First we use a "full specification" which contains as covariates of the wage equations: labor force experience (linear and squared), firm seniority (linear and squared), diploma dummies (six levels), a part-time dummy, a fixed-term contract dummy, economic activity dummies (nine groups), size of the firm dummies (five groups), and three dummies for union related items (presence of a staff delegate, presence of a union delegate and collective pay agreement).

In the selection equation we put three more dummy variables related to family status and used as exclusion variables (couple without children, single with children and couple with children).

The second model (referred to as "partial specification") has the same individual variables but none of the firm, economic activity and union related dummies. This is supposed to check for the sensitivity of the results due to potential segregation into places, or economic activities.

Presented estimates correspond only to those computed under the full specification with maximum likelihood.

For the decompositions on the other hand, we present the results obtained with "full" and "partial" specifications along with the results obtained with both estimation methods.

4.2 General Comments on the Estimates

Since separate estimations on executives and non-executives are not that common, we can start with a few simple comments on the differences in the estimates computed on both groups (Tables 5 to 10).

If we focus first on French workers with both parents born in France, we can see the difference in returns to firm seniority and labor force experience. Returns to experience are much higher for executives but their returns to firm seniority are very close to zero. This difference does not appear among non-executives and the returns are equally shared between those two factors.

Here, labor force experience can be seen as a proxy for the portable part of human capital due to on-the-job training, and firm seniority as a proxy for the firm-specific one.

Executive abilities that are valued on the labor market are therefore the portable ones (probably like managerial abilities, reactiveness,...), while non-executive abilities valued on the labor market are a mix of portable and specific ones (probably like the ability to use certain types of machines or firm-specific processes).

It is quite interesting to look at the returns to experience and seniority among workers of different gender and national origin. Although many coefficients are not significantly different from zero due to a lack of observations in the small sub-populations, there are still a few key results showing up in the estimations.

There is an interesting difference concerning executive men with two parents born in Maghreb. Their returns to firm seniority is significantly different from zero. This might be related to some statistical discrimination: it might mean that for this sub-population, the employers' evaluation would be relatively more related to what they have seen with their own eyes instead of relying only on general labor force experience.

The same kind of pattern shows up for non-executive men with Southern European origin. Their returns firm seniority are significantly positive but their returns to labor force experience are not significantly different from zero.

The residual variance is also higher among executives than among non-executives (except for women with Southern European origin) and the differential is larger among men than among women. Indeed men usually reach higher managerial positions than women.

Among executives, only post-graduate degrees have a significantly positive effect on wages, relative to other diplomas. For the non-executives and in the selection equation, on the other hand, the coefficients are increasing in the number of years of schooling corresponding to the diploma.

Part-timers and workers on a fixed-term contract earn less ceteris paribus, and their probability of being an executive is also smaller.

The usual finding that wages increase with the size of the firm seems relatively true for non-executives but far less relevant for executives. This is probably due to the fact that executives in smaller businesses are almost

only the top managers, whereas in bigger businesses, there is a wider range of executives.

Interpretation of the union related items does not seem really obvious. Collective pay agreements seem more favorable to executives than non-executives. Presence of a union delegate on the other hand seems better for non-executives than executives.

For the family status dummies, we chose "single without children" as the reference. All other dummies are positively correlated with the fact of being an executive. There is always at least one of the estimates which is significantly different from zero for men, but it is not always the case for women. These dummies probably show correlations with unobservable variables influencing the fact of being an executive, rather than mere causality.

4.3 Comments on the Decompositions

As we use business survey data, we only observe people inside the labor force and therefore, we cannot study any selection bias at the entry level. Meurs, Pailhé, Simon (2005) and ongoing work by Aeberhardt, Fougère, Pouget and Rathelot indicate that there are barriers to entrance in the labor market, related to national origin.

Our study focuses therefore more on the upper tail of the distribution and our findings concerning access to hierarchical positions and executive wage differentials are hopefully less prone to errors due to selection bias at the lower tail of the distribution.

Tables 11 and 12 present the results of the decompositions for the full and restricted sets of covariates. Table 13 presents confidence intervals of the decompositions using parametric bootstrap and the full set of covariates.

The first general finding is that we find little or no wage discrimination regarding national origin. Wage gaps, whether gross or residual, are always much larger between genders than between people of different national origins.

For instance the gross wage gap between French men with both parents born in France and those with both parents born in Maghreb is 8.4 % whereas it amounts to 29.1 % between men and women with two parents born in France.

We often explain more than the actual gap among non-executives, which is quite thought-provoking when trying to study discrimination. Although

conclusions on this particular case are still quite mixed, it seems likely that we are facing a selection issue. There may be entry discrimination which would lead to see only relatively better non-executives entering the labor force or remaining in it. If this selection is based on unobservable characteristics which is quite likely to happen on the lower tail of the distribution, we may end up with people whose observable characteristics are not better than their counterparts with French origin, but who would be paid more based on their unobserved characteristics. This could happen for instance if, among the potentially discriminated workers, only those with really high motivation can manage to be employed, and have to show real motivation to keep their job. This idea is corroborated by the fact that men of Maghrebian origin have a higher part of their salary made of bonuses related to job constraints than those with French origin.

Among male executives, we explain all the wage differential between workers with French and Maghrebian origins. The difference in the share of executives is 5.2 percentage points and less than 1 percentage point remains unexplained.

Decompositions of wage differentials between women of French and Maghrebian origins and between French and Southern European origins are to be considered cautiously due to a relatively small amount of female executives. In the France-Maghreb comparison, it seems that there may be relatively strong access barriers to executive positions and that wage gaps depend on unobservable characteristics.

Even if it is not the primary goal of our study, we decided to test our model on the male-female wage differential in order to compare our findings to those of other studies. Gender results are nevertheless sensitive to the choice of the benchmark population because we deal with populations of comparable sizes.

Our findings are quite insensitive to national origin. About half of the wage gap among non-executives is explained, whereas most of the gap among executives and the share of executives are unexplained. These results are comparable to those of Leclair and Petit (2004)

It seems that there is more evidence of gender discrimination than of national origin discrimination. Moreover, gender discrimination seems to have a "common structure", whatever the workers' origin.

5 Conclusion

This paper attempts to explain national origin wage differentials in France. Our data come from a matched employer-employee wage survey performed in 2002. Business survey data are matched to many individual-level variables collected in a household survey. The sample of French workers is decomposed into several sub-samples: within each gender, a distinction is made according to the parents' birthplace (France, Maghreb and Southern Europe).

Selectivity bias due to unemployment cannot be taken into account with business survey data. Nevertheless, non participation matters: children of immigrants have withdrawn from the labor force at rates that exceed those of comparably skilled French workers whose both parents were born in France. So that our results are conditional on being in the labor force. The French workers of foreign origin may have overcome more demanding barriers at the entry level, and therefore this differential selection may lead to an underestimation of wage discrimination.

We perform a switching regression model of wage determination and occupational employment. Our findings seem quite robust to model specification and estimation methods. Our results suggest that wage differentials mostly reflect differences in the type of jobs taken up by individuals, according to their experience, background and education. This leads us to favor an interpretation in terms of a certain degree of occupational segregation, rather than mere wage discrimination.

Our model also allows us to compare the returns to labor force experience and firm seniority among executives and non-executives. The fact that French executives with both parents born in Maghreb have significant returns to firm seniority may be a sign of statistical discrimination: the employers' evaluation seems to be more related to what they have seen with their own eyes than to general labor force experience.

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A National origin in the sample

In this paper, we focus on French workers whose both parents were born abroad. Indeed, the information included in the personal questionnaire of SES 2002 allows to know the citizenship of the individual as well as the country of birth of the parents; but there is no information concerning the country of birth of the individual and the citizenship at birth of the parents.

We can't really work on the second generation of immigrants, because the sample should be restricted to the individuals who were born in France with at least one (or two) parents who had a foreign citizenship at birth and who were born abroad. Here there are two flaws. First we can't control if the parents were born abroad but were French nationals. Second, we don't know if the individual was born in France, or emigrated to France and acquired French citizenship later.

Theoretically it is possible to know in the survey whether French individuals were French at birth or became French later. Unfortunately this piece of information does not seem to be well answered and in any case it would not be enough to conclude.

In short, there are different ways to be or become French. First, you are French at birth if one of your parents was French or if you were born in France with at least one parent who was also born in France. Second, you can become French either automatically when you turn 18 and you were born in France, or by declaration if you marry a French citizen, or by decree if your request to the French administration is accepted.

That means that theoretically we should only keep the individuals who were not French at birth, because the second generation with both parents who were foreigners at birth became French when they turned 18. But other studies show that foreigners who were born in France declare pretty much randomly either that they were French at birth or that they became French later. These questions are more important for certain origins than others, especially all the countries of the former colonial empire.

In order to better know the exact composition of the sample, we have to rely on other studies that can deal with the questions of the country of birth of the individual and the citizenship at birth of the parents. Estimations on the Education and Vocational Qualification survey (FQP) give that among French citizens whose both parents were born in Maghreb, about 50 % were

also born in Maghreb and about 40 % had both parents French at birth. Among those whose both parents were born in southern Europe, about two third were born in France and about 90 % had both parents with southern European citizenship at birth. These estimations are consistent with those of Borrel and Simon (2005) based on the family history survey (EHF). They find that among people born in France with two parents born in Maghreb, about 51 % are second generation immigrants.

B Explanation for the choice of $\overline{w}^*_{c_2}$ and $\overline{w}^*_{nc_2}$

We assume the model followed by population 1 to be such that:

$$\begin{cases} w_{c_1} = X_{c_1}\beta_{c_1} + u_{c_1} & \text{observed if and only if } C_1 = 1 \\ w_{nc_1} = X_{nc_1}\beta_{nc_1} + u_{nc_1} & \text{observed if and only if } C_1 = 0 \\ C_1 = \mathbb{1}_{\{Z_1\gamma + \varepsilon_1 > 0\}} & \text{dummy for executives} \end{cases}$$

with

$$\begin{pmatrix} u_{c_1} \\ u_{nc_1} \\ \varepsilon_1 \end{pmatrix} \sim \mathcal{N}\left(\begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} \sigma^2_{c_1} & 0 & \rho_{c_1}\sigma_{c_1} \\ 0 & \sigma^2_{nc_1} & \rho_{nc_1}\sigma_{nc_1} \\ \rho_{c_1}\sigma_{c_1} & \rho_{nc_1}\sigma_{nc_1} & 1 \end{pmatrix} \right)$$

Now, the goal is to simulate the proportion of executives in population 2, if they had the same returns to observables as population 1, as well as their mean wage, conditional on being an executive (resp. non-executive) for the individuals who would actually be executives (resp. non-executives), still with the same returns to observables as population 1.

For a given individual, the counterfactual terms $\mathbb{E}_1(w_{c_{2i}} \mid C_{2i} = 1)$ and $\mathbb{E}_1(w_{nc_{2i}} \mid C_{2i} = 0)$ can be consistently estimated by:

$$X_{c_{2i}}\hat{\beta}_{c_1} + \hat{\rho}_{c_1}\hat{\sigma}_{c_1}\frac{\varphi(Z_{2i}\hat{\gamma}_1)}{\Phi(Z_{2i}\hat{\gamma}_1)}$$

and

$$X_{nc_{2i}}\hat{\beta}_{nc_1} - \hat{\rho}_{nc_1}\hat{\sigma}_{nc_1}\frac{\varphi(Z_{2i}\hat{\gamma}_1)}{1 - \Phi(Z_{2i}\hat{\gamma}_1)}$$

The next question is to know over which population we want to integrate these expected wages. In fact, since we want to simulate a global counterfactual situation, it seems appropriate to consider the expected means for the individuals who would actually be in each given state (executives and non-executives). These means can be consistently estimated as:

$$\overline{w}^*_{c_2} = \sum_{i=1}^{n} \frac{\Phi(Z_{2i}\hat{\gamma}_1)}{\sum_{i=1}^{n}\Phi(Z_{2i}\hat{\gamma}_1)} \left(X_{c_{2i}}\hat{\beta}_{c_1} + \hat{\rho}_{c_1}\hat{\sigma}_{c_1}\frac{\varphi(Z_{2i}\hat{\gamma}_1)}{\Phi(Z_{2i}\hat{\gamma}_1)} \right)$$

and

$$\overline{w}^*_{nc_2} = \sum_{i=1}^{n} \frac{1-\Phi(Z_{2i}\hat{\gamma}_1)}{\sum_{i=1}^{n}[1-\Phi(Z_{2i}\hat{\gamma}_1)]} \left(X_{nc_{2i}}\hat{\beta}_{nc_1} - \hat{\rho}_{nc_1}\hat{\sigma}_{nc_1}\frac{\varphi(Z_{2i}\hat{\gamma}_1)}{1-\Phi(Z_{2i}\hat{\gamma}_1)} \right)$$

The explanation will be given for the first expression only, but the calculation for the second one is very similar.

In order to justify the expression of $\overline{w}^*_{c_2}$, we need to prove that, for the reference population, this weighted average corresponds to the average of the observed wages of executives (calculated only on the individuals who are actually executives). In other words, we need to show that:

$$\frac{\sum_{i=1}^{N} w_{c_i}\mathbb{1}_{\{C_i=1\}}}{\sum_{i=1}^{N} C_i} \underset{\infty}{\sim} \frac{1}{\sum_{i=1}^{N}\Phi(Z_i\gamma)} \sum_{i=1}^{N}\Phi(Z_i\gamma)\left[X_{c_i}\beta_c + \rho_c\sigma_c\frac{\varphi(Z_i\gamma)}{\Phi(Z_i\gamma)} \right]$$

where the first term corresponds to the mean wage of executives calculated on the subsample of individuals who are actually executives, and the second term is the expression we will use, to estimate it on any other subpopulation (including executives and non-executives).

Indeed, because $\mathbb{E}(C_i) = \Phi(Z_i\gamma)$, using Lindberg-Feller central limit theorem with unequal variances gives:

$$\frac{1}{N}\sum_{i=1}^{N} C_i \underset{\infty}{\sim} \frac{1}{N}\sum_{i=1}^{N}\Phi(Z_i\gamma)$$

and in the same way,

$$\begin{aligned}\mathbb{E}(w_{c_i}\mathbb{1}_{\{C_i=1\}}) &= \mathbb{P}(C_i=1)\mathbb{E}(w_{c_i}\mathbb{1}_{\{C_i=1\}}|C_i=1) + \underbrace{\mathbb{P}(C_i=0)\mathbb{E}(w_{c_i}\mathbb{1}_{\{C_i=1\}}|C_i=0)}_{=0} \\ &= \mathbb{P}(C_i=1)\mathbb{E}(w_{c_i}|C_i=1) \\ &= \Phi(Z_i\gamma)\left[X_{c_i}\beta_c + \rho_c\sigma_c\frac{\varphi(Z_i\gamma)}{\Phi(Z_i\gamma)}\right]\end{aligned}$$

which gives:

$$\frac{1}{N}\sum_{i=1}^{N} w_{c_i}\mathbb{1}_{\{C_i=1\}} \underset{\infty}{\simeq} \frac{1}{N}\sum_{i=1}^{N}\Phi(Z_i\gamma)\left[X_{c_i}\beta_c + \rho_c\sigma_c\frac{\varphi(Z_i\gamma)}{\Phi(Z_i\gamma)}\right]$$

finally, the ratios are also equivalent, and:

$$\frac{\sum_{i=1}^{N} w_{c_i}\mathbb{1}_{\{C_i=1\}}}{\sum_{i=1}^{N} C_i} \underset{\infty}{\simeq} \frac{1}{\sum_{i=1}^{N}\Phi(Z_i\gamma)}\sum_{i=1}^{N}\Phi(Z_i\gamma)\left[X_{c_i}\beta_c + \rho_c\sigma_c\frac{\varphi(Z_i\gamma)}{\Phi(Z_i\gamma)}\right]$$

C Tables

Table 1: Descriptive Statistics for all Six Sub-Populations

	France		Maghreb		Southern Europe	
	Men (24356)	Women (13669)	Men (858)	Women (499)	Men (806)	Women (510)
Total Annual Gross Wage[a] (€)						
Mean	30 826	23 094	28 477	23 467	27 575	21 812
First Quartile	19 667	15 347	18 469	15 341	19 733	14 428
Median Wage	25 163	20 079	23 591	19 460	24 306	19 668
Third Quartile	34 617	27 441	32 491	27 561	31 321	25 874
Wage Decomposition[b] (%)						
Base Gross Wage	78.7	79.7	78.2	80.8	78.6	78.8
Over Time	1.3	0.7	1.5	0.7	1.7	0.8
Total Bonuses	13.8	12.2	13.2	11.1	14.1	11.8
Fixed Term Bonuses	5.2	5.5	4.6	5.3	5.1	5.7
Bonuses Related to Job Constraints	1.9	0.5	2.4	0.6	1.7	0.5
Bonuses Related to Productivity	3.0	2.5	2.9	1.8	2.9	2.2
Bonuses Related to Seniority	2.0	2.1	1.7	1.8	2.4	2.0
Other Bonuses	1.8	1.5	1.6	1.7	1.9	1.5
Profit Sharing	0.5	0.3	0.5	0.2	0.4	0.3
Non Wage Benefits	2.8	3.7	2.4	3.7	2.5	6.0
Days of Absence	0.8	1.7	1.3	2.1	1.2	1.2
Other Parts of the Salary	2.0	1.8	2.9	1.4	1.5	1.1

Reading: The median wage for French men whose both parents were born in France is 25 163 . Their share of fixed-term bonuses amounts on average to 5.2 % of their total gross wage (including non wage benefits and profit sharing)
Source: French Structure of Earnings Survey (2002)

[a] including non wage benefits and profit sharing
[b] share of the total annual gross wage (in %)

Table 2: Descriptive Statistics for Each Population (%)

	France		Maghreb		Southern Europe	
	Men (24356)	Women (13669)	Men (858)	Women (499)	Men (806)	Women (510)
Age						
24 and less	5.3	7.3	4.8	7.9	4.7	5.1
25 to 29	11.0	14.1	11.6	14.4	9.9	16.2
29 to 34	16.3	17.7	16.3	13.7	14.5	13.4
35 to 39	15.9	16.2	18.2	23.4	16.1	13.9
40 to 44	15.6	14.3	12.8	17.0	15.1	19.3
45 to 49	14.1	13.0	15.4	11.3	16.7	12.5
50 to 54	13.6	11.2	12.7	8.5	13.2	11.6
55 and over	8.2	6.3	8.1	3.8	9.8	7.9
Professional Occupation						
Executive	21.2	13.4	16.1	9.9	11.3	11.1
Intermediate	25.0	26.4	24.6	25.6	30.0	25.0
Employee	8.6	40.8	13.3	49.2	8.1	35.1
Blue Collar	45.2	19.4	46.0	15.3	50.6	28.8
Employment Location						
Paris and Suburbs	20.5	24.5	37.4	38.4	26.6	31.8
Bassin Parisien	17.7	17.1	8.0	5.4	14.8	11.4
North	7.8	5.9	3.5	1.1	2.1	5.9
East	9.4	9.1	5.5	6.0	10.8	7.8
West	16.1	16.4	4.2	1.6	1.8	1.1
South-West	8.8	8.3	8.6	5.6	8.7	11.5
Center-East	12.6	10.9	11.3	15.8	16.0	17.3
Mediterranean Area	7.0	7.9	21.5	26.0	19.1	13.3
Diploma						
None	11.9	10.4	23.1	16.0	22.1	20.4
5th Grade	6.2	5.3	4.5	1.8	6.1	3.8
Junior High School	6.2	7.4	6.7	9.9	5.3	8.9
Vocational Degree	36.6	27.1	32.4	21.2	43.0	26.2
Professional High School	10.9	11.7	7.8	15.4	8.1	10.9
General High School	4.8	8.9	7.1	11.4	2.3	8.6
Bachelor's Degree	11.9	18.0	9.7	12.9	8.6	15.6
Post Graduate Degree	11.5	11.2	8.6	11.5	4.6	5.6
Full-Time / Part-Time						
Full-Time	93.6	74.7	90.7	76.6	91.6	71.4
Part-Time	6.4	25.3	9.3	23.4	8.4	28.6
Type of Employment Contract						
Fixed Term	1.8	3.3	2.3	6.5	0.4	2.4
Infinite Duration	96.8	95.6	96.3	91.6	97.8	95.7
Other	1.4	1.1	1.4	1.9	1.7	1.9
Economic Activity						
Manufacture of food	3.2	4.3	1.4	1.8	0.7	3.4
Manufacture of consumers goods	4.4	7.8	3.9	5.8	4.7	8.8
Manufacture of motor vehicles	2.2	0.9	1.7	0.3	2.0	2.4
Manufacture of capital goods	8.6	4.1	8.5	1.7	10.9	5.0
Manufacture of intermediate goods	15.9	9.0	11.2	10.0	19.6	13.5
Energy	4.7	1.1	3.4	1.2	3.2	0.5
Construction	8.5	2.3	10.0	1.2	16.9	1.5
Trade	15.6	24.9	14.2	32.7	15.0	23.8
Transports	16.0	8.3	18.1	2.9	11.5	6.7
Financial activities	4.5	9.5	3.1	8.7	1.6	7.4
Real estate activities	1.0	2.4	1.5	2.9	0.7	2.9
Services to businesses	12.9	21.6	18.0	24.7	11.2	21.1
Hotels and Restaurants	2.4	3.8	4.9	6.0	2.0	3.1

Note: All partial columns sum to 100 %
Reading: Among French men whose both parents were born in France, 93.6 % work Full-Time and 6.4 % work Part-Time.
Source: French Structure of Earnings Survey (2002)

Table 3: Differences in Mean Wages and in the Share of Executives (%)

	Overall	Non Executives	Executives	Share of Executives
Men				
France-Maghreb	7.6	3.1	1.6	5.2
France-Southern Europe	10.5	0.1	3.2	10.0
Women				
France-Maghreb	-1.6	-2.2	-18.5	3.5
France-Southern Europe	5.6	2.2	7.9	2.3
Men-Women				
France	25.1	17.7	22.0	7.9
Maghreb	17.6	13.2	6.0	6.2
Southern Europe	20.9	19.4	25.8	0.2

Reading: Executive French Men whose both parents were born in Maghreb earn on average 1.6 % less than their counterparts with both parents born in France, and the difference in the share of executives among them amounts to 5.2 percentage points. The computed statistics are respectively $100 \times (\overline{w}_1 - \overline{w}_2)/\overline{w}_1$ *and* $p_1 - p_2$*, where, following the exemple,* 1 *would represent France and* 2 *would represent Maghreb.*
Source: French Structure of Earnings Survey (2002)

Table 4: Differences in Mean Log-Wages and in the Share of Executives (%)

	Overall	Non Executives	Executives	Share of Executives
Men				
France-Maghreb	8.4	4.4	4.7	5.2
France-Southern Europe	8.0	0.3	0.9	10.0
Women				
France-Maghreb	1.7	0.8	-16.8	3.5
France-Southern Europe	6.9	5.1	5.5	2.3
Men-Women				
France	29.1	22.8	24.5	7.9
Maghreb	22.4	19.2	3.0	6.2
Southern Europe	27.9	27.6	29.1	0.2

Reading: Executive French men whose both parents were born in Maghreb earn on average 4.7 % less than their counterparts with both parents born in France, and the difference in the share of executives among them amounts to 5.2 percentage points. The computed statistics are respectively $100 \times (\overline{\log(w_1) - \log(w_2)})$ *and* $p_1 - p_2$*, where, following the exemple,* 1 *would represent France and* 2 *would represent Maghreb.*
Source: French Structure of Earnings Survey (2002)

Table 5: Estimation on French Men Whose Both Parents Were Born in France

	Probit		Non Executives		Executives	
	Coefficients	Std. Err.	Coefficients	Std. Err.	Coefficients	Std. Err.
Intercept	-2.410	(0.070)	9.933	(0.011)	10.443	(0.048)
Experience in Labor Force	0.064	(0.005)	0.017	(8.7E-4)	0.036	(0.002)
Experience Squared (/100)	-0.068	(0.012)	-0.027	(0.002)	-0.051	(0.005)
Firm Seniority	0.005	(0.005)	0.013	(8.3E-4)	7.4E-5	(0.002)
Firm Seniority Squared	1.8E-4	(1.3E-4)	-1.8E-4	(2.4E-5)	-7.2E-5	(5.9E-5)
Diploma						
5th Grade and less	-1.317	(0.046)	-0.211	(0.008)	0.005	(0.037)
Junior High School	-0.707	(0.053)	-0.121	(0.010)	-0.037	(0.033)
Vocational Degree	-0.963	(0.035)	-0.107	(0.007)	0.013	(0.025)
Completed High School	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Bachelor's Degree	0.647	(0.036)	0.126	(0.009)	-0.027	(0.019)
Post Graduate Degree	2.208	(0.043)	0.140	(0.022)	0.140	(0.027)
Family Status						
Single without Children	Ref.	Ref.	-	-	-	-
Couple without Children	0.328	(0.038)	-	-	-	-
Single with Children	0.221	(0.077)	-	-	-	-
Couple with Children	0.414	(0.035)	-	-	-	-
Part-Time	-0.131	(0.054)	-0.460	(0.008)	-0.365	(0.025)
Fixed Term Contract	-0.074	(0.112)	-0.069	(0.015)	-0.205	(0.051)
Economic Activity						
Manufacture of Consumer Goods	0.077	(0.054)	-0.027	(0.009)	0.051	(0.025)
Manufacture of Capital Goods	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Manufacture of Intermediate Goods	0.017	(0.044)	-0.022	(0.007)	-0.017	(0.020)
Construction	0.167	(0.054)	-0.051	(0.009)	0.008	(0.027)
Trade and Hotels and Restaurants	0.274	(0.042)	-0.062	(0.007)	0.013	(0.020)
Transports	0.007	(0.046)	-0.035	(0.007)	0.038	(0.024)
Financial Activities	0.523	(0.052)	0.032	(0.013)	0.036	(0.022)
Real Estate Activities	0.195	(0.114)	-0.058	(0.022)	-0.026	(0.048)
Services to Businesses	0.489	(0.041)	-0.068	(0.009)	-0.073	(0.018)
Size of the Firm						
10-49	0.097	(0.038)	-0.099	(0.007)	-0.036	(0.018)
50-249	0.083	(0.035)	-0.097	(0.006)	-0.002	(0.016)
250-499	-0.089	(0.044)	-0.057	(0.007)	0.063	(0.020)
500-999	0.033	(0.044)	-0.007	(0.008)	0.051	(0.019)
1000 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Union Related Items						
Presence of a Staff Delegate	0.118	(0.034)	-0.014	(0.006)	-0.045	(0.016)
Presence of a Union Delegate	-0.068	(0.032)	0.039	(0.006)	0.018	(0.015)
Collective Pay Agreement	-0.003	(0.037)	-0.027	(0.007)	0.067	(0.016)
Sigma	1.000	-	0.282	(0.002)	0.395	(0.006)
Correlation with Probit Error Term	-	-	-0.276	(0.040)	-0.497	(0.041)

Note: The columns correspond to the estimates of the three equations of the model and their respective standard error.
Reading: The estimated coefficient of "experience in the labor force" is 0.064 in the selection equation (probit), 0.017 among the non-executives and 0.036 among the executives.
Source: French Structure of Earnings Survey (2002)

Table 6: Estimation on French Women Whose Both Parents Were Born in France

	Probit		Non Executives		Executives	
	Coefficients	Std. Err.	Coefficients	Std. Err.	Coefficients	Std. Err.
Intercept	-2.301	(0.114)	9.892	(0.020)	10.145	(0.146)
Experience in Labor Force	0.051	(0.007)	0.014	(0.001)	0.038	(0.005)
Experience Squared (/100)	-0.024	(0.018)	-0.023	(0.003)	-0.057	(0.010)
Firm Seniority	0.022	(0.007)	0.014	(0.001)	0.005	(0.004)
Firm Seniority Squared	-4.5E-4	(1.9E-4)	-2.0E-4	(3.7E-5)	-1.2E-4	(1.2E-4)
Diploma						
5th Grade and less	-1.121	(0.079)	-0.276	(0.011)	-0.141	(0.084)
Junior High School	-0.619	(0.082)	-0.138	(0.013)	-0.100	(0.069)
Vocational Degree	-0.619	(0.055)	-0.115	(0.009)	-0.136	(0.050)
Completed High School	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Bachelor's Degree	0.577	(0.050)	0.084	(0.010)	0.047	(0.041)
Post Graduate Degree	1.977	(0.056)	0.096	(0.020)	0.287	(0.082)
Family Status						
Single without Children	Ref.	Ref.	-	-	-	-
Couple without Children	0.063	(0.050)	-	-	-	-
Single with Children	0.075	(0.070)	-	-	-	-
Couple with Children	0.045	(0.046)	-	-	-	-
Part-Time	-0.344	(0.046)	-0.487	(0.007)	-0.442	(0.029)
Fixed Term Contract	-0.373	(0.133)	-1.7E-4	(0.017)	0.015	(0.089)
Economic Activity						
Manufacture of Consumer Goods	-0.064	(0.082)	-0.067	(0.015)	0.008	(0.046)
Manufacture of Capital Goods	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Manufacture of Intermediate Goods	-0.259	(0.089)	-0.078	(0.016)	-0.033	(0.054)
Construction	-0.337	(0.132)	-0.056	(0.023)	-0.078	(0.078)
Trade and Hotels and Restaurants	-0.216	(0.076)	-0.098	(0.014)	-0.068	(0.044)
Transports	-0.002	(0.085)	-0.021	(0.017)	-0.134	(0.049)
Financial Activities	-0.074	(0.079)	0.074	(0.016)	0.012	(0.043)
Real Estate Activities	-0.180	(0.126)	-0.025	(0.024)	-0.015	(0.074)
Services to Businesses	0.101	(0.073)	-0.095	(0.015)	-0.011	(0.039)
Size of the Firm						
10-49	0.062	(0.051)	-0.136	(0.009)	-0.161	(0.031)
50-249	0.052	(0.050)	-0.114	(0.009)	-0.059	(0.029)
250-499	0.133	(0.061)	-0.035	(0.012)	-0.027	(0.035)
500-999	-0.065	(0.062)	-0.033	(0.012)	0.012	(0.035)
1000 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Union Related Items						
Presence of a Staff Delegate	0.208	(0.047)	0.012	(0.009)	-0.001	(0.030)
Presence of a Union Delegate	-0.111	(0.046)	0.007	(0.009)	0.003	(0.027)
Collective Pay Agreement	-0.052	(0.050)	-0.059	(0.009)	-0.049	(0.028)
Sigma	1.000	-	0.331	(0.003)	0.395	(0.007)
Correlation with Probit Error Term	-	-	-0.417	(0.046)	0.047	(0.144)

Note: The columns correspond to the estimates of the three equations of the model and their respective standard error.
Reading: The estimated coefficient of "experience in the labor force" is 0.051 in the selection equation (probit), 0.014 among the non-executives and 0.038 among the executives.
Source: French Structure of Earnings Survey (2002)

Table 7: Estimation on French Men Whose Both Parents Were Born in Maghreb

	Probit		Non Executives		Executives	
	Coefficients	Std. Err.	Coefficients	Std. Err.	Coefficients	Std. Err.
Intercept	-3.135	(0.432)	9.963	(0.058)	8.407	(0.265)
Experience in Labor Force	0.066	(0.034)	0.012	(0.004)	0.056	(0.017)
Experience Squared (/100)	-0.079	(0.079)	-0.028	(0.010)	-0.059	(0.041)
Firm Seniority	0.052	(0.033)	0.023	(0.005)	0.042	(0.017)
Firm Seniority Squared	-9.7E-4	(9.7E-4)	-3.1E-4	(1.5E-4)	-0.001	(5.0E-4)
Diploma						
5th Grade and less	-1.301	(0.267)	-0.131	(0.035)	-0.173	(0.193)
Junior High School	-1.074	(0.391)	-0.216	(0.048)	-0.078	(0.254)
Vocational Degree	-0.740	(0.218)	-0.028	(0.033)	-0.074	(0.145)
Completed High School	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Bachelor's Degree	0.811	(0.239)	0.125	(0.048)	0.798	(0.134)
Post Graduate Degree	2.008	(0.261)	0.095	(0.096)	1.188	(0.136)
Family Status						
Single without Children	Ref.	Ref.	-	-	-	-
Couple without Children	0.243	(0.228)	-	-	-	-
Single with Children	-0.131	(0.403)	-	-	-	-
Couple with Children	0.440	(0.201)	-	-	-	-
Part-Time	0.338	(0.285)	-0.505	(0.037)	-0.859	(0.170)
Fixed Term Contract	0.009	(0.586)	-0.248	(0.069)	0.374	(0.318)
Economic Activity						
Manufacture of Consumer Goods	-0.051	(0.349)	0.119	(0.050)	-0.050	(0.233)
Manufacture of Capital Goods	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Manufacture of Intermediate Goods	-0.437	(0.319)	0.014	(0.040)	-0.136	(0.188)
Construction	-0.976	(0.483)	-0.063	(0.043)	-0.419	(0.282)
Trade and Hotels and Restaurants	0.270	(0.234)	-0.015	(0.038)	0.241	(0.132)
Transports	-0.147	(0.269)	0.069	(0.037)	0.314	(0.158)
Financial Activities	1.010	(0.320)	0.129	(0.096)	0.656	(0.155)
Real Estate Activities	0.426	(0.619)	-0.054	(0.088)	0.224	(0.332)
Services to Businesses	0.535	(0.250)	0.006	(0.042)	0.359	(0.132)
Size of the Firm						
10-49	-0.028	(0.247)	-0.146	(0.035)	0.021	(0.124)
50-249	0.455	(0.208)	-0.109	(0.031)	0.087	(0.109)
250-499	-0.110	(0.297)	-0.092	(0.043)	-0.044	(0.145)
500-999	0.342	(0.278)	-0.004	(0.040)	0.183	(0.144)
1000 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Union Related Items						
Presence of a Staff Delegate	0.213	(0.208)	-0.018	(0.031)	0.117	(0.111)
Presence of a Union Delegate	-0.444	(0.201)	-1.4E-4	(0.032)	-0.112	(0.104)
Collective Pay Agreement	0.514	(0.242)	-0.069	(0.030)	0.061	(0.136)
Sigma	1.000	-	0.264	(0.007)	0.488	(0.042)
Correlation with Probit Error Term	-	-	-0.069	(0.183)	0.953	(0.029)

Note: The columns correspond to the estimates of the three equations of the model and their respective standard error.
Reading: The estimated coefficient of "experience in the labor force" is 0.066 in the selection equation (probit), 0.012 among the non-executives and 0.056 among the executives.
Source: French Structure of Earnings Survey (2002)

Table 8: Estimation on French Women Whose Both Parents Were Born in Maghreb

	Probit		Non Executives		Executives	
	Coefficients	Std. Err.	Coefficients	Std. Err.	Coefficients	Std. Err.
Intercept	-2.026	(0.732)	9.822	(0.153)	10.826	(0.622)
Experience in Labor Force	0.083	(0.068)	0.014	(0.009)	0.044	(0.038)
Experience Squared (/100)	-0.190	(0.184)	-0.016	(0.023)	-0.060	(0.115)
Firm Seniority	-0.092	(0.067)	0.011	(0.009)	-0.010	(0.037)
Firm Seniority Squared	0.004	(0.002)	-1.1E-4	(3.0E-4)	-5.5E-5	(0.001)
Diploma						
5th Grade and less	-2.013	(1.861)	-0.133	(0.065)	0.538	(2.775)
Junior High School	0.530	(0.577)	-0.075	(0.080)	-0.385	(0.441)
Vocational Degree	0.466	(0.417)	-0.018	(0.062)	-0.172	(0.389)
Completed High School	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Bachelor's Degree	1.448	(0.420)	0.117	(0.073)	-0.195	(0.343)
Post Graduate Degree	2.603	(0.453)	0.111	(0.096)	-0.130	(0.398)
Family Status						
Single without Children	Ref.	Ref.	-	-	-	-
Couple without Children	0.069	(0.394)	-	-	-	-
Single with Children	0.449	(0.508)	-	-	-	-
Couple with Children	0.450	(0.357)	-	-	-	-
Part-Time	-0.959	(0.419)	-0.653	(0.052)	-0.178	(0.215)
Fixed Term Contract	-1.570	(0.793)	0.035	(0.087)	0.102	(0.658)
Economic Activity						
Manufacture of Consumer Goods	-1.200	(0.614)	-0.027	(0.152)	0.120	(0.325)
Manufacture of Capital Goods	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Manufacture of Intermediate Goods	-3.843	(1.001)	-0.262	(0.151)	0.510	(0.814)
Construction	-1.384	(2.357)	-0.116	(0.232)	-0.110	(1.745)
Trade and Hotels and Restaurants	-1.092	(0.529)	-0.209	(0.137)	-0.183	(0.249)
Transports	-2.187	(0.801)	-0.124	(0.174)	0.121	(0.659)
Financial Activities	-1.560	(0.611)	-0.145	(0.152)	0.010	(0.290)
Real Estate Activities	-2.976	(0.972)	-0.071	(0.175)	0.449	(0.762)
Services to Businesses	-0.933	(0.542)	-0.258	(0.139)	-0.105	(0.259)
Size of the Firm						
10-49	-0.193	(0.386)	-0.035	(0.068)	0.080	(0.244)
50-249	0.197	(0.389)	-0.066	(0.066)	0.126	(0.221)
250-499	0.289	(0.458)	-0.063	(0.078)	0.019	(0.257)
500-999	0.722	(0.529)	-0.087	(0.079)	-0.003	(0.225)
1000 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Union Related Items						
Presence of a Staff Delegate	-0.659	(0.348)	0.046	(0.058)	0.125	(0.225)
Presence of a Union Delegate	0.688	(0.303)	0.053	(0.055)	-0.089	(0.216)
Collective Pay Agreement	0.589	(0.353)	0.042	(0.061)	-0.090	(0.251)
Sigma	1.000	-	0.377	(0.016)	0.379	(0.080)
Correlation with Probit Error Term	-	-	-0.939	(0.055)	-0.612	(0.334)

Note: The columns correspond to the estimates of the three equations of the model and their respective standard error.
Reading: The estimated coefficient of "experience in the labor force" is 0.083 in the selection equation (probit), 0.014 among the non-executives and 0.044 among the executives.
Source: French Structure of Earnings Survey (2002)

Table 9: Estimation on French Men Whose Both Parents Were Born in Southern Europe

	Probit		Non Executives		Executives	
	Coefficients	Std. Err.	Coefficients	Std. Err.	Coefficients	Std. Err.
Intercept	-1.815	(0.446)	9.941	(0.065)	10.194	(0.281)
Experience in Labor Force	0.023	(0.034)	0.008	(0.005)	0.045	(0.014)
Experience Squared (/100)	0.050	(0.075)	-0.015	(0.011)	-0.070	(0.029)
Firm Seniority	-0.047	(0.032)	0.022	(0.005)	-0.002	(0.013)
Firm Seniority Squared	0.001	(8.8E-4)	-5.1E-4	(1.4E-4)	-1.4E-4	(3.4E-4)
Diploma						
5th Grade and less	-1.669	(0.275)	-0.130	(0.045)	0.374	(0.192)
Junior High School	-0.661	(0.315)	-0.067	(0.059)	0.080	(0.164)
Vocational Degree	-1.203	(0.233)	0.002	(0.041)	0.195	(0.164)
Completed High School	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Bachelor's Degree	0.529	(0.253)	0.124	(0.054)	0.228	(0.117)
Post Graduate Degree	1.581	(0.299)	-0.204	(0.091)	0.312	(0.162)
Family Status						
Single without Children	Ref.	Ref.	-	-	-	-
Couple without Children	0.766	(0.280)	-	-	-	-
Single with Children	-0.224	(0.607)	-	-	-	-
Couple with Children	0.820	(0.283)	-	-	-	-
Part-Time	-0.999	(0.374)	-0.566	(0.038)	0.339	(0.172)
Fixed Term Contract	-0.094	(0.985)	0.131	(0.161)	0.805	(0.477)
Economic Activity						
Manufacture of Consumer Goods	0.598	(0.304)	-0.019	(0.056)	-0.258	(0.131)
Manufacture of Capital Goods	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Manufacture of Intermediate Goods	-0.848	(0.261)	0.045	(0.037)	0.067	(0.152)
Construction	-1.060	(0.342)	-0.030	(0.039)	0.081	(0.212)
Trade and Hotels and Restaurants	-0.200	(0.262)	-0.061	(0.039)	0.008	(0.125)
Transports	0.293	(0.267)	-0.056	(0.042)	-0.075	(0.135)
Financial Activities	0.097	(0.427)	0.036	(0.098)	0.099	(0.167)
Real Estate Activities	-1.723	(0.777)	0.193	(0.126)	0.096	(0.383)
Services to Businesses	0.451	(0.259)	-0.230	(0.045)	-0.094	(0.107)
Size of the Firm						
10-49	0.469	(0.240)	-0.207	(0.036)	0.063	(0.118)
50-249	0.166	(0.207)	-0.093	(0.032)	0.009	(0.101)
250-499	-0.027	(0.297)	0.007	(0.047)	-0.006	(0.131)
500-999	-1.000	(0.441)	0.026	(0.041)	0.092	(0.234)
1000 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Union Related Items						
Presence of a Staff Delegate	0.054	(0.241)	-0.022	(0.033)	0.128	(0.111)
Presence of a Union Delegate	0.165	(0.202)	0.015	(0.031)	-0.179	(0.095)
Collective Pay Agreement	-0.105	(0.240)	0.034	(0.033)	0.099	(0.116)
Sigma	1.000	-	0.300	(0.009)	0.314	(0.041)
Correlation with Probit Error Term	-	-	-0.677	(0.117)	-0.435	(0.344)

Note: The columns correspond to the estimates of the three equations of the model and their respective standard error.
Reading: The estimated coefficient of "experience in the labor force" is 0.023 in the selection equation (probit), 0.008 among the non-executives and 0.045 among the executives.
Source: French Structure of Earnings Survey (2002)

Table 10: Estimation on French Women Whose Both Parents Were Born in Southern Europe

	Probit		Non Executives		Executives	
	Coefficients	Std. Err.	Coefficients	Std. Err.	Coefficients	Std. Err.
Intercept	-4.356	(1.331)	9.836	(0.117)	10.271	(0.872)
Experience in Labor Force	0.090	(0.048)	0.021	(0.007)	0.021	(0.022)
Experience Squared (/100)	-0.126	(0.109)	-0.042	(0.016)	-0.018	(0.049)
Firm Seniority	0.058	(0.045)	-0.003	(0.007)	-0.016	(0.024)
Firm Seniority Squared	-0.002	(0.001)	4.1E-4	(2.2E-4)	1.5E-4	(6.5E-4)
Diploma						
5th Grade and less	-0.844	(0.436)	-0.445	(0.058)	-0.139	(0.316)
Junior High School	-0.487	(0.514)	-0.250	(0.075)	0.147	(0.267)
Vocational Degree	-0.223	(0.308)	-0.106	(0.054)	-0.071	(0.182)
Completed High School	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Bachelor's Degree	1.169	(0.346)	-0.007	(0.063)	-0.082	(0.192)
Post Graduate Degree	2.336	(0.451)	-0.033	(0.121)	0.091	(0.257)
Family Status						
Single without Children	Ref.	Ref.	-	-	-	-
Couple without Children	-0.046	(0.303)	-	-	-	-
Single with Children	-0.299	(0.546)	-	-	-	-
Couple with Children	0.134	(0.265)	-	-	-	-
Part-Time	-1.018	(0.326)	-0.518	(0.041)	-0.633	(0.167)
Fixed Term Contract	-0.294	(1.230)	-0.109	(0.115)	-0.650	(0.524)
Economic Activity						
Manufacture of Consumer Goods	0.803	(1.079)	0.028	(0.078)	0.044	(0.609)
Manufacture of Capital Goods	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Manufacture of Intermediate Goods	1.311	(1.067)	-0.034	(0.076)	-0.024	(0.618)
Construction	0.105	(1.311)	0.713	(0.154)	0.472	(0.684)
Trade and Hotels and Restaurants	0.751	(1.056)	-0.016	(0.070)	0.170	(0.607)
Transports	1.332	(1.123)	-0.007	(0.094)	0.280	(0.632)
Financial Activities	1.365	(1.098)	-0.032	(0.097)	0.204	(0.610)
Real Estate Activities	0.287	(1.373)	0.113	(0.115)	0.073	(0.729)
Services to Businesses	1.830	(1.055)	-0.106	(0.074)	0.106	(0.622)
Size of the Firm						
10-49	0.214	(0.310)	-0.114	(0.055)	-0.016	(0.126)
50-249	0.212	(0.314)	-0.054	(0.054)	-0.033	(0.116)
250-499	0.063	(0.434)	0.090	(0.073)	-0.051	(0.172)
500-999	0.813	(0.337)	0.105	(0.065)	-0.018	(0.182)
1000 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Union Related Items						
Presence of a Staff Delegate	-0.085	(0.272)	0.027	(0.052)	0.136	(0.137)
Presence of a Union Delegate	-0.443	(0.273)	-0.017	(0.051)	0.089	(0.110)
Collective Pay Agreement	0.464	(0.348)	0.007	(0.055)	0.087	(0.169)
Sigma	1.000	-	0.344	(0.015)	0.260	(0.053)
Correlation with Probit Error Term	-	-	-0.760	(0.119)	-0.460	(0.476)

Note: The columns correspond to the estimates of the three equations of the model and their respective standard error.
Reading: The estimated coefficient of "experience in the labor force" is 0.090 in the selection equation (probit), 0.021 among the non-executives and 0.021 among the executives.
Source: French Structure of Earnings Survey (2002)

Table 11: Decomposition of Mean Log-Wage Gaps (Full Model)

		Two-Step Heckman		Maximum Likelihood	
	Gap	Explained	Unexplained	Explained	Unexplained
France-Maghreb (Male)					
Overall	0.084	0.094	-0.010	0.095	-0.011
Executives	0.047	0.045	0.002	0.047	-0.001
Non-Executives	0.044	0.062	-0.018	0.063	-0.020
Share of Executives	0.052	0.045	0.007	0.045	0.007
France-Southern Europe (Male)					
Overall	0.080	0.096	-0.015	0.095	-0.014
Executives	0.009	0.052	-0.043	0.054	-0.045
Non-Executives	0.003	0.029	-0.026	0.028	-0.025
Share of Executives	0.100	0.083	0.017	0.082	0.017
France-Maghreb (Female)					
Overall	0.017	0.021	-0.004	0.021	-0.004
Executives	-0.167	-0.053	-0.115	-0.052	-0.116
Non-Executives	0.008	0.026	-0.017	0.027	-0.018
Share of Executives	0.035	0.007	0.028	0.006	0.029
France-Southern Europe (Female)					
Overall	0.068	0.081	-0.013	0.081	-0.012
Executives	0.055	0.022	0.033	0.022	0.033
Non-Executives	0.051	0.051	0.000	0.052	-0.001
Share of Executives	0.023	0.043	-0.021	0.042	-0.019
Male-Female (France)					
Overall	0.291	0.103	0.187	0.101	0.190
Executives	0.245	0.141	0.104	0.143	0.102
Non-Executives	0.228	0.105	0.122	0.101	0.126
Share of Executives	0.079	-0.013	0.092	-0.013	0.092
Male-Female (Maghreb)					
Overall	0.224	0.033	0.191	0.037	0.187
Executives	0.030	0.103	-0.073	0.108	-0.078
Non-Executives	0.192	0.081	0.112	0.076	0.116
Share of Executives	0.062	-0.069	0.131	-0.061	0.123
Male-Female (Southern Europe)					
Overall	0.279	0.096	0.182	0.108	0.170
Executives	0.291	0.039	0.252	0.059	0.232
Non-Executives	0.276	0.136	0.140	0.146	0.130
Share of Executives	0.002	-0.033	0.035	-0.033	0.034

Note: All decompositions are computed with maximum likelihood and two-step Heckman procedures. The variables used is this specification of the model are the same as those presented in the estimation tables.
Reading: French executive men whose both parents were born in Maghreb earn on average 4.7 % less than their counterparts with both parents born in France. Among this, with the two-step method, 4.5 % is explained by their individual characteristics and 0.2 % is not.
Source: French Structure of Earnings Survey (2002)

Table 12: Decomposition of Mean Log-Wage Gaps (Partial Model)

		Two-Step Heckman		Maximum Likelihood	
	Gap	Explained	Unexplained	Explained	Unexplained
France-Maghreb (Male)					
Overall	0.084	0.098	-0.014	0.100	-0.016
Executives	0.047	0.041	0.006	0.042	0.005
Non-Executives	0.044	0.069	-0.025	0.071	-0.028
Share of Executives	0.052	0.044	0.008	0.044	0.008
France-Southern Europe (Male)					
Overall	0.080	0.094	-0.013	0.094	-0.013
Executives	0.009	0.042	-0.032	0.042	-0.033
Non-Executives	0.003	0.030	-0.028	0.030	-0.027
Share of Executives	0.100	0.080	0.019	0.080	0.019
France-Maghreb (Female)					
Overall	0.017	0.023	-0.006	0.023	-0.006
Executives	-0.167	-0.049	-0.119	-0.048	-0.119
Non-Executives	0.008	0.027	-0.019	0.028	-0.020
Share of Executives	0.035	0.007	0.028	0.006	0.029
France-Southern Europe (Female)					
Overall	0.068	0.080	-0.011	0.079	-0.011
Executives	0.055	0.023	0.032	0.021	0.034
Non-Executives	0.051	0.050	0.000	0.051	0.000
Share of Executives	0.023	0.042	-0.020	0.042	-0.019
Male-Female (France)					
Overall	0.291	0.106	0.184	0.105	0.186
Executives	0.245	0.142	0.102	0.144	0.101
Non-Executives	0.228	0.095	0.133	0.093	0.135
Share of Executives	0.079	0.002	0.077	0.002	0.077
Male-Female (Maghreb)					
Overall	0.224	0.056	0.168	0.059	0.165
Executives	0.030	0.125	-0.095	0.143	-0.113
Non-Executives	0.192	0.075	0.117	0.072	0.120
Share of Executives	0.062	-0.038	0.100	-0.035	0.098
Male-Female (Southern Europe)					
Overall	0.279	0.111	0.168	0.111	0.168
Executives	0.291	0.042	0.248	0.030	0.261
Non-Executives	0.276	0.135	0.141	0.135	0.141
Share of Executives	0.002	-0.016	0.018	-0.014	0.016

Note: All decompositions are computed with maximum likelihood and two-step Heckman procedures. The variables used is this specification of the model are the same as those presented in the estimation tables less all the firm characteristics (i.e. economic activity, size of the firm and union related items).
Reading: French executive men whose both parents were born in Maghreb earn on average 4.7 % less than their counterparts with both parents born in France. Among this, with the two-step method, 4.1 % is explained by their individual characteristics and 0.6 % is not.
Source: French Structure of Earnings Survey (2002)

Table 13: Confidence Intervals for the Decomposition of Mean Log-Wage Gaps (Full Model)

		Explained			Unexplained		
	Gap	C2.5	Mean	C97.5	C2.5	Mean	C97.5
France-Maghreb (Male)							
Overall	0.084	0.100	0.095	0.091	-0.016	-0.011	-0.007
Executives	0.047	0.059	0.048	0.036	-0.012	-0.001	0.010
Non-Executives	0.044	0.068	0.063	0.059	-0.025	-0.020	-0.015
Share of Executives	0.052	0.048	0.044	0.041	0.004	0.007	0.011
France-Southern Europe (Male)							
Overall	0.080	0.099	0.095	0.091	-0.018	-0.014	-0.010
Executives	0.009	0.068	0.055	0.042	-0.059	-0.046	-0.033
Non-Executives	0.003	0.032	0.028	0.023	-0.030	-0.025	-0.021
Share of Executives	0.100	0.086	0.082	0.079	0.014	0.017	0.021
France-Maghreb (Female)							
Overall	0.017	0.028	0.021	0.014	-0.011	-0.004	0.003
Executives	-0.167	-0.030	-0.051	-0.073	-0.137	-0.116	-0.095
Non-Executives	0.008	0.034	0.027	0.020	-0.026	-0.018	-0.011
Share of Executives	0.035	0.010	0.006	0.001	0.025	0.029	0.034
France-Southern Europe (Female)							
Overall	0.068	0.087	0.080	0.074	-0.018	-0.012	-0.005
Executives	0.055	0.046	0.023	0.001	0.010	0.032	0.054
Non-Executives	0.051	0.058	0.051	0.045	-0.007	-0.001	0.006
Share of Executives	0.023	0.045	0.041	0.037	-0.023	-0.019	-0.015
Male-Female (France)							
Overall	0.291	0.108	0.100	0.095	0.183	0.190	0.196
Executives	0.245	0.157	0.142	0.126	0.088	0.103	0.119
Non-Executives	0.228	0.108	0.101	0.096	0.120	0.126	0.131
Share of Executives	0.079	-0.007	-0.013	-0.019	0.086	0.092	0.098

Note: All decompositions are computed with maximum likelihood. The variables used is this specification of the model are the same as those presented in the estimation tables.
Reading: French executive men whose both parents were born in Maghreb earn on average 4.7 % less than their counterparts with both parents born in France. Among this, a 95 % confidence interval for the part explained by their individual characteristics is 3.6 % to 5.9 %.
Source: French Structure of Earnings Survey (2002)