Educational Attainment and Labor Market Performance: an Analysis of Immigrants in France*

Mehtap AKGÜÇ† and Ana FERRER‡

This version: February 2015

Abstract: Using a recent survey of immigrants to France, we provide a detailed analysis of the educational attainment and labor market performance of various sub-population groups in France. Our results indicate that immigrants to France are less educated than the native born and that these differences can be tracked down to differences in socioeconomic background for most groups of immigrants. Similarly, there is a significant wage gap between immigrant and native-born workers regardless of gender, but this is reduced and sometimes disappears after correcting for selection into employment. In most cases the remaining differences in education and labor market outcomes seem related to the area of origin of the immigrant as well as where the education of the immigrant is obtained.

JEL Classification: F22, J15, J61, I26

Keywords: Immigration, France, educational attainment, labor market performance of immigrants

*We are thankful for the comments from the participants in CEPII Immigration Conference at the OECD, NORFACE migration conference at UCL, and the 2013 IZA Summer School in Ammersee. All remaining errors are our own.
† Centre for European Policy Studies (CEPS). Contact: akguc.mehtap@gmail.com (Corresponding author).
‡ University of Waterloo.

1. Introduction

The recent large-scale immigration flows into many OECD countries has generated large quantities of migration related research, mostly related to the outcomes of immigrants in the host country.[1] In this context, integration continues to be a top priority for immigration policy of OECD countries (OECD, 2012). Studies in the area generally agree that integration of immigrants is highly idiosyncratic, depending on the culture and diversity of the immigrant population as well as on the set of institutions in the host country. This paper contributes to the literature by providing a detailed analysis – by gender and area of origin - of the educational attainment, labour force participation and wages of the native born and first generation immigrants in France. To our knowledge, this is the first study to cover all these aspects of immigrants and natives using a recent survey in France. Our results show that area of origin accounts for a substantial portion of educational differentials between foreign and native-born individuals. Similar results hold for our analysis of wage differentials, which quantifies the extent to which observable characteristics help to explain wage differentials over the whole wage distribution.

Migration researchers have extensively analyzed education and labor market outcomes of immigrants in their host countries to understand the underlying determinants of the differences between native and foreign-born socioeconomic outcomes. The evidence from these studies points out to individual differences in human capital prior to immigration (years of education, language ability) or in the type of institutions in the host country (ease of transferring/recognizing foreign credentials or degree of discrimination among employers) as the main determinants of immigrant success. The importance of both, country-specific policies and institutions and the culture and diversity of the immigrant population in the analysis of integration is highlighted in research by Chiswick and DebBurman (2004), Chiswick and Miller (2009), Algan et al. (2010) and Dustmann and Glitz (2011). Further, given the heterogeneity in countries of origin and migration policies in place, there is substantial variation in the educational composition and ultimate labor market performance of the foreign-born population across destinations. Dustmann and Glitz (2011) look at the aggregate educational attainment of natives and immigrants at the OECD destinations and

[1] See the recent survey of Dustmann and Glitz (2011) providing a comprehensive view of the current status of the migration literature with a focus on educational attainment.

suggest a division of these countries into two groups: one characterized by high-skilled immigrants (such as Australia, Canada, and the United Kingdom) and one characterized by low-skilled immigrants (such as France, Germany, and the Netherlands). Two studies by Algan et al. (2010, 2012) report that that on average immigrants to France and Germany have left school at an earlier age than the native-born French and German, supporting this classification. Despite the obvious implication that country-specific studies are necessary to understand the heterogeneity of migration outcomes, most of our understanding in immigration trends comes from evidence in main immigrant-receiving developed countries, United States, Canada, and Australia. Fortunately, migration studies from the European countries are on the increase, as Europe has become one of the top destinations of immigrants in the last decades with various phases and flows from different source regions.[2]

The literature on the labor market assimilation of immigrants originated with Chiswick's seminal 1978 paper, which proposed that immigrant human capital deteriorates upon migration resulting in lower initial earnings than (similarly skilled) native-born individuals. With time in the host country, immigrants are able to accumulate domestic human capital and "catch up" with the native born. Since then, a long list of academic and non-academic studies has documented this phenomenon using different measures of labor market performance (Chiswick, 1986; Borjas, 1995, 2013; Bell, 1997; Friedberg, 2000; Aydemir and Skuterud, 2005; Antecol et al. 2006; Clark and Lindley, 2009; Beenstock et al., 2010). In North America, the earnings difference has largely been attributed to changes in the composition of immigrants arriving to the host country (McDonald and Worswick, 1998; Picott and Hou, 2009).

In the case of France, the amount of migration studies is particularly meager, despite France's long immigration tradition. France was the country with the largest share of migrants in 1920 after the US (Algan et al., 2012). Since 1974 the proportion of immigrants has remained stable in France. Around 7.4% of the population is of foreign origin according to the 1999 Census (Aeberhardt et al., 2010). By early 2000s about 25% of the population has some immigration background from the first, second, and third generation and the ethnic composition of the migrants

[2] A substantial part of the European migration occurred as a consequence of decolonization such as in the United Kingdom, the Netherlands, and France (Alba and Silberman, 2002) which makes for distinctive patterns in immigrant integration. For a survey on the phases and characteristics of European migration, see Zaiceva and Zimmermann (2008).

has become increasingly diverse over the last decades (Algan et al., 2012). At the same time, historically, the secular tradition of the French Republican model has implied restrictive attitudes on expressing ethnic and religious identities in public sphere. This Republican assimilation model, which aimed at giving both French and immigrant children common civic and national values, fails to acknowledge the minorities and makes it hard to evaluate whether the rhetoric of cultural integration matches the reality (Constant, 2003; Algan et al., 2012). Therefore, despite its diverse background of populations, the immigrants in France and their labor market performance have not been studied enough in the migration literature, due to the lack of appropriate detailed data and/or nationally representative surveys.[3] However, the urge to collect and document immigration related data in France became stronger in the aftermath of the November 2005 riots, which took place simultaneously in many poor suburbs of large cities where immigrants were overrepresented (Aeberhardt et al., 2010). The French studies find that the labor market performance of most immigrant groups (as well as their descendants) is generally worse than that of the native-born population (Algan et al., 2010; Meurs et al. 2006; Aeberhardt et al. 2010). These lower outcomes can be partly explained by occupational differences, possibly due to occupational segregation (Aeberhardt and Pouget, 2007).

This paper fills a gap in the international literature of immigrant assimilation by providing a detailed analysis of the educational attainment and labor market outcomes of immigrants to France using the recent *Trajectoires et Origins: Enquête sur la diversité des populations de France* (TeO), collected by the *Institut National des Études Démographiques* (INED) and the *Institut National de la Statistique et des Études Économiques* (INSEE). This nationally representative survey provides rich information on the socio-demographic characteristics of different subgroups of the French population with different attachments to French culture and institutions. In addition to native-born French individuals, the survey identifies (a) individuals from DOM, who are in fact French citizens, speaking French and growing up under French institutions, (b) immigrants from previous French colonies, who usually speak French well and are more exposed to the French-style institutions, and (c) immigrants from various origins (e.g. from Eastern Europe) who are not necessarily familiar with the language or culture of the host country prior to arrival. Hence, TeO provides a unique

[3] In particular, "public authorities have long been reluctant to provide information on country of birth of parents in the main national surveys such as the Census or the Labor Force Survey" (as cited in Algan et al., 2010).

opportunity to study differences in educational and economic outcomes between these groups while controlling for the effect of cultural and institutional background.

Compared to the literature, the contribution of our paper is two-fold. First, we use the most recent nationally representative data on immigrants in France covering all origins. Including country of origin allows taking into account cultural and institutional factors in explaining outcome gaps between natives and immigrants. Second, given the rich information available, we are able to control for a broader set of controls to address the heterogeneity of the immigrant population in ways that is rare in the immigration literature. For instance, information about place of completed education (host versus abroad) allows us to address issues of transferability of human capital to the host country labor market.

Our results show that area of origin accounts for a substantial portion of educational differentials between foreign and native-born individuals and that conditioning on a broad set of socioeconomic characteristics eliminates or reduces some of these differences. Gender specific analysis shows differential patterns by area of origin, with immigrant men from Southern Europe, Asia and Eastern Europe and immigrant women from Maghreb, Middle East and Southern Europe, showing systematically lower educational attainment compared to French natives. Similar results hold for our analysis of wage differentials, where information on where education is completed, largely explains the earning gaps between immigrants and natives, indicating the role played by the less-than-perfect international transferability of human capital from abroad to the host country. Further, using common decomposition techniques, we quantify the extent to which observable characteristics help to explain wage differentials over the wage distribution.

The rest of the paper is organized as follows: Section 2 presents the data and descriptive statistics; Section 3 presents the estimations results on education and labor market outcomes as well as the wage gap decompositions; and Section 4 gives concluding remarks.

2. Data and Descriptive Statistics

We use the *Trajectoires et Origins: Enquête sur la diversité des populations de France* (hereafter, TeO), a household survey collected jointly by INED and INSEE between 2008 and 2009. TeO is a unique dataset, the largest survey ever conducted in France on ethnic minorities, both in the breadth

of the population covered and the depth of information collected. TeO covers detailed demographic and socioeconomic characteristics, migratory trajectories, as well as health and religion related information of individuals and their family members. Regarding labor market outcomes, TeO provides information on labor force participation, employment, and monthly wages of individuals. Sample weights are used through the analysis to produce nationally representative estimates.

This survey sample includes 21,761 individuals residing in metropolitan France between the ages 18-60 in 2008. It covers French-born natives, first generation immigrants (born abroad and arrived to France at some point in their life), individuals born in DOM or *Département d'Outre-mer* (Overseas Departments), second generation individuals (born in France, but have at least one foreign born parent) and second generation DOM individuals (born in France, but have at least one DOM-born parent).[4] Our focus is on the French and DOM native born (denoted NB and DOM respectively) and foreign born individuals (FB).[5] Our final sample comprises 12,345 individuals roughly equally divided between men and women. DOM individuals are a special group since they are – legally – native born French, brought up within the institutional French educational, legal and cultural system. However, being born outside metropolitan France, they share some of the characteristics of immigrants, such as a diverse racial and cultural background. This provides us with an interesting reference in our analysis, allowing us to separate the effect of host country culture/institutions from that of foreign countries. Hence, we include DOM as a distinct place of origin from the French nationals.

Table 1 provides the sample proportions of these three main groups and the diverse areas of origins of first generation immigrants in detail (excluding DOM). Overall, about 11.7% of population in France is composed of first generation immigrants and about 1% originates from DOM. The details on the categorization of the countries of origin into broader regions are listed below Table 1. We observe that an important part of the first generation immigrants are composed of individuals with origins from Maghreb with 32.5%, Southern Europe with 18.4%, Africa with 13.9%, and Asia with 9.1% out of the total foreign-born population. Individuals from Middle East,

[4] See Appendix for the country members of DOM.

[5] In the native group, we also included the French repatriates (corresponding to 291 individuals in our sample) who are born outside France (most of them born in Maghreb), but are French nationals by birth. Their characteristics are more similar to the French natives than the natives of the countries where they are born. For that reason, in the remaining analysis these repatriates are always counted in the French natives.

Western/Northern Europe, and Eastern Europe comprise 8.3%, 8%, and 5.9%, respectively, of the total foreign-born. The last origin group "Others" consists of a heterogeneous set of countries in the American continent as well as in Oceania and makes 4.1% of the foreign-born individuals in France.

Table 2 reports summary statistics for the three main groups of interest. DOM individuals are slightly younger and less likely to be married or have kids, and more likely to live in large cities (more than 200,000 inhabitants), than the native or foreign born. Immigrants have the highest levels of fertility, with 2 children on average, relative to 1.4 by the native born and 1.6 in the case of DOM individuals. However, it is this later group which comes from largest families. DOM individuals have an average of 5.2 siblings, versus 4.7 or 2.5 siblings in the case of foreign or native born, respectively.

Next we focus on human capital variables. We use years of education as the main measure of an individual's formal education. There are important differences in educational attainment across the three groups. The highest educational attainment – in years of schooling – is observed among the native born individuals with 11.2 years, on average, followed by individuals from DOM with about 10 years of schooling. First generation immigrants have the lowest level of educational attainment with only 9.6 years. As suggested by Chiswick (1978) we also consider years in the country as a measure of the local human capital the immigrant possess. The longer an immigrant has stayed in France, the higher the chances that he has command of the native language and has developed networks leading to socioeconomic integration. We report age at arrival in France and years since migration for those not born in Metropolitan France. The numbers suggest that FG immigrants arrive as young adults around 20 years of age and DOM immigrants slightly younger (around 17 years of age). Hence, they have been in France, on average, over 20 years. There are, however, important differences in years since migration by area of origin.[6] Immigrants from Southern Europe have generally spent the longest time in France, corresponding with the large influx of Spanish exiles arriving around WWII. Finally, we also include a measure of language ability. As suggested by previous research, fluency in the language of the destination country will influence immigrant's success in destination countries' labor markets (Chiswick and Miller, 2010; Dustmann and van Soest, 2001, 2002; and Dustmann and Fabbri, 2003). Our data has several self-

[6] These numbers are not reported in the summary tables, but are available upon request.

reported French language ability indicators. We use the overall language capacity indicator, which summarizes the abilities in comprehension, reading, writing, and speaking of French. This variable is reported as the share of first generation immigrants whose overall language abilities are "well".[7]

We also include parental education in our analysis. Our interest on parental educational attainment arises because a large literature on the intergenerational analysis on educational attainment suggests that it is potentially related to the educational attainment of their descendants (see Black and Devereux, 2011, for a survey on intergenerational mobility). The effect of parental education on second generation immigrants has proven to be an important determinant of the integration of child immigrants and second generation immigrants (Bauer and Riphahn, 2007; Beck et al., 2012). In France, Dos Santos and Wolff (2011) show that among second generation immigrants, the skills of the parents mainly explain ethnic educational gaps between groups. Although the later study does not cover first generation immigrants or the native born, the overall evidence suggests that it is important to control for parental background in assessing educational attainment across ethnic groups. We borrow from this literature and control for parental background in our analysis. We report educational categories of both parents: low (up to primary school), middle (up to high school), and high (university or more).[8] In France the educational attainment of the parents shows heterogeneity both between the three groups, as well as within the family between the mother and the father as shown in Table 2. Immigrants come from a lower educational background than native born and DOM individuals: 72.4% of mothers and 62.1% of fathers of the immigrants have only reached a primary level of education. In contrast, parents of the native born and DOM individuals are less likely to be low educated: 52.7% of the mothers and 44.7% of the fathers of the native born, and 59% of the mothers and 51.3% of the fathers of DOM individuals. However, the education levels of the parents of immigrant individuals shows greater dispersion, with a similar, if not higher, fraction of highly educated parents among immigrants than the natives (over 8% of mothers of natives and immigrants have high levels of education, while 10% and 13.5% of fathers of native born and immigrants have high levels of education). This suggests that the

[7] As French natives and DOM individuals speak French as their native language, there is no language fluency variable for them in the data.

[8] In additional tabulations, not shown here, we compared the educational attainment of individuals to that of their parents (after converting parental education to years of schooling). This comparison shows that both parents from all groups have, on average, less education than the surveyed individuals themselves, suggesting an increase in the overall educational attainment over a generation.

socioeconomic background of first generation immigrants is quite heterogeneous with immigrants coming both from highly and lowly educated families. There are also important differences in terms of unreported parental education with French (both DOM and native born) being more likely not to report parental education.

Finally we report several labor market indicators such as labor force participation, employment status, and monthly earnings. On average, labor force participation of native born is 86.3%, slightly less than that of DOM individuals (91.7%), but higher than that of FG immigrants (80.1%). The percentage of employed individuals shows similar levels of labor market attachment for the three groups. As a measure of earnings, we use monthly wages of individuals instead of hourly wages in our analysis because of insufficient information on hours of work due to missing or unreported values. Not surprisingly, native born individuals have the highest monthly wage with 1750€, compared to DOM with 1553€ and other immigrants with 1582€, on average.

In Table 3, we summarize the main outcomes of interest of our paper, education, labor force participation, and wages, by region of origin and gender. This breakdown of the data is important as cultural differences across origins might imply differing values regarding female and male roles in the household and labor markets, and hence differing outcomes by gender. The upper panel of Table 3 reports the summary statistics for men. As expected, educational attainment in years shows great variation among males of different origins. For instance, men from Western/Northern Europe have, on average, 12 years of schooling in contrast with 10 years of education for Asian immigrants, 9 for Maghreb immigrants and 7.5 for Southern Europeans. Labor force participation of men range from 87% for men from Western/Northern European origin to 94.8% for men from African origin. Variation in labor force attachment naturally translates into earnings variation, with the highest wages corresponding to Western/Northern European immigrants and the lowest wages corresponding to African immigrants.

The lower panel of Table 3 shows similar statistics for women of various origins. There seems to be larger variation among women than men by area of origin. Regarding educational attainment, women from Western/Northern Europe have the highest years of schooling with 13.2 years followed by women from Eastern Europe with 12.9 years and French women with 11.3 years. In contrast, women from Southern Europe, Maghreb, and Middle East have the lowest years of

schooling, with 7.6, 8.3, and 8.5 years, respectively. Participation into labor force is higher among women from DOM with 89.7%, native born with 83.5%, Eastern Europeans with 80.9%, and Southern Europeans with 78.9%. These numbers are much lower for women from Middle East with 46.5% and from Maghreb with 60.8%, on average. Female immigrants from the remaining origins have participation rates around 70%. In terms of wages, the monthly wage of native French women is 1457€, while it is 1135€ for African women. Women from European origins (except for Southern Europe) earn higher wages than the native born, while women from Maghreb, Africa, and Middle East have lower wages than native women.

These descriptive statistics point to important differences between immigrant and native born individuals, in terms of educational attainment, labor force participation, and monthly earnings according to gender and area of origin. From a gender perspective, we note that even though native born, DOM, Asian and European immigrant women are not less educated than men, they are usually less likely to participate in the labor force and have lower wages than men. In addition, labor force participation and wages of immigrant women from Maghreb and Africa are substantially lower than those of French women (or men from the same area of origin), but this is coupled with significantly lower educational attainment. Therefore, in the remainder of the paper, we will conduct separate analysis by gender and pay particular attention to the area of origin of the individuals.

3. Empirical Results

3.1. Educational Attainment

Following previous studies, we estimate the educational attainment of immigrants, relative to the native born using the following linear model:

$$Y_i = \beta_0 + \beta_1 X_i^1 + \beta_2 X_i^2 + \beta_3 X_i^3 + \varepsilon_i, \quad (1)$$

where Y_i is the educational attainment measured in years for individual i, X_i^1 is set of individual covariates such as age and age squared and, for immigrants only, a set of arrival cohort indicators. X_i^2 is a set of variables which includes controls for family background such as number of siblings, educational attainment and occupation of both parents. The vector X_i^3 is the focus of analysis and introduces indicators related to the immigration status as first generation (FG) immigrants, DOM

immigrants, or native born (reference category). Alternatively, X_i^3 will include a set of indicators of area of origin, where the reference group is France. The random error term is denoted ε_i.

The addition of the parental controls is inspired by evidence from the literature, which points to the intergenerational persistence in educational and economic outcomes among family members (for example, see Dustmann and Glitz, 2011; Bauer and Riphahn, 2007). In our sample, parental education has four categories: non-response (or missing), low, middle, and high levels of education, where the low education is the omitted category.[9] Parental occupation also has four categories: non-response (or missing), unskilled, skilled, and professional occupations, where the unskilled occupation is the omitted category. [10] Finally, all specifications control for the cohort effects using dummy variables for the period of arrival to France by 10-year intervals, where the native born is allocated to the reference cohort group.[11] Among socioeconomic background we consider the number of siblings to account for the quantity-quality trade-off in fertility decisions of parents (Becker, 1960). We expect educational attainment to diminish with the number of siblings and to increase with the socioeconomic status of the parents measured either in educational or occupational attainment.

Table 4 shows the estimations results of equation (1) by OLS, where columns 1-3 shows the results for men, followed by results of women in columns 4-6. In the table, columns 1 and 4 report the educational attainment analysis with immigration status dummies, while the rest of the columns include the expanded regions of origin instead, as we are interested to see the effects of migratory origins on educational attainment. In this way, the coefficients of the immigration status variables in columns 1 and 4 are interpreted as the deviations in the outcome variable (years of education attained) with respect to the reference group (the native born). A similar interpretation holds for the coefficients of the regions of origin in the remaining columns of Table 4.

[9] We also ran the estimations by dropping the missing/unreported category in education and occupation of the parents and the results remain unchanged. We decided to keep the models with these categories to have a larger sample size.

[10] Occupational categories are defined as in Bauer and Zimmermann (1999).

[11] Because there is only one cross section of data, we cannot distinguish between years since migration and cohort effects. Given the historical immigration flows to France, controlling for differences in the arrival cohorts seems more relevant than estimating a common assimilation profile from such a heterogeneous immigrant population.

As the focus of analysis is the variation in outcomes across areas of origin, we report only briefly on demographic and family background controls. These are for the most part significant and have the expected signs across all specifications in Table 4. Educational attainment increases with age at a decreasing rate as expected, since education investments are more lucrative if made earlier in life. The sibling variable is negative and significant in all specifications for both genders (-0.230 for men and -0.320 for women), confirming the idea of quantity-quality trade-off of parents in fertility decisions. In other words, having more siblings is associated with having less educational attainment, probably because by having more children (quantity aspect) parents have fewer resources per child to invest in their education (quality aspect). The results also confirm the initial assumption that having parents with middle/high level education is correlated with higher educational attainment (about 1 year more schooling) for the individuals themselves than having parents with low level of education (reference category).[12] Having parents with professional occupations is also positively and significantly related to individuals' educational attainment.

We now turn our attention to the immigrant - native born differences in column 1. First generation and DOM men have, on average, 1.27 years and 1.48 less years of education than native-born men. In column 2, further disaggregating into detailed areas of origin, we show that coming from DOM, Maghreb, Asia, Middle East, Southern and Eastern Europe is associated with significantly lower years of education with respect to native born. The educational gaps range from 1.7 years less for Eastern European men to 3.2 years less for Maghrebian men and 4.9 years less for Southern European men relative to native men. Men from DOM also have 2.8 years less of education than the natives. These are overall rather large deviations of educational attainment of immigrants from the native born men when only demographical variables are held constant. In contrast, men from Western/Northern Europe and Africa have about the same amount of education obtained as the natives in these specifications. The next specification (column 3) adds family background characteristics. These have significant effects on the previous estimates of origin on educational attainment, making most of the differences disappear. For example, immigrant men from Maghreb and Middle East no longer have a significant difference in years of education attained compared to native-born, once standard demographic and socioeconomic background

[12] The estimates for number of siblings, parental education and occupation variables are not shown in this table, but are available upon request.

characteristics are held constant. Further educational differences have significantly reduced for the other groups. For instance, once familial controls are added, men from DOM have only 1 year less of education than the native-born French, and men from Asia and Eastern Europe slightly over a year of education less.

Columns 4-6 repeat the same exercise for women. Column 4 shows that immigrant women have about 1.3 years less education and women from DOM have 0.5 years less education than French women when only demographic controls are held constant. Column 5 distinguishes immigrants by area of origin. The estimates suggest that the educational discrepancies are significant and large by origin, with South European immigrant women having an estimated 4 less years of education than French-born women. The estimates for other areas of origin are also significantly lower than those of French women, except those of Eastern and Western/Northern European women. As reported for men, adding family background variables in column 6 contributes to reduce the educational attainment gap. For example, women from DOM and Western/Northern Europe no longer show a significantly different number of years of education compared to native-born women. However, although reduced in magnitude to more than half their previous estimated values, the addition of familial background controls does not completely eliminate the education gaps (ranging from 0.8 to 2 years) for immigrant women from Maghreb, Africa, Asia, Middle East, and Southern Europe with respect to native-born women.

Overall, these results suggest that controlling for demographical and family background helps explain the difference in the educational attainment of individuals across different origins. Nevertheless, migrants of certain origins, such as women from Maghreb, Africa, Asia, and Middle East, and men from DOM, Asia, Southern and Eastern Europe, still show significant educational differentials relative to the native-born, even after controlling for these background characteristics.[13] This might indicate that there might still be other factors, not observed here, which

[13] The large influx of migrants into France from Southern Europe – particularly from Spain during the civil war– in the post-World War II period resulted in a current immigrant population from this area that is mainly composed by older individuals relative to the average native-born French (see Figure 2 in the appendix). Hence the educational differences are magnified as there has been an important increase in the educational attainment of the population over time. We tested whether this was behind the large education gap between Southern Europeans and French by introducing an interaction between Southern European origin and a dummy if the immigrant's age is more than 40 years of age. The results suggest that the age effect hypothesis explained an important part of the education gaps of Southern European immigrants (especially for women). Results are available upon request.

might be responsible for the lower educational attainment of these immigrants compared to natives. These factors might be related to preferences and/or heterogeneous opportunities as well as discrimination toward obtaining education (Chiswick, 1988; Chiswick and DebBurman, 2004).

3.2. Labor Force Participation

To gain understanding into the employment outcomes of immigrants, we study the participation decision of immigrants relative to those of the native born, using a probit specification of the form:

$$P(Y_i = 1|X_i) = \Phi(X_i\beta), \qquad (2)$$

where Y_i is an indicator of labor force participation of individual i; Φ is the standard normal cumulative distribution function; and X_i is a set of covariates consisting of immigration related variables (immigration status or a set of dummy variables for the area of origin), human capital (including education, age, age squared, and language fluency); and family related controls (marital status, number of children, and employment of the spouse). The variable indicating the language fluency of immigrants is equal to 1 if the immigrant speaks French "well" and 0 otherwise. As suggested in the literature, language variables are usually related to the labor market outcomes of individuals in addition to the standard covariates as mentioned above (Chiswick and Miller, 2003; Dustmann and Fabbri, 2003). All specifications include cohort of entry effects and controls for region of residence in France to capture geographical heterogeneity. We structure the estimation results similar to education regressions by providing the results first by immigration status—with dummy variables for first generation immigrants and DOM—and then by detailed country of origin indicators, separately for men and women. The marginal effects calculated at the means of the covariates on participation probabilities are reported in Table 5.

Please note that the estimates from equation (2) should be interpreted with caution. Specifically, no causal inference can be drawn between participation and endogenous variables such as fertility, education and marital status. Hence, these estimates should be understood as correlations. This caution particularly applies to women for whom fertility, education and labour

market decisions are most intertwined. Unfortunately we lack the instruments to disentangle these effects here.

Columns 1-2 show the results for men. We see that first generation immigrants and DOM individuals do not differ significantly in their participation relative to natives in column 1. Participation increases with age (1.5 percentage points by year) and education (0.6 percentage points by year of education). Having children is also positively and significantly related to labor force participation of men (0.7 percentage points per child), while marital status is not significant. Somewhat surprisingly, language fluency does not have a significant effect on participation either, even though host country language ability has been found to have an important role in the labor market assimilation of the immigrants in the literature (Chiswick and Miller, 2003; Dustmann and Fabbri, 2003). This is likely due to the inclusion of area of origin indicators, which are correlated with language fluency. Another reason could be related to the fact that these language variables are self-reported, hence subject to measurement errors. Dustmann and Fabbri (2003) show that measurement errors indeed lead to a downward bias in the estimation of language coefficients in employment and wage regressions. Spousal employment, however, positive and significantly affects participation in both specifications for men. This could be related to a family investment strategy whereby participation of wives is related to the labor market performance of husbands as in Duleep and Sanders (1993), Basilio et al. (2009), and Adsera and Ferrer (2014). In column 2, we add the details of the region of origin of the immigrant men. The results show that none of the immigrant groups (except for Southern Europeans) significantly differ from the natives in terms of labor force participation.

The estimation results for women are reported in columns 3-4 of Table 5. As it is common in the literature, age and education increase women's participation to a greater extent than they do for men (1.1 and 4.1 percentage points per year, respectively). Also, unsurprisingly, being married and having children is negatively and significantly related to female labor force participation (6.1 percentage points less per child).[14] Everything else constant both, immigrant and DOM women show lower levels of participation than native French women (20 and 7.1 percentage points lower, respectively). In column 4, we further examine differences in participation by area of origin. These

[14] Additional children are correlated to the participation of immigrant and native-born women in similar ways, but each child has a greater (negative) effect on DOM women. Results are available upon request.

are large and significant, ranging from 7.1 to 34.9 percentage points below the participation of native-born women for DOM and Middle Eastern women, respectively. Overall, the estimates for women are in line with the initial unconditional participation rate comparisons that we reported in Table 3, which then suggest that compared to natives, immigrant women participate much less in the labor force even after holding the education, age as well as marital and fertility status constant.

3.3. Wage Analysis

We use the following log-linear specification to analyze wage differentials of DOM and FG immigrants in France:

$$logY_i = \beta_0 + \beta_1 X_i^1 + \beta_2 X_i^2 + \varepsilon_i, \qquad (3)$$

where Y_i is the monthly wage of individual i; X_i^1 is a set of standard human capital related variables such as education, experience, experience squared, and language fluency; X_i^2 is a set of dummy variables for the area of origin, where France is the omitted origin; and ε_i is the error term.

We use the logarithm of the monthly wage as the dependent variable instead of hourly wage because there is not enough information on the hours of work (either missing or unreported) in the data. Nevertheless we believe that using monthly wage instead of hourly wage should not pose a big issue for at least two reasons. First, the hours of work of a wage worker are largely regulated and are 35-hours per week for full-time workers in the French labor markets. Second, a large part of individuals in our sample has a full-time job (96.2% of the men and 70.9% of the women) so that the hours of work are around 35 for most individuals. We check the robustness of our results to including a dummy variable for part-time job status as well as running the analysis only for full-time wage workers.[15] We omit self-employed workers from the analysis as modelling the earnings of these workers requires special considerations. The potential experience variable is constructed by subtracting education (in years) and 6 (assumed to be the starting schooling age) from the age of the individual, as it is standard when estimating a Mincerian earnings equation (Card, 1999;

[15] See columns 3 and 6 in Table 6 and columns 4 and 8 in Table A1 for the results only with full-time wage workers. The results remain robust to including a part-time job status indicator (results not reported here, but available on request).

Lemieux, 2003). [16] All specifications include controls for the location of residence (in our case, regions in France) to capture geographical heterogeneity as well as cohort of entry effects by 10-year intervals. As before, the reference group is native-born French individuals in all specifications.

Additionally, we estimate the wage specification in equation (3) taking into account selection into employment to check the role of selection when explaining the wage differentials between native and foreign-born. For this purpose, we follow a standard Heckman two-step procedure, where in the first stage we use explanatory variables such as age, age squared, education, marital status, number of children, employment of the spouse, house ownership, and big city residence (with more than 200,000 inhabitants) to explain selection into employment. Marital status, number of children, employment of the spouse, house ownership, and residence in a big city are the exclusion restrictions.[17] The predicted probabilities are then integrated in the second stage in order to estimate selection-corrected wage regressions. These results are shown in column (2), labelled "selection", in Table 6.

Table 6 shows the main results with area of origin variables.[18] Education and experience of men have the expected signs, with one more year of education increasing earnings by about 6% and increasing less than proportionally with years of experience in all specifications. Language fluency is not significant, likely due to the same reasons outlined above for participation regressions.

Column 1 indicates that wage differentials are substantial for African and Asian immigrant men, followed by those of Eastern European and Maghreb immigrants. Not surprisingly, the results from a Heckman selection-correction procedure (column 2) produces similar results. Finally, column 3 – labelled "Full time" - shows the results with full-time wage workers, rather than explicit

[16] While this is the preferred specification for men, Mincerian experience can introduce a large measurement error for women. We assess the robustness of our results by performing the analysis using age and age squared instead of experience and experienced squared. Results were remarkably similar (available from the authors upon request).

[17] We use standard measures to control for selection. It is out of the scope of this paper to fully analyze the issue of selection.

[18] In alternative specification reported in Table A1 in the appendix, X_i^2 includes the immigration status variables such as FG and DOM. These results show that these groups had 30% lower wages than Metropolitan French workers. Holding human capital characteristics constant reduces wage differences between immigrants and the French born, but the coefficients remain significant and negative (17.2% for FG immigrants and 14.5% for DOM workers). The results are unchanged when considering selection in the case of men, but not in the case of women, for which the wage gap is further reduced.

selection-correction as in the previous column. The coefficient estimates of the areas of origin variables remain similar to the columns before in this case, again confirming the robustness of the wage differentials between natives and immigrants of certain origins.

The results for women are shown in columns 4-6 in Table 6. Holding human capital characteristics constant, immigrant women from all origins have lower wages than the French, although the difference is not significant in the case of DOM, Middle Eastern and Southern European individuals. The remaining groups show significant differentials ranging from 15% (Other immigrants) to 26% lower wages (Asian workers). An important consideration in the analysis of labor market outcomes of women is to address selection into the labor market.[19] This is of particular importance when interested in differences by area of origin, as cultural references governing household labor division are likely to be quite heterogeneous. We address selection using a Heckman selection-correction method and report these estimates in column 5. The results show that selection is indeed an important issue to consider for women as after correcting for selection, the wage gaps disappeared between native and most immigrant women, except for women from Africa and Asia. Yet these gaps are significantly reduced to 7.7 and 13.2 %, respectively. The results for full-time wage workers in column 6 are very similar to the selection corrected results.

Our results so far show that, among women, an important part of the FG and DOM gap relative to French natives can be accounted for by productive characteristics or selection. There seems to be other determinants - different from educational attainment, experience, language abilities, and cohort effects - which generate the observed differences in earnings of certain immigrants.

In an attempt to understand the mechanisms through which wage gaps persists for certain immigrant groups, we look into the effect that the origin of education might have on the earnings of immigrants. This is inspired by a branch of the immigration literature that looks into the international transferability of immigrant human capital and the consequence of this on the labor market outcomes of immigrants (see among others, Ferrer and Riddell, 2008; Chiswick and Miller,

[19] For instance, married women tend to earn less because they are generally less attached to the labor market (work fewer hours, in lower paid occupations and have less overall experience). In addition, females with higher earnings tend to be financially secure and are less likely to marry or stay married. This results in a well-known selection bias problem in the estimation of earnings equations for women.

2009). Our data contains broad information on where the individual's education was completed; (a) in France, (b) abroad, or (c) a mixture of both.[20] This allows us to construct two sub-samples: one sub-sample with immigrants who completed their education abroad only and natives; a second sub-sample with immigrants who completed their education in France only and natives. We run the full wage regressions with human capital controls and Heckman procedure correcting for selection for these two sub-samples separately. The results are reported in Table 7, for men and women respectively. Comparison of the coefficients in columns 1-2 suggests that the quality of education, as measured by having "not French" education carries a wage penalty for most immigrant groups (except Western/Northern Europeans and South Europeans). In the case of women, only Maghrebian, African, and Asian origins are associated with significant wage penalties (11%, 13%, and 24%, respectively) as shown in column 3. Column 4 shows that these gaps almost completely disappear for immigrant women that completed education in the host country. The only exception to this is the female immigrants from Western/Northern Europe who completed their education in France and who now face a significant wage penalty. We do not have an explanation of why these might be the case, although we note that this is a rather small group of individuals and the coefficient is significant only at 10%.

With these last set of results by origin of education, we can conclude that, in addition to the human capital characteristics and selection issues, a large part of the unexplained wage gaps between immigrants and natives could be explained by the less-than-perfect international transferability of human capital from abroad to the host country. In line with this, the estimates also suggest that given their demographic and socioeconomic characteristics, had the immigrants arrived young enough and completed their education in France, they would face less (perhaps none for some groups) wage penalty.

Overall, our wage analysis of individuals in France by immigrant status and origin show that certain groups of immigrants continue to face wage penalties for reasons that are not related to observable characteristics. One possibility is that these groups receive differential treatment in the labor markets because of discrimination. Unobserved individual heterogeneity could also be

[20] In our data, we do not know whether "abroad" means the home country of origin, but we believe that the vast majority of these individuals obtained their education in their origin countries. Regarding the DOM individuals, if they completed their education in DOM, as DOM is part of France, it is considered that they completed education in France in the data. They will be in the abroad category only if they studied neither in DOM nor in metropolitan France.

responsible for these earnings gaps between natives and immigrants of various origins. Our analysis showed the importance of the host country educational attainment, compared to abroad education, for wages in the French labor markets. Furthermore, our results also highlight the selection issue, particularly relevant for women, in the labor force participation as a possible factor in the low wages observed for them.

3.4. Quantile Wage Gap Decompositions

In this last part, we provide the decomposition analysis of the wage gaps between immigrants and native-born. To give an idea about the wage differentials, Figure 1 displays the wage distributions of natives and immigrants using Kernel density estimation method. We observe that the natives have higher earnings than immigrants, particularly so towards the higher end of the distribution. The objective of this sub-section is to analyze the wage gaps between natives and immigrants at different points of the wage distribution and see to what extent our explanatory variables contribute to explain these gaps.

Initially, consider the pooled regression where the coefficients (except the constant) are constrained to be the same for immigrants and the native born:[21]

$$Y_i = \delta\, I_i + X_i\beta + \varepsilon_i, \tag{4}$$

where Y_i is the wage, $X_i$is a set of explanatory variables, and I_i is an immigrant indicator for person *i.* The decomposition of the average wage gap between immigrant and the native born can be written as:

$$\Delta = \overline{Y_I} - \overline{Y_N} = \delta + (\overline{X_I} - \overline{X_N})\beta, \tag{5}$$

where δ is the unexplained (or adjusted) part of the overall mean wage gap Δ, while $(\overline{X_I} - \overline{X_N})\beta$ is the part explained by differences in explanatory variables. To perform a similar decomposition for the different quantiles of the wage distribution, consider the τ^{th} quantile of the wage distribution for the native born, $q_N(\tau)$, and for immigrants, $q_I(\tau)$. The quantile wage gap, $\Delta(\tau)$, is defined as $\Delta(\tau) = q_I(\tau) - q_N(\tau)$. Firpo, Fortin, and Lemieux (2011) show that it is possible to decompose

[21] The description of the methodology in this section is based on Boudarbat and Lemieux (2010).

these quantile gaps by running regressions where the dependent variable, Y_i, is replaced by the (recentered) influence function, called RIF_i. In this case, when the quantile of interest is *q(τ)*, RIF_i is defined as

$$RIF_i = q(\tau) + \frac{\left[\mathbb{I}\left(Y_i \geq q(\tau)\right) - (1-\tau)\right]}{f\left(q(\tau)\right)}, \tag{6}$$

where $\mathbb{I}\left(Y_i \geq q(\tau)\right)$ is simply a dummy variable indicating whether a wage observation is above a given quantile while all other terms are constants. Hence, running a regression of RIF_i on the X variables is equivalent to running a linear probability model for whether the wage for a given observation is above or below the quantile. Thus we run the following RIF regression:

$$RIF_i = \theta I_i + X_i\gamma + \epsilon_i. \tag{7}$$

The coefficient θ captures the adjusted or unexplained quantile difference between immigrants and the native born, while γ indicates the effects of the other covariates on the unconditional quantile. As in the case of the mean, the quantile gap can be decomposed as:

$$\Delta(\tau) = \theta + (\overline{X_I} - \overline{X_N})\gamma. \tag{8}$$

In the sequel, we run the decomposition analysis for full-time wage workers so that selection is less of an issue. The wage regression specifications include the standard covariates as before: educational attainment, experience (and its squared), and location controls. We omit variables that have no variation for native born, such as place of birth or cohort of arrival to adhere to the assumption of common support (Firpo, Fortin and Lemieux, 2011). We report the wage gap decompositions at the mean, 25th, 50th, and 75th quantiles of the wage distribution in Table 8. [22]

We start with a standard Oaxaca-Blinder decomposition for the mean wage gap by gender in panel A, based on the regression models from the previous sub-section, with the caveat specified above, for full-time wage workers only. The average immigrant wage gap is around 9.3% for men and 8.9% for women in favor of native-born. Only a small fraction of the gap (13%) appears "explained", using decomposition nomenclature. This part of the decomposition summarizes the

[22] Results at any other percentile are available on request.

way in which the relative distribution of endowments between immigrants and the native born contributes to the wage difference. Close examination shows that higher endowments of human capital among the French-born largely contribute to the earnings gap, while the distribution of immigrants across geographical areas has a negative contribution. In other words, immigrants have lower levels of human capital than the native born which contributes to the earnings difference, but they are more geographically concentrated in areas where salaries are higher, which should close the earnings gap. Hence, with the two main groups of variables pulling in different directions, the fraction of the gap that can be accounted for by the distribution of endowments is small. For the average immigrant woman, human capital has a stronger contribution to the gap, raising the "explained" component.

In the remainder of Table 8, we report the results from the quantile decomposition method running the wage gap decompositions at various quantiles of the wage distribution. In panel B, we see that the wage differential at the 25^{th} quantile between immigrants and native born is slightly lower than at the mean: 7.8% for men and 8.3% for women. While human capital endowments still have a positive contribution to the earnings difference the gaps, they are almost compensated by the negative effect of the geographical distribution, greatly reducing the explained fraction of the decomposition. For the median immigrant and native born (panel C, at the 50^{th} quantile of the wage distribution), the wage gap in favor of natives is about the same for men but increases to 12% for women compared to the 25^{th} quantile. At the median, the distribution of human capital endowments explains a significant portion of the difference for men, but not for women. At the top quantile of the distribution the wage gap is around 10% for both genders (Panel D). A large fraction of this gap is explained for men (19%), but it is for women that endowments explain the larger fraction of the earnings difference (38%).

Overall, the earnings gap decomposition analysis allows us to see how the immigrant wage gap evolves along the earnings distribution and how much human capital and geographic location account for the gap between immigrant and the native born. Earnings differences are larger at the extremes of the distribution for men, whereas for women differences are the largest at the median. These results are in contrast with Piazzalunga (2015), who performs a related exercise for Italian immigrant and shows similar results for men, but not for women. Italian immigrant women show an increasing gap along the wage distribution relative to their Italian-born counterparts. Human

capital endowments account for a fraction of the gap, as the French born are more educated than the immigrants, and this increases as we move up in the earnings distribution. Immigrants, however are located – relative to the French born - in areas where their earnings should be higher, hence location variables do not contribute to explain the gap. The unexplained part of the gap is substantial, pointing to other missing factors that could potentially affect the earnings differences, as discussed in the previous sub-section.

4. Concluding Remarks

In this paper, we show estimates of the educational attainment, labor force participation, and earnings of native-born and first generation immigrants in France. Our initial analysis points to important differences in the educational attainment and labor market outcomes depending on immigrant origin. We relate these differences in educational attainment to conventional demographic variables as well as controls on the parental educational and occupational background using the rich information in our data set. Our results on the educational attainment yield that the explanatory variables (age, marital status, residence, and parental socioeconomic background) explain an important part of the discrepancy in schooling between natives and immigrants. Moreover, the gender specific analysis revealed different patterns by area of origin, with immigrant men from Southern Europe, Asia and Eastern Europe and immigrant women from Maghreb, Middle East and Southern Europe, showing systematically lower educational attainment compared to French natives. This suggests that there might be other determinants of educational attainment we cannot account for here. These could be simply related to the tastes/preferences or opportunities about educational attainment as suggested in Chiswick (1988) or other unobserved individual characteristics.

Regarding labor market performance, we mainly focused on earnings. Accordingly, we observed that initial earnings differences between natives and immigrant groups partly vanish once standard controls such as education, experience, and host country language capacity are introduced. Our analysis accounts for selection issues into employment, which largely explained the wage gaps for women, but not for men. However, information on where education is completed, largely explains the remaining earning gaps between immigrants and natives, indicating the role played by the less-than-perfect international transferability of human capital from abroad to the host country.

An analysis of the wage distribution at various quantiles points to the importance of human capital and geographical location effects in explaining these gaps. Human capital has a larger positive impact in explaining the wage gaps at higher quantiles. Nonetheless, the unexplained wage gaps remain rather large along the distribution. Overall, these results indicate that there are possibly other factors playing a role in determining the earnings of immigrants. Such factors could be related to possible differential attitudes toward immigrants in the labor markets and/or other unobserved individual heterogeneity.[23] Therefore, it is important to aim at understanding the underlying mechanisms behind these empirical results as future research.

[23] Unfortunately, as our data is not a panel, but a cross-section, we are not able to control for individual fixed effects to account for the problem of unobserved heterogeneity.

References

Adsera, A. and A. Ferrer (2014), "The Myth of Immigrant Women as Secondary Workers: Evidence from Canada" *American Economic Review Papers and Proceedings*, vol. 104(3), pp. 360-364.

Aeberhardt, R., D. Fougère, J. Pouget, and R. Rathelot (2010). "Wages and employment of French workers with African origin", *Journal of Population Economics*, 23, 881-905.

Aeberhardt, R. and J. Pouget (2007). *National Origin Wage Differentials in France: Evidence from Matched Employer-Employee Data*, IZA Discussion Paper No. 2779.

Alba, R. and R. Silberman (2002). "Decolonization Immigrations and the Social Origins of the Second Generation: The Case of North African in France", *International Migration Review*, 36, 1169-1193.

Algan, Y., C. Landais, and C. Senik (2012). "Cultural Integration in France," in *Cultural Integration of Immigrants in Europe*, Algan, Y. Bisin, A., Manning, A. and T, Verdier (eds.), Oxford University Press.

Algan, Y., C. Dustmann, A. Glitz, and A. Manning (2010). "The Economic Situation of First and Second-Generation Immigrants in France, Germany and the United Kingdom," *The Economic Journal*, 120, F4-F30.

Antecol, H., P. Kuhn, and S.J. Trejo (2006), "Assimilation via prices or quantities? Sources of immigrant earnings growth in Australia, Canada, and the United States", *Journal of Human Resources*, 41(4), 821-840.

Basilio, L. T. Bauer and M. Sinning (2009) "Analyzing the labor market activity of immigrant families in Germany," *Labour Economics*, 16, 510-520.

Bauer, P. and R. T. Riphahn (2007). "Heterogeneity in the Intergenerational Transmission of Educational Attainments: Evidence from Switzerland on Natives and Second-Generation Immigrants," *Journal of Population Economics*, 20, 121-148.

Bauer, T. and K. F. Zimmermann (1999). *Occupational Mobility of Ethnic Migrants*, IZA Discussion Paper No. 58.

Beck, A., M. Corak, and M. Tienda (2012). "Age at Immigration and the Adult Attainments of Child Migrants to the United States," *The Annals of the American Academy of Political and Social Science*, 643, 134-159.

Becker, G. S. (1960). "An Economic Analysis of Fertility," In: *Demographic and Economic Change in Developed Countries*, NBER Chapters, 225-256.

Beenstock, M., B. R. Chiswick, and A. Paltiel (2010). "Testing the immigrant assimilation hypothesis with longitudinal data," *Review of Economics of the Household*, 8, 7-27.

Bell, B.D. (1997). "The Performance of Immigrants in the United Kingdom: Evidence from the GHS", *Economic Journal*, 107, 333-344.

Black, S. and P. J. Devereux (2011). "Recent Developments in Intergenerational Mobility," in *Handbook of Labor Economics, 4B, Chapter 16.* Amsterdam; Elsevier.

Borjas, G. J. (1995) "Assimilation, Changes in Cohort Quality Revisited and the Earnings of Immigrants" *Journal of Labor Economics* 13: 201-45.

_____ (2013). *The Slowdown in the Economic Assimilation of Immigrants: Aging and Cohort Effects Revisited Again*, NBER WP 19116.

Boudarbat, B. and T. Lemieux (2010). "Why are the Relative Wages of Immigrants Declining? A Distributional Approach", Canadian Labour Market and Skills Researcher Network (CLSRN), Working Paper No. 65.

Card, D. (1999) "The causal effect of education on earnings" in *Handbook of Labor Economics*, O. Ashenfelter, R. Layard, and D. Card, eds., Elsevier.

Chiswick, B. R. (1978). "The Effect of Americanization on the Earnings of Foreign-born Men", *Journal of Political Economy,* 86, 897-921.

_____(1986). "Is the New Immigration Less Skilled than the Old?," *Journal of Labor Economics,* 4(2), 168-192.

_____ (1988). "Differences in Education and Earnings across Racial and Ethnic Groups: Tastes, Discrimination, and Investments in Child", *Quarterly Journal of Economics*, 103, 571-597.

Chiswick, B. R. and P. W. Miller (2009). "The international transferability of immigrants' human capital," *Economics of Education Review*, 28, 162-169.

Chiswick, B. R. and N. DebBurman (2004). "Educational Attainment: Analysis by Immigrants Generation," *Economics of Education Review*, 23, 361-379.

Clark, K. and J. Lindley (2009). "Immigrant assimilation pre and post labour market entry: evidence from the UK Labour Force Survey," *Journal of Population Economics*, 22, 175-198.

Constant, A. (2003). "Immigrant Adjustment in France and Impacts on the Natives", IZA Discussion Paper No. 866.

Dos Santos, M. D. and F.-C. Wolff (2011). "Human capital background and the educational attainment of second-generation immigrants in France", *Economics of Education Review*, 30, 1085-1096.

Duleep, H. O. and S. Sanders (1993). "The Decision to Work by Married Immigrant Women", *Industrial and Labor Relations Review*, 46, 677-690.

Dustmann, C. and A. van Soest (2001). "Language Fluency and Earnings: Estimation with Misclassified Language Indicators", *Review of Economics and Statistics*, 83, 663-674.

Dustmann, C. and A. van Soest (2002). "Language and the Earnings of Immigrants", *Industrial and Labor Relations Review*, 55, 473-492.

Dustmann, C. and F. Fabbri (2003). "Language Proficiency and Labour Market Performance of Immigrants in the UK", *Economic Journal*, 113, 695-717.

Dustmann, C. and A. Glitz (2011). "Migration and Education," in *Handbook of the Economics of Education*, Volume 4, edited by E. S. Hanushek, S. Machin, and L. Woessmann, Elsevier.

Ferrer, A. and W. C. Riddell (2008). "Education, Credentials, and Immigrant Earnings," *The Canadian Journal of Economics*, 41, 186-216.

Firpo, S., N. Fortin, and T. Lemieux (2011). "Decomposition Methods in Economics" in *Handbook of Labor Economics, 4th Edition*, edited by D. Card and O. Ashenfelter, Elsevier.

Friedberg, R.M. (2000). "You Can't Take It with You? Immigrant Assimilation and the Portability of Human Capital," *Journal of Labor Economics*, 18(2), 221-51.

Lemieux, T. (2003). *The "Mincer Equation" Thirty Years after Schooling, Experience, and Earnings*, Center for Labor Economics, University of California, Berkeley, Working Paper No. 62.

McDonald, J.T. and C. Worswick (1998). "The Earnings of immigrant men in Canada: Job tenure, cohort, and macroeconomic conditions," *Industrial and Labor Relations Review*, 51(3), 465-482,

Meurs, D., A. Pailhe, and P. Simon (2006). "The Persistence of International Inequalities Linked to Immigration: Labour Market Outcomes for Immigrants and Their Descendants in France," *Population*, 61, 645-682.

Piazzalunga, D. (2015). "Is There a Double Negative Effect? Gender and Ethnic Wage Differences in Italy", *forthcoming Labour*

OECD (2012). *International Migration Outlook 2012*, OECD Publishing.

Picott, G. and F. Hou (2009) "The Effect of Immigrant Selection and the IT Bust on the Entry Earnings of Immigrants" *CLSRN WP #29*

Zaiceva, A. and K. F. Zimmermann (2008). "Scale, diversity, and determinants of labour migration in Europe", *Oxford Review of Economic Policy*, 24, 428-452.

Tables and Figures

Table 1 Sample Proportions of Different Groups in France

		Percentage	
Natives		87.3	(3,498)
DOM		1.0	(684)
First Generation		11.7	(8,163)
Region of Origin of First Generation Immigrants			
	Maghreb	*32.48*	
	Southern Europe	*18.43*	
	Africa	*13.85*	
	Asia	*9.07*	
	Middle East	*8.30*	
	Western and Northern Europe	*7.95*	
	Eastern Europe	*5.85*	
	Others	*4.08*	
Total sample size		12,345	

Notes: Unweighted sample sizes are in parentheses. Source: TeO.

Details on the Regional Categories:

- *DOM:* Guadeloupe, French Guiana, Martinique, Reunion
- *Maghreb:* Algeria, Morocco, Tunisia
- *Africa:* Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Mali, Mauritania, Niger, Nigeria, Senegal, Togo
- *Asia:* Cambodia, Laos, Vietnam, and the rest
- *Middle East:* Middle East and Turkey
- *Southern Europe:* Greece, Italy, Portugal, Spain
- *Western and Northern Europe:* Austria, Belgium, Denmark, Finland, Germany, Ireland, Lichtenstein, Island, Luxemburg, Netherlands, Norway, Sweden, United Kingdom
- *Eastern Europe:* Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovenia, Slovakia
- *Others:* North America, Central America, South America, Oceania.

Table 2 Summary Statistics of Variables of Interest of Main Populations in France

	NB	DOM	FG
Age	41.07	39.90	41.75
	(11.64)	(10.80)	(10.69)
Nb. of sibling(s)	2.466	5.196	4.730
	(2.279)	(3.571)	(3.635)
Married	0.487	0.398	0.660
	(0.500)	(0.490)	(0.474)
Nb. of children	1.407	1.627	2.007
	(1.274)	(1.482)	(1.700)
Big city residence	0.333	0.687	0.636
	(0.471)	(0.464)	(0.481)
Education (years)	11.20	9.971	9.643
	(3.922)	(4.530)	(5.183)
Years since migration	-	22.52	21.45
		(11.59)	(13.31)
Arrival age	-	17.38	20.30
		(8.846)	(11.13)
Language fluency	-	-	0.334
			(0.472)
Mother's education			
Low	0.527	0.590	0.724
	(0.499)	(0.492)	(0.447)
Middle	0.294	0.215	0.134
	(0.456)	(0.411)	(0.340)
High	0.0847	0.0614	0.0892
	(0.278)	(0.240)	(0.285)
Father's education			
Low	0.447	0.513	0.621
	(0.497)	(0.500)	(0.485)
Middle	0.323	0.153	0.152
	(0.468)	(0.360)	(0.359)
High	0.108	0.0626	0.135
	(0.310)	(0.242)	(0.342)
LFP	0.863	0.917	0.801
	(0.344)	(0.276)	(0.400)
Employment	0.789	0.854	0.699
	(0.408)	(0.354)	(0.459)
Monthly wage (€)	1750.2	1553.4	1582.4
	(1640.3)	(648.2)	(1086.9)
Log monthly wage	7.316	7.279	7.211
	(0.537)	(0.363)	(0.559)
Observations	3,498	684	8,163

Notes: Educational attainment is measured in years. Parental education has four categories: missing (shares not reported, corresponding to the remainder of the other three categories), low (up to primary school), middle (up to high school), and high (university or more) levels of education. Big city is defined as the city with more than 200,000 inhabitants. Age at arrival is the age at which the individual arrived to France. Marital status, big city residence, language fluency, LFP, and employment variables are all indicator variables (0-1) and show the share of individuals with value 1. Sample weights provided in the data are used to scale up the numbers to have them representative at the national levels. Source: TeO.

Table 3 Summary Statistics of Education and Labor Market Outcomes by Country of Origin

	France	DOM	Maghreb	Africa	Asia	Middle East	Southern Europe	West/North Europe	Eastern Europe	Others
					(a) Men					
Education (years)	11.08	9.641	9.221	11.49	10.34	10.22	7.483	12.30	10.73	12.37
	(3.951)	(4.517)	(5.169)	(4.910)	(5.309)	(5.350)	(4.426)	(4.681)	(4.307)	(4.930)
LFP	0.893	0.939	0.913	0.948	0.931	0.932	0.880	0.870	0.935	0.917
	(0.309)	(0.240)	(0.281)	(0.223)	(0.254)	(0.251)	(0.326)	(0.338)	(0.247)	(0.277)
Monthly wage (€)	2045.2	1662.5	1651.4	1578.5	1658.8	2017.3	1875.5	2789.8	1726.7	2362.9
	(2168.6)	(708.5)	(998.1)	(929.2)	(1197.1)	(1697.7)	(920.4)	(2009.7)	(1193.2)	(2430.8)
					(b) Women					
Education (years)	11.32	10.27	8.275	9.276	10.46	8.490	7.614	13.24	12.97	12.10
	(3.892)	(4.527)	(5.110)	(4.662)	(5.319)	(5.161)	(4.773)	(3.339)	(4.563)	(4.984)
LFP	0.835	0.897	0.608	0.773	0.715	0.465	0.789	0.709	0.809	0.799
	(0.371)	(0.305)	(0.488)	(0.419)	(0.452)	(0.499)	(0.408)	(0.455)	(0.394)	(0.402)
Monthly wage (€)	1456.8	1449.8	1180.7	1135.4	1297.9	1289.2	1307.7	1655.1	1552.1	1578.7
	(720.7)	(567.4)	(630.1)	(523.7)	(720.6)	(782.1)	(733.8)	(1004.9)	(1016.1)	(886.2)

Notes: Authors' calculations. Source: TeO.

Table 4 Educational Attainment

	Men			Women		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Immigration status						
FG	-1.268***			-1.264***		
	(0.258)			(0.223)		
DOM	-1.482***			-0.488		
	(0.368)			(0.323)		
Immigrant origins						
DOM		-2.803***	-0.971*		-1.804***	0.354
		(0.600)	(0.552)		(0.495)	(0.431)
Maghreb		-3.166***	-0.793		-3.901***	-1.187***
		(0.565)	(0.539)		(0.464)	(0.434)
Africa		-0.896	0.626		-3.051***	-0.861**
		(0.582)	(0.541)		(0.470)	(0.422)
Asia		-1.985***	-1.071*		-1.161***	-0.832*
		(0.631)	(0.569)		(0.532)	(0.440)
Middle East		-2.3112***	-0.723		-3.874***	-1.867***
		(0.622)	(0.565)		(0.539)	(0.456)
Southern Europe		-4.857***	-2.987***		-3.999***	-2.011***
		(0.592)	(0.546)		(0.496)	(0.438)
Western & Northern Europe		0.161	-0.259		1.363***	0.634
		(0.644)	(0.577)		(0.466)	(0.404)
Eastern Europe		-1.724**	-1.234**		0.663	-0.050
		(0.680)	(0.619)		(0.515)	(0.423)
Constant	8.155***	8.166***	6.148***	8.808***	8.888***	4.936***
Cohort effects	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Family background controls	No	No	Yes	No	No	Yes
Adjusted R2	0.053	0.064	0.197	0.077	0.100	0.304
Number of observations	5,659	5,659	5,659	6,235	6,235	6,235

Notes: The dependent variable is years of education attained. All specifications use sampling weights. The reference group is the natives in all models. Cohort effects are dummy variables of arrival period to France by 10-year intervals. Demographic controls include age and age squared. Family background controls include parental education and occupation with four categories each (as displayed in the summary statistics table) plus a variable indicating the number of siblings. Robust standard errors are in parentheses. Conventional significance level notation is used: *: p< 0.1; **: p<0.05; ***: p<0.01. Source: TeO.

Table 5 Labor Force Participation

	Men		Women	
	(1)	(2)	(3)	(4)
Immigration status				
FG	-0.008		-0.200***	
	(0.011)		(0.017)	
DOM	-0.006		-0.071**	
	(0.017)		(0.029)	
Immigrant origins				
DOM		-0.000		-0.071**
		(0.018)		(0.030)
Maghreb		-0.003		-0.219***
		(0.013)		(0.021)
Africa		-0.010		-0.110***
		(0.015)		(0.027)
Asia		-0.006		-0.213***
		(0.017)		(0.031)
Middle East		-0.014		-0.349***
		(0.014)		(0.028)
Southern Europe		0.029*		-0.156***
		(0.016)		(0.026)
Western & Northern Europe		-0.005		-0.245***
		(0.014)		(0.025)
Eastern Europe		-0.015		-0.173***
		(0.017)		(0.028)
Others		-0.036*		-0.159***
		(0.021)		(0.035)
Human capital controls				
Education	0.006***	0.006***	0.011***	0.011***
	(0.001)	(0.001)	(0.002)	(0.002)
Age	0.015***	0.015***	0.041***	0.041***
	(0.003)	(0.003)	(0.006)	(0.006)
Age squared	-0.000***	-0.000***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Language fluency	0.002	-0.001	0.014	0.009
	(0.008)	(0.008)	(0.014)	(0.014)
Family controls				
Married	-0.003	-0.003	-0.033*	-0.031
	(0.012)	(0.012)	(0.020)	(0.020)
Nb. of children	0.007*	0.007*	-0.061***	-0.061***
	(0.004)	(0.004)	(0.009)	(0.009)
Spouse' employment	0.033***	0.032***	0.008	0.009
	(0.010)	(0.010)	(0.020)	(0.020)
Region effects	Yes	Yes	Yes	Yes
Cohort effects	Yes	Yes	Yes	Yes
Pseudo R squared	0.3850	0.3862	0.1963	0.2006
Observations	5,693	5,693	6,266	6,266

Notes: The dependent variable is the indicator variable of labor force participation. Marginal effects from probit estimates are reported. All specifications use sampling weights. The reference group is the natives in all models. Cohort effects are dummy variables of arrival period to France by 10-year intervals. Region effects are dummy variables to control for region of residence in France. Robust standard errors are in parentheses. Conventional significance level notation is used: *: p< 0.1; **: p<0.05; ***: p<0.01. Source: TeO.

Table 6 Wage Regressions with Origins

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	Selection	Full time	OLS	Selection	Full time
Immigrant origins						
DOM	-0.132***	-0.130***	-0.109***	0.013	0.064	-0.024
	(0.039)	(0.039)	(0.038)	(0.044)	(0.044)	(0.039)
Maghreb	-0.176***	-0.174***	-0.143***	-0.191***	-0.060	-0.106**
	(0.033)	(0.033)	(0.032)	(0.052)	(0.052)	(0.044)
Africa	-0.348***	-0.347***	-0.291***	-0.206***	-0.077*	-0.154***
	(0.045)	(0.045)	(0.044)	(0.047)	(0.046)	(0.040)
Asia	-0.272***	-0.270***	-0.152***	-0.260***	-0.132**	-0.181***
	(0.060)	(0.060)	(0.050)	(0.071)	(0.058)	(0.069)
Middle East	-0.059	-0.056	-0.035	-0.115	0.006	-0.042
	(0.046)	(0.046)	(0.046)	(0.074)	(0.073)	(0.059)
Southern Europe	0.038	0.037	0.042	-0.079	-0.033	-0.038
	(0.042)	(0.042)	(0.040)	(0.055)	(0.055)	(0.051)
West & North Europe	0.044	0.047	0.093	-0.115*	0.007	-0.003
	(0.060)	(0.060)	(0.058)	(0.060)	(0.053)	(0.051)
Eastern Europe	-0.157***	-0.155***	-0.171***	-0.185***	-0.061	-0.048
	(0.058)	(0.058)	(0.048)	(0.060)	(0.059)	(0.048)
Others	-0.236***	-0.235***	-0.199**	-0.146**	-0.027	-0.041
	(0.085)	(0.084)	(0.090)	(0.067)	(0.059)	(0.054)
Human capital						
Education	0.063***	0.062***	0.062***	0.071***	0.057***	0.063***
	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)
Experience	0.039***	0.037***	0.033***	0.029***	0.015***	0.026***
	(0.005)	(0.005)	(0.004)	(0.005)	(0.004)	(0.004)
Experience squared	-0.001***	-0.000***	-0.000***	-0.000***	0.000	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Language fluency	0.030	0.029	0.036	0.033	0.034	0.024
	(0.026)	(0.026)	(0.025)	(0.027)	(0.026)	(0.023)
Constant	6.567***	6.603***	6.605***	6.156***	6.555***	6.382***
	(0.162)	(0.172)	(0.166)	(0.123)	(0.095)	(0.091)
Cohort effects	Yes	Yes	Yes	Yes	Yes	Yes
Region effects	Yes	Yes	Yes	Yes	Yes	Yes
Heckman correction	No	Yes	No (FT)	No	Yes	No (FT)
Goodness of fit	0.372	793.35	0.373	0.271	368.97	0.411
Observations	4,035	4,035	3,841	3,806	3,806	2,669

Notes: The dependent variable is the logarithm of monthly wages. All specifications use sampling weights. The reference group is the natives in all models. Cohort effects are dummy variables of arrival period to France by 10-year intervals. Region effects are dummy variables to control for region of residence in France. First stage of the Heckman procedure uses age, age squared, education, marital status, number of children, employment of the spouse, big city residence, and house ownership to explain selection into employment. Columns 3 and 6 are specifications for full-time (FT) wage workers only. Goodness of fitness statistics are adjusted R squared in OLS regressions and Chi-squared in Heckman selection correction specifications. Robust standard errors are in parentheses. Conventional significance level notation is used: *: p< 0.1; **: p<0.05; ***: p<0.01. Source: TeO.

Table 7 Wage Regressions with Immigration Status by Place of Educational Attainment

	Men		Women	
	(1)	(2)	(3)	(4)
	Abroad	France	Abroad	France
Immigrant origins				
DOM	-0.114**	-0.040	0.076	0.020
	(0.045)	(0.055)	(0.049)	(0.053)
Maghreb	-0.173***	0.014	-0.114*	-0.020
	(0.037)	(0.090)	(0.063)	(0.076)
Africa	-0.341***	-0.100	-0.134**	0.136
	(0.056)	(0.102)	(0.052)	(0.085)
Asia	-0.319***	-0.031	-0.238***	-0.099
	(0.080)	(0.106)	(0.074)	(0.094)
Middle East	-0.050	0.061	-0.092	-0.075
	(0.048)	(0.095)	(0.079)	(0.121)
Southern Europe	0.097**	0.137	-0.001	-0.045
	(0.047)	(0.091)	(0.072)	(0.077)
Western & Northern Europe	0.173**	-0.003	0.020	-0.282*
	(0.070)	(0.120)	(0.066)	(0.162)
Eastern Europe	-0.249***	0.194	-0.096	-0.124
	(0.058)	(0.241)	(0.074)	(0.131)
Others	-0.183*	-0.264	-0.055	0.202
	(0.108)	(0.176)	(0.069)	(0.168)
Human capital				
Education	0.063***	0.066***	0.058***	0.061***
	(0.004)	(0.004)	(0.005)	(0.006)
Experience	0.039***	0.039***	0.016***	0.016***
	(0.006)	(0.006)	(0.005)	(0.005)
Experience squared	-0.001***	-0.001***	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Language fluency	0.028	0.073	0.039	0.036
	(0.037)	(0.055)	(0.038)	(0.045)
Constant	6.597***	6.584***	6.541***	6.499***
	(0.187)	(0.207)	(0.101)	(0.110)
Cohort effects	Yes	Yes	Yes	Yes
Region effects	Yes	Yes	Yes	Yes
Heckman selection correction	Yes	Yes	Yes	Yes
Goodness of fit (Chi squared)	759.95	603.84	358.64	312.18
Observations	2,843	1,878	2,801	2,017

Notes: The dependent variable is the logarithm of monthly wages. All specifications use sampling weights. The reference group is the natives in all models. Cohort effects are dummy variables of arrival period to France by 10-year intervals. Region effects are dummy variables to control for region of residence in France. First stage of the Heckman procedure uses age, age squared, education, marital status, number of children, employment of the spouse, big city residence, and house ownership to explain selection into employment. Robust standard errors are in parentheses. Conventional significance level notation is used: *: p< 0.1; **: p<0.05; ***: p<0.01. Source: TeO.

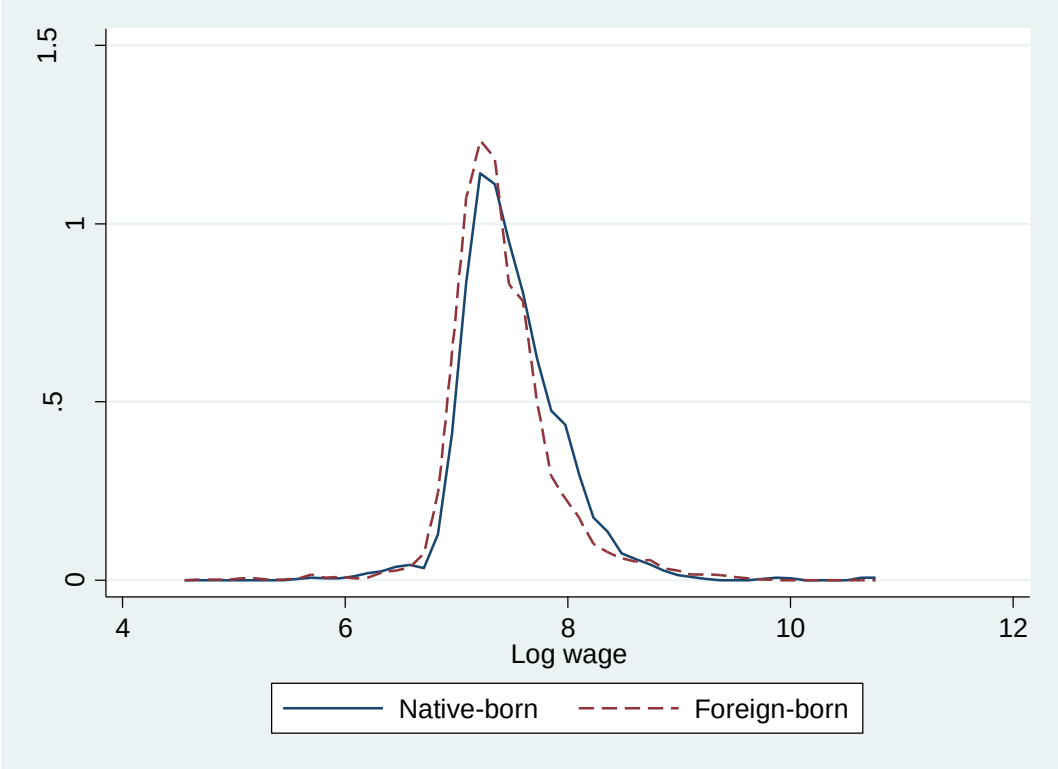
Table 8 Quantile Wage Gap Decompositions

A. At mean		
	Men	**Women**
Wage gap	0.093	0.089
Total unexplained	0.081	0.067
Total explained	0.012 (13%)	0.022 (25%)
Human capital	0.051	0.070
Location	-0.038	-0.048
B. 25th quantile		
	Men	**Women**
Wage gap	0.078	0.083
Total unexplained	0.074	0.075
Total explained (%)	0.004 (5%)	0.007 (8%)
Human capital	0.023	0.035
Location	-0.019	-0.027
C. 50th quantile		
	Men	**Women**
Wage gap	0.077	0.120
Total unexplained	0.054	0.111
Total explained (%)	0.023 (30%)	0.009 (0.8%)
Human capital	0.052	0.064
Location	-0.029	-0.055
D. 75th quantile		
	Men	**Women**
Wage gap	0.104	0.102
Total unexplained (%)	0.842	0.062
Total explained	0.020 (19%)	0.039 (38%)
Human capital	0.080	0.090
Location	-0.059	-0.050

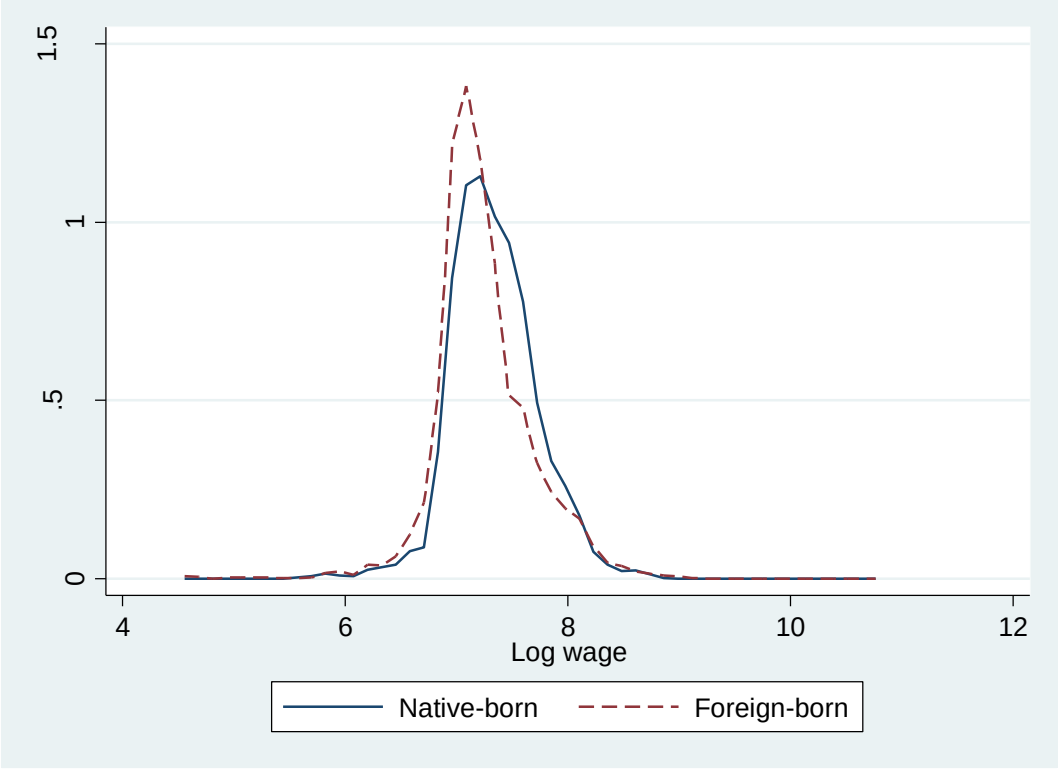
Notes: Mean wage decompositions are done using Oaxaca-Blinder method. Quantile wage gap decompositions are done using the method proposed by Firpo, Fortin, and Lemieux (2011). Only full-time wage workers are considered. The reference group is the natives. The covariates used in the model are human capital controls (education, experience, and its squared) and dummy variables for geographical location. Standard errors are robust (not reported). Source: TeO.

Figure 1 Wage Distributions

(a) Men



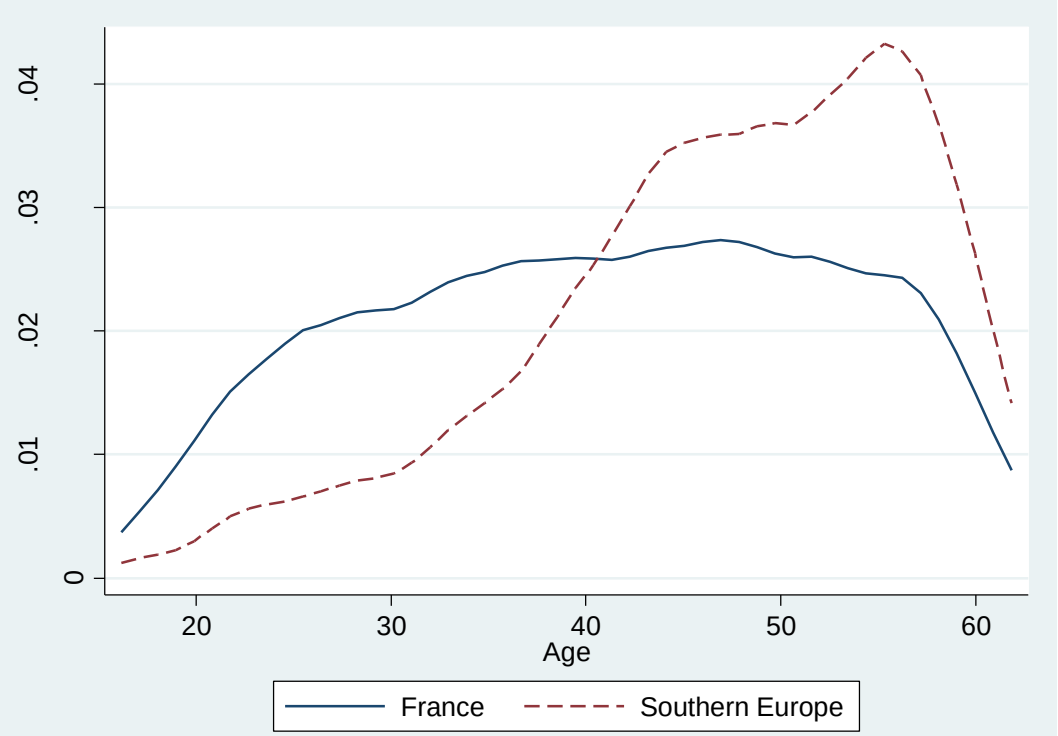
(b) Women



Appendix

Figure 2 Age Distributions of Natives and Southern Europeans

(a) Men



(b) Women

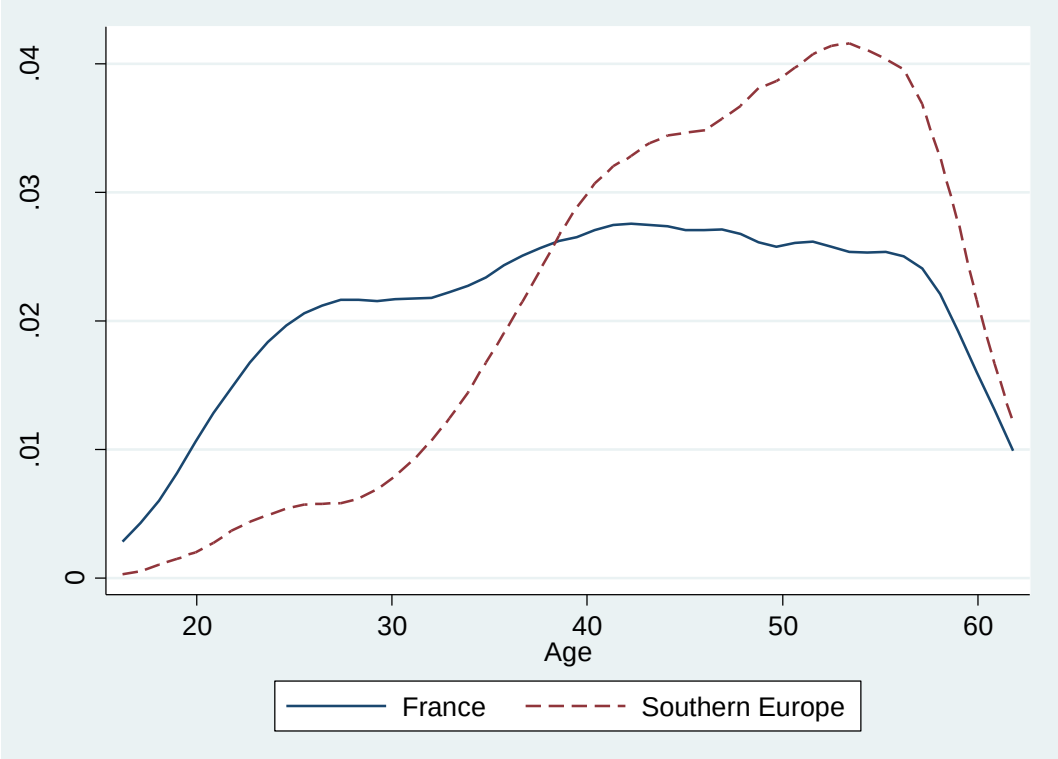


Table A1 Wage Regressions with Immigration Status

	Men				Women			
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Immigration status								
FG	-0.303***	-0.174***	-0.172***	-0.131***	-0.298***	-0.176***	-0.055	-0.090**
	(0.034)	(0.033)	(0.032)	(0.031)	(0.041)	(0.041)	(0.041)	(0.037)
DOM	-0.338***	-0.147***	-0.145***	-0.124***	-0.123***	0.003	0.062	-0.022
	(0.042)	(0.039)	(0.039)	(0.038)	(0.046)	(0.043)	(0.043)	(0.038)
Human capital controls								
Education		0.062***	0.061***	0.062***		0.071***	0.058***	0.064***
		(0.004)	(0.004)	(0.004)		(0.005)	(0.005)	(0.004)
Experience		0.039***	0.037***	0.033***		0.029***	0.015***	0.026***
		(0.005)	(0.005)	(0.004)		(0.005)	(0.004)	(0.004)
Experience squared		-0.001***	-0.000***	-0.000***		-0.000***	0.000	-0.000***
		(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.000)
Language fluency		0.056**	0.056**	0.057**		0.044	0.037	0.037
		(0.026)	(0.026)	(0.025)		(0.028)	(0.026)	(0.023)
Constant	7.960***	6.573***	6.610***	6.612***	7.474***	6.152***	6.551***	6.376***
	(0.136)	(0.162)	(0.172)	(0.166)	(0.057)	(0.123)	(0.095)	(0.091)
Cohort effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heckman correction	No	No	Yes	No (FT)	No	No	Yes	No (FT)
Goodness of fit	0.105	0.367	690.1	0.369	0.071	0.272	333.69	0.411
Observations	4,035	4,035	4035	3,841	3,806	3,806	3806	2,669

Notes: The dependent variable is the logarithm of monthly wages. All specifications use sampling weights. The reference group is the natives in all models. Cohort effects are dummy variables of arrival period to France by 10-year intervals. Region effects are dummy variables to control for region of residence in France. First stage of the Heckman procedure uses age, age squared, education, marital status, number of children, employment of the spouse, big city residence, and house ownership to explain selection into employment. Columns 4 and 8 are specifications for full-time (FT) wage workers only. Goodness of fitness statistics are adjusted R-squared in OLS regressions and Chi-squared in Heckman selection correction specifications. Robust standard errors are in parentheses. Conventional significance level notation is used: *: p< 0.1; **: p<0.05; ***: p<0.01. Source: TeO.

Table A2 Wage Regressions with Immigration Status by Place of Educational Attainment

	Men		Women	
	(1)	(2)	(3)	(4)
	Abroad	France	Abroad	France
Immigration status				
FG	-0.151***	0.038	-0.091**	-0.021
	(0.035)	(0.078)	(0.046)	(0.070)
DOM	-0.128***	-0.039	0.069	0.020
	(0.045)	(0.055)	(0.047)	(0.053)
Human capital controls				
Education	0.063***	0.066***	0.058***	0.061***
	(0.004)	(0.004)	(0.005)	(0.006)
Experience	0.038***	0.039***	0.015***	0.016***
	(0.006)	(0.006)	(0.005)	(0.005)
Experience squared	-0.001***	-0.001***	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Language fluency	0.054	0.080	0.055	0.025
	(0.038)	(0.054)	(0.038)	(0.046)
Constant	6.595***	6.584***	6.535***	6.501***
	(0.186)	(0.206)	(0.101)	(0.110)
Cohort effects	Yes	Yes	Yes	Yes
Region effects	Yes	Yes	Yes	Yes
Heckman selection correction	Yes	Yes	Yes	Yes
Goodness of fit (Chi squared)	627.7	587.96	318.8	302.86
Observations	2843	1878	2801	2017

Notes: The dependent variable is the logarithm of monthly wages. All specifications use sampling weights. The reference group is the natives in all models. Cohort effects are dummy variables of arrival period to France by 10-year intervals. Region effects are dummy variables to control for region of residence in France. First stage of the Heckman procedure uses age, age squared, education, marital status, number of children, employment of the spouse, big city residence, and house ownership to explain selection into employment. Robust standard errors are in parentheses. Conventional significance level notation is used: *: p< 0.1; **: p<0.05; ***: p<0.01. Source: TeO.