A non-ethnic explanation of immigrants educational disadvantage : the case of lower secondary education in France

Author(s):	Cebolla Boado, Héctor
Year:	2008
Type	Thesis (doctoral)
University:	Instituto Juan March de Estudios e Investigaciones, Centro de Estduios Avanzados en Ciencias Sociales, University of Oxford, 2007.
City:	Madrid
Number of pages:	xv, 368 p.
Abstract:	La tesis fue defendida en la Universidad de Oxford, bajo la supervisión conjunta de Anthony Heath y Yasemin Soysal. La tesis estudia las diferencias educativas entre estudiantes de origen inmigrante y estudiantes nativos, y pretende, sobre todo, averiguar si tales diferencias responden en mayor medida a desventajas económicas y de capital cultural o a factores estrictamente étnicos. Las diferencias educativas, ¿se deben a las desigualdad de clase o a una desventaja de naturaleza étnica? La tesis analiza un panel de 19.000 estudiantes en Francia, con estudiantes franceses, por una parte, y, por otra, con estudiantes de origen europeo, norteafricano, subsahariano, turco e indochino. El análisis estadístico demuestra que la clave de las diferencias educativas entre estudiantes de familias nativas y de familias inmigrantes se debe a las desigualdades económicas y no a desventajas asociadas con la etnia

Instituto Juan March de Estudios e Investigaciones

HÉCTOR CEBOLLA BOADO

A NON-ETHNIC EXPLANATION OF IMMIGRANTS
EDUCATIONAL DISADVANTAGE:
THE CASE OF LOWER SECONDARY EDUCATION
IN FRANCE

MADRID
2 0 0 8

Centro de Estudios Avanzados en Ciencias Sociales

Esta obra se presentó como tesis doctoral en el Departamento de Sociología de la Universidad de Oxford el día 13 de noviembre de 2007. El Tribunal estuvo compuesto por los profesores doctores D. Jonathan Gershuny y D. Louis André Vallet.

Héctor Cebolla Boado es licenciado en Ciencias Políticas y de la Administración por la Universidad Complutense de Madrid (UCM). Formó parte de la decimocuarta promoción de estudiantes del Centro de Estudios Avanzados en Ciencias Sociales del Instituto Juan March, donde obtuvo el título de Master en 2003. Realizó su tesis doctoral en el Centro bajo la supervisión de la Profesora Yasemin Soysal y en la Universidad de Oxford bajo la dirección del Prof. Anthony Heath.

CONTENTS

iv

List of Tables

Chapter 4

Chapter 5

Chapter 6

List of Graphs

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

Chapter 6

Chapter 8

Appendix

x

ABSTRACT

This thesis seeks to explain the unequal educational attainment of the children of immigrant and native families enrolled in lower secondary schools in France (*collège*). The empirical analyses focus on several indicators of educational attainment including the grades obtained in mathematics and French over time and the tracking of students in upper secondary school. The thesis reveals that differentials in the selection of immigrant and native students to different tracks are explained by their unequal average school performance. As a consequence, a significant effort is devoted to explain immigrant-native differentials in the grades obtained by the students at the beginning of the *collège*. To do so the thesis applies a twofold research strategy with the aim of disentangling the impact of social origin from that of ethnic ascriptive mechanisms of educational inequality. On the one hand, the *social origin approach* to the explanation of the immigrant effect in educational attainment implies that all students are educationally stratified according to the same sort of mechanisms linked to their families' social origin, irrespective of theirs and their parents' migrant status. On the other hand, the *ethnic approach* suggests that the educational attainment of the children of immigrant families is determined both by social origin and ethnic-related factors. In agreement with the wider international and French specialized literature, the thesis concludes that most of the immigrant effect in attainment can be accounted for by social origin mediating mechanisms, and that the role of ethnic-related explanations is at best modest. The processes behind the unequal school performance of immigrant and native students are basically the same. Yet, it can also be argued that immigrant families lack sophisticated information regarding the functioning of the school

system and are unable to advice and successfully motivate their children.

ACKNOWLEDGEMENTS

CHAPTER 1. INTRODUCTION TO A THESIS ON THE EDUCATIONAL ATTAINMENT OF IMMIGRANTS IN FRANCE

1.1. Ethnicity and social origin in the explanation of the immigration effect in education

An *immigrant effect* in a given indicator of socioeconomic status refers to the existence of significant differentials between the immigrant and the native population. The socioeconomic disadvantage of immigrants in advanced democracies, where school is a universal right, is a widely accepted empirical regularity. The literature highlights the existence of immigrant effects on key socioeconomic aspects such as wage differentials or female labour market participation. Given that education is known to be a strong mediator between social origins and destinations in contemporary developed societies (Breen and Luijkx, 2004), the extent to which the school systems help to bridge the gap between immigrants and natives is of central importance to immigration-receiving countries. Equalizing the educational attainment of the foreign-born and their offspring with that of the natives in industrialised societies has critical implications for the present and future social cohesion of migrant-receiving nations where the foreign-born form a significant part of the population.

Even though in most countries immigrants are motivated learners and have positive attitudes towards education, their school results fall behind their native counterparts (Stanat and

Christensen, 2006). International surveys of learning achievement have revealed notable differences in the educational performance of immigrants and natives, but also that a large part of these differentials is explained by a compositional effect due to the unequal class stratification of immigrants and natives (Schnepf, 2004).[1] While this is generally true for advanced economies, there are large cross-national differences. The educational attainment of immigrants and natives is fairly equal in Australia, Canada and New Zealand; slightly different in Luxembourg, Norway, Sweden, the US and Russia; and clearly dissimilar in many continental European countries –especially in Austria, Belgium, Denmark, France, Germany, the Netherlands and Switzerland- (OECD, 2006). Furthermore, in this last group of countries, one fourth of the immigrant students do not reach the minimum basic literacy in mathematics or reading as defined by the OECD, and 10 per cent of them are at serious risk of not reaching the essential reading and maths skills required for daily life (Stanat and Christensen, 2006: 54).

Certain country studies have shown that immigrants in the Western world present low levels of achievement, little pursuit of higher types of education and high dropout rates (Driesen and Geert, 2000; Demack *et al.*, 2000; Riphahn, 2001; Baker *et al.*, 1985; Kristen, 2000). Nonetheless, there are grounds for optimism at least in the US, since racial and ethnic differentials in educational achievement have narrowed over the past three decades by every measure available –test scores, grades, educational aspirations, tracking and course taking in high school, high school completion and transition to university-, and because most of this immigrant disadvantage is explained by parental social origin (Kao and Thompson, 2003). Surprisingly, this also occurs among the so-called second generations (Portes and

---

[1] Trends in International Maths and Science Study (TIMSS), the Programme of International Student Assessment (PISA) and the Programme of International Reading Literacy (PIRLS).

MacLeod, 1996).[2] All this is confirmed in a set of empirical papers compiled in a forthcoming special issue of the journal *Ethnicities* (Heath and Brinbaum, 2007) which includes papers on Belgium, England and Wales, France, Germany, the Netherlands, Norway and the USA.[3]

This thesis measures and seeks to explain the poorer educational performance of immigrant children –and the native-born children of immigrants- with respect to the native population in France. More specifically it asks: *do immigrants really underperform natives?* And if this is the case, *why do they do so*? And *when does the immigrant effect become significant*? More importantly *are there ethnic differentials within the immigrant population*? And *what causes these ethnic residuals in attainment*?

Many of these questions have largely been answered in the specialised literature, but my research contributes to the broader research agenda in several ways. The thesis draws both on longstanding and recent theories to explain class and ethnic differentials in education. In recent times, there has been a strong growth in sociological works studying the status attainment of the immigrant population in advanced democracies. Yet, many of these works appear to suggest that the sociological study of immigration is a separate branch disconnected from related mainstream sociological literature. As a consequence, the scientific ideal of a constant dialogue with other relevant sociological literature –including those on the educational and occupational attainment of natives, female labour market involvement, family structure, poverty, etc- has only rarely been satisfied. This has disconnected the immigration literature from

---

[2] Foreign born residents in host societies face serious obstacles to succeed including low language proficiency and country specific skills, the incomplete transferability of their accumulated human capital, and the sort of financial difficulties linked to the migration experience – remittances to their country of origin, funding trips for family reunification, etc.

[3] The paper on France was written by Brinbaum and Cebolla-Boado (2007) and confirms the basics of chapters five and six.

the advancements and improvements of the wider sociological research. For certain scholars the status attainment of immigrants is strongly constrained by a set of immigration-specific variables whose empirical effect is normally uncontested. Among these, ethnicity is frequently highlighted. For instance, some of the best-known theoretical work on immigration emphasizes the importance of ethnicity as a strong determinant of individual behaviour through peer-pressures framed by community structures and ethnic social networks (Portes and Rumbaut, 1996; Borjas, 1992a). The increase in theories linking ethnic inequalities with social interactions between co-ethnics follows the broader increase in sociological explanations with a focus on social capital (Portes, 1998). These arguments link micro and macro levels depicting collective structures that shape individual behaviour. Nonetheless, the specialised literature has not been able to confirm the empirical relevance of interactions. Furthermore, some authors do not even think that it is possible to do it at all (Dietz, 2002). This is a strong example of why the immigration literature needs to restore an exchange of ideas with other sociological literature. In this sense, my thesis seeks to find a balanced theoretical anchor in both the sociology of education and the sociological theories of immigration.

Empirically, the thesis tries to develop the existing literature through a basic compromise with the mandates of analytical sociology, in particular with the identification of potential causal mechanisms and clear mediating factors. The majority of the studies on the educational attainment of the immigrant populations follow the widespread practise of comparing the immigrants and natives controlling for some sort of class classification –normally constructed from the head of the household occupation. This takes the assumption that the natives are the meaningful reference group for the immigrant population. Yet, immigration disrupts the usual categories of reference. It is unclear if the standard practise ignores the position of the immigrant household relative to a consequential reference group. If migrants are positively selected

as the immigration literature suggests (Chiswick, 1998), migrants from relatively high social positions in their country of origin, could end up in low socio-economic ranks once in their destination. As a consequence, those that reach an average position in their host societies can well be more comparable to their country of origin's elites than to the average native. Following this logic, immigrants from a given socio-economic extraction in France could not be perfectly comparable to the natives that match with them using a given class classification. Although these and other concerns from the comparison of immigrant and natives are practically unavoidable, my approach tries to neutralise them focusing on specific mechanisms that are responsible for the well-documented class differentials in education, to limit the distortion imposed by the standard class approach to the immigrant effect in education.

The thesis also updates the conclusions of the French specialised empirical literature exploiting the recently available 1995-2001 *Panel d'Élèves du Sécond Degré* (Panel of Students in Secondary Education), a well-known survey study produced by the Ministry of National Education. French sociology has a long tradition of studying group differentials in educational attainment. More specifically, there is a large sociological literature that studies the educational attainment of the immigrant population and their descendants, though it lacks robustness in its conclusions and, in some cases, a proper theoretical anchor in the wider sociological theory when it comes to test the explanatory power of certain ascriptive variables such as social background, ethnicity and migrant status.

The first sociological studies *measured* rather than *explained* the effect of mediating variables such as parental national background, time of residence in France and class of origin. In the 1960s, a number of French scholars concluded that controlling for class, the immigrant population in France did not present almost any disadvantage in education (Clerc, 1964; Courgeau, 1973). From 1978, the systematic production of large panels of students by the Ministry of National Education (1978, 1980, 1989 and

1995) provided high quality data and large sample sizes to conduct sophisticated empirical analyses on educational differentials, and to study the effect of immigration and ethnicity on educational attainment. Unfortunately the identification of the immigrant population in these surveys has been very complicated, since the panels have traditionally lacked information on the parental country of birth. The French official statistics have normally not classified the population according to ethnicity because the official Republican ideology emphasizes the strict equality of all French citizens.[4] Researchers working with these panel studies identified the immigrant population using alternative measures such as nationality and place of birth, years in elementary school abroad, parental time of residence in France and language spoken at home (Vallet and Caille, 1996). Fortunately, recent survey studies incorporate parental place of birth so as to ease the identification of ethnic groups (Héran, 2002). For the first time, the 1995-2001 Panel of Students in Secondary Education allows the use of the parental country of birth as a means to determine immigration status, which represents a clear-cut criterion.

The exploitation of the 1978 of students in primary school Panel (SIGES, 1984) indicated that there were no significant differences in the school performance of foreigners and natives

---

[4] A law passed in 1985 (*Loi Informatique, fichiers et libertés*) prevented public surveys asking about country of birth. This law sought to fight against discrimination and racism. In 1992, a survey called *Mobilité Géographique et Insertion Sociale* (Geographical Mobility and Social Insertion) conducted by the French demographer Michèle Tribalat altogether with her colleagues Benoît Riandey and Patrick Simon - exploited in Tribalat (1995)- allowed the identification of migrants through the nationality dimension. This created an intense mediatic and academic debate instigated by the demographer Hervé le Bras (1998), who criticised Tribalat for rending evidence about the ethnic stratification of French citizens in the context of increasing levels of xenophobia and a growing popularity of the ultra-nationalist party Front National.

controlling for social class. In fact, this study suggested that the French-born children of immigrants obtained better results than the children of native families notwithstanding differences in the family structures –number of siblings. Mondon (1984; also SEIS, 1980) showed that the percentage of immigrants that reached the first year of secondary schooling on time -without repeating- was smaller than that of natives but also that over time, immigrants experienced more successful educational careers. This noticeable advantage was explained by the higher parental expectations among immigrant families and their concentration in urban areas, where better schools are available.

The exploitation of the 1980 Panel of Students rejected this optimistic conclusion and broke the consensus existing around the advantage of immigrant students and the children of immigrants. For the first time, the data indicated that controlling for class of origin, the immigrant population obtained poorer educational results than natives (Thélot and Vallet, 1994). However, in the 1980s and 1990s, some sociologists could again confirm that immigrants and natives were doing equally well. Duru-Bellat and Mingat (1990) showed that controlling for social class, age and academic performance in 5ème, there were no significant differences in the rate of access to 4ème between immigrants and natives. Boulot and Boyzon-Fradet (1988) also suggested that no differences were detected in the performance of these groups given the same social origin.

Among all these studies, it is necessary to highlight the importance of the research conducted by Vallet and Caille (1996) using the 1989 Panel of Students. This is the most comprehensive, systematic and ambitious quantitative study on the educational attainment of the immigrant population in France. The authors covered several dependent variables such as grades, likelihood of repeating and tracking in upper secondary schooling. This study concluded that class of origin explains why immigrants and

natives differ in their educational achievements, and that the effect of ethnicity is most of the times modest, or non-existent.[5]

My thesis continues this long series of empirical works on the educational attainment of immigrants in secondary schooling in France and updates its conclusions using the most recent French Panel (1995-2001). It owes much to the rigorous perspective adopted by the study conducted by Vallet and Caille (1996) but offers more reliable conclusions given that the 1995 panel allows a more straightforward identification of immigrants and ethnic minorities through the parental country of birth.

1.2. The characteristics of France as the case for this study

There are several reasons why France is an appropriate case for this study: the quality of its data, its immigration context and its levels of social fluidity.

To begin with, research on immigration, and especially on the educational attainment of the immigrants, is hindered by the difficulty in finding large datasets to allow inter-group comparisons. France offers high-quality survey studies for sociological research on immigration and education. Specifically, the *Panel d'Elèves du Second Degré* 1995-2001 allows this type of analyses and incorporates a wide range of interesting indicators of educational attainment such as school performance in compulsory schooling and tracking in upper secondary school. A detailed description of this dataset is given in chapter four.

France presents other interesting characteristics for this study. It is one of the longstanding immigration destinations in

---

[5] Disadvantage is far more evident in non-compulsory education. In a study conducted on the obtainment of the general and technologic baccalaureate, the authors revealed a significant disadvantage of the immigrant students. Only 19.4% of the foreigners were successful in the baccalaureate examinations after seven years as opposed to 31.8% of French natives (Vallet and Caille, 1999).

continental Europe (Noiriel, 1988) and occupies a distinguished position in the ranking of countries with a significant migrant stock as defined both by the nationality and the country of birth (see graphs 1.1 and 1.2).

Graph 1.1. Percentage of foreign-born and non-citizens in selected countries (2003)
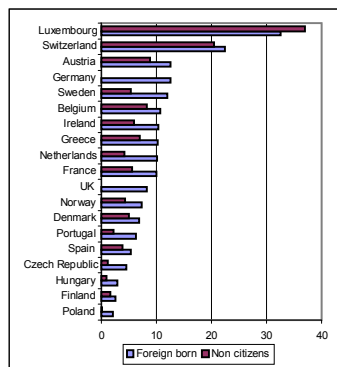
Source: OECDE Dumont and Lemaître, 2004 and CIA World Fact book 2003.

Graph 1.2. Largest immigration groups in France (19901999)
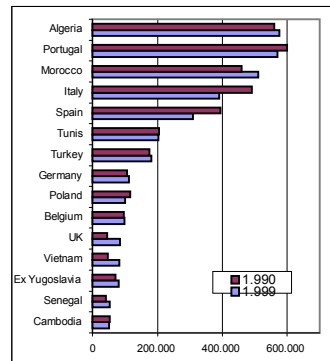
Source: 1999 and 1990 Population Census from the INSEE.

In 2003, 10% of the French people were foreign-born (Dumont and Lemaître, 2003: 6).[6] According to census data (see graph 1.2), the largest immigration groups settled in France came from the former French colonies in the North of Africa (especially from Algeria, but also from Morocco and Tunisia) as well as from the neighbouring countries in the South of Europe (mainly from Portugal, but also from Italy and Spain). But all these figures only give a rather limited idea of the importance of the immigration phenomenon in France. Because of its long immigration tradition, France has one of the largest stocks of second generation immigrants in Europe –native-born children of immigrant parents. According to certain estimates, by the end of last century France

[6] In 1999, 5,6% of the population were foreigners (OECD Fact book 2006).

hosted some 13.5 million inhabitants descending from the broad inflows that migrated since the end of the 19th century, which represents between one third and one fifth of the total population living in France (Tribalat, 2004).[7]

Nowadays, France remains an attractive destination for the migration inflows heading to Europe, especially for Black Africans and East Europeans. Accordingly, despite negative net migration rates –per 1000 inhabitants- from 1994 to 1998, the country continues to receive moderate immigration inflows (see graph 1.3).

Graph 1.3. Net migration rates per 1000 inhabitants (1992-2003)
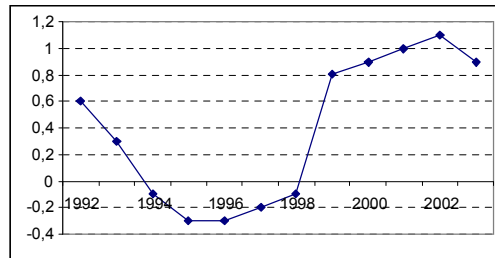
Source: Eurostat Year Book 2005. Europe in figures. Page 74.

French public debates around immigration policies (control and integration) are similar to those held in other European countries. Immigration is not among the foundational myths of European nations as opposed to Australia, Canada, New Zealand or the US. The migrants settled in France share a number of

---

[7] Estimations undertaken using the 1999 *Enquête de l'histoire familiale*. In 1991, 1 out of every 5 births in France is linked to the migration waves that arrived in the previous one hundred years (Tribalat 1991: 257). The percentage of Frenchmen with at least an immigrant father or grandfather was close to 20% (p. 171).

important characteristics with those living in any other Western European country: they are essentially family-driven, long-lasting and ethnically diverse. Despite these commonalities, the selection of France as the case for this study limits to some extent the relevance of the conclusions to the Hexagon (metropolitan France). European nations differ in their official understanding of integration and the role of immigrants in their societies. Ever since the end of the Second World War, the search for a public consensus on how to define the integration of immigrants and their descendants has been one of the most vibrant political and academic debates. France has promoted a so-called *assimilationist* understanding of integration, as opposed to the European countries that favoured a more *communitarian* or *multicultural* approach to integration –Germany, the Netherlands and the United Kingdom- (Brubaker, 1992). The French official view of integration is summarized in the following statement of the *Haute Conséil pour l'Intégration* (High Council for the Integration, a consultative institution in the field of immigration):

> "[…] it aims to promote the active participation of varied and diverse elements in national society, always accepting the subsistence of cultural, social and moral specificities that enrich the whole with its complexity. It will be on the convergence and similarities, not denying the differences, acknowledging them without exaltation, that a policy of integration highlights the equality of rights and duties, [… in order to give] any member of this society the possibility of living in it […] whose rules s/he has already accepted by becoming one of its members […] the integration obeys a logic of equality and not a logic of minorities" (HCI, 1993: 34-5; see also HCI, 2004).[8]

---

[8] In 2005, a number of riots took place in the largest French towns after the death of two Africans in Clichy-sur-Bois. This instigated a public debate about the French model of integration reviving the very French use of echoing the intellectual debates in the Media and then spreading their views to influence wider public opinion. In an interesting opinion article the leading newspaper Le Monde (29th November 2005) said: " […] this Media coverage has revealed to Frenchmen the extent to which the gap between the official version the "French model" and social

For Merton (1995), immigration is a 'strategic research site' in which processes of more general importance are manifested with unusual clarity. France represents a good context to see if mobility also benefits the immigrants' educational opportunities. This country experienced an intense educational expansion (Duru-Bellat and Kieffer, 2000) and its levels of social fluidity have slightly increased over time (Vallet, 1999).[9] In recent decades, the country has passed from being an industrial to a post-industrial society. Significant changes include the increase in the rate of female labour market participation, the increased risk of unemployment for youngsters, the reduction of the agricultural and industrial sectors and the number of manual workers and the increase of the routine non manual, middle and high grade professionals. All this has created increasing room at the top. For Vallet (2004: 19) this together with the consecutive educational reforms that took place from the 1950s onwards created a fairly egalitarian society. These reforms have accentuated the previous egalitarian basis of the French educational system. Even if the internal disorders and the lack of funds prevented the early instauration of successful educational institutions, the revolutionary and Napoleonic French educational system was deeply committed to equality (Barnard, 1958), one of the legal principles that imbricate the Republican ideology since the 1789 Declaration of the Rights of Man and the Citizen.[10] This principle is echoed in the following quote from the deputy for the Department of Paris Nicolas de Condorcet (1743-1794) addressing the National Legislative Assembly in April 1792:

---

reality gives an image of arrogance on the international scene. These events have swept away all justification for any French superiority vis à vis the "Anglo-Saxons".

[9] Yet, Vallet (1999: 60) argues that inequality of opportunities had a significant inertia.

[10] "All men are born free and equal and remain so under the law. The social distinctions cannot be founded but in the general utility" (article 1).

"Our first task should be to distribute education as equally and universally as possible, […] not to restrict access to the highest education possible to every citizen. [… education aims] to offer all individuals of the human race the means to satisfy their needs and ensure their well-being, to know and exercise their rights, to know and fulfil their obligations; to offer everyone the possibility of improving his skills so as to be capable of fulfilling the social responsibilities for which he may be called upon, to develop all potential talent received by nature and to establish equality of condition between citizens and real political equity recognised by the law: these should be the first goals of a national system of instruction; and seen from this perspective, this goal is a duty of justice for the state […] Instruction should be universal […] it should be distributed with all the equality which available resources allow".[11]

In line with this access of all citizens to the same education drove the foundation of the French National School under the mandate of Jules Ferry (1832-1893) in the Third Republic (1875-1940). Similar egalitarian aspirations informed the successive reforms and transformations of the French educational system in the second half of the 20th century and contributed making of France a fluid society. However, increased mobility is not only the result of less inequality of educational opportunities but also the consequence of the weakening in the relative occupational advantage afforded by education, and a compositional effect according to which the educational expansion increased the size and influence of more qualified groups in which the direct effect of origins on destination is socially weaker (Vallet, 2004: 140-7).

---

[11] *Rapport et projet de décret relatifs à l'organisation générale de l'instruction publique*, 21st and 22nd of April, 1792 (source: http://www.assemblee-nationale.fr/histoire/7ed.asp).

1.3. The research strategy: The relationship between social origin, ethnicity and immigration

Why does the educational attainment of immigrants differ from that of natives? *Which processes are responsible for the unequal stratification of educational outcomes between immigrants and natives?* As such, this question could be answered from a plethora of perspectives. Some scholars have argued that the socioeconomic performance of immigrants is mediated by the same factors that originated class differentials.[12] Many of these authors put forward the standard Marxist approach to racial and ethnic inequality. As with sexism and other social conflicts that involve discrimination, Marxists treat racism as a manifestation of class dynamics (see Wolpe, 1986 for a review). For them, race relations are mere manifestations of class hierarchy (Adam and Buhr, 1979).[13] In contrast, other scholars claim that ethnicity continues to be a powerful determinant of individual perspectives that operates independently of other sources of disadvantage (Borjas, 1992a), and so, any explanation of the disadvantage of immigrants or ethnics has to be complemented with the ethnic dimension. In France, Khellil (1991: 15) has argued that the longstanding tradition among French sociologists of studying the relationship between class and ethnicity is the result of the incorporation of the class struggle into the study of ethnicity and immigration by the intellectual left, something linked to a perception of guilt derived from the colonial experience.

---

[12] The American literature on racial differences in social mobility has traditionally explained the effect of ethnicity as the extension of an underclass (Katz, 1993; Jencks and Peterson, 1991). This intellectual tradition was systematized in Wilson's seminal *The Declining Importance of Race* (1978).

[13] Note that not all Marxist scholars support this argument. On the contrary, some have defined class and race as the result of different historical and ideological processes and not only economic ones (Przeworski, 1977; Ben Tovim, *et al.*, 1986).

Following to this debate, this thesis adopts a twofold research strategy (see graph 1.4). The first of them (the social origin approach) hypothesises that socioeconomic deprivation is able to provide a full account of the significant differences between immigrants and natives. The second strategy complements this first approach with the role of ethnicity.

Graph 1.4. Causes of educational stratification for immigrants and natives

		Natives	Immigrants
The social origin	**Class**	*Yes*	**Yes**
The ethnic strategy	**Ethnicity**	No	**Yes/no** ?

The thesis is thus organised in two parts. Firstly, it explores the explanatory potential of social origin-related mediating factors that proxy socioeconomic and cultural deprivation (the social origin strategy; chapters two and five). The implicit hypothesis is that if immigrants and natives differ in their educational achievement it is because of the unequal stratification of these two populations across the class scheme. It is also relevant to see the extent to which class-related mechanisms of educational stratification work equally for immigrants and natives. The most obvious implication is that the effect of ethnicity is negligible. Subsequently, the thesis will approach the explanation of the immigrant effect in education from an ethnic perspective (chapters three and six). If ethnicity counts, then even in the absence of class inequality, people may reach different educational outcomes on the basis of ethnic or racial markers.

The scheme below (graph 1.5) summarizes in detail the logic of these arguments. It is manifest that both immigrants and natives are educationally stratified according to their class status (continuous lines). On the other hand, the extent to which immigrants are also educationally stratified across racial markers or ethnicity is uncertain (discontinuous arrows).

Graph 1.5. The educational stratification of immigrants and natives
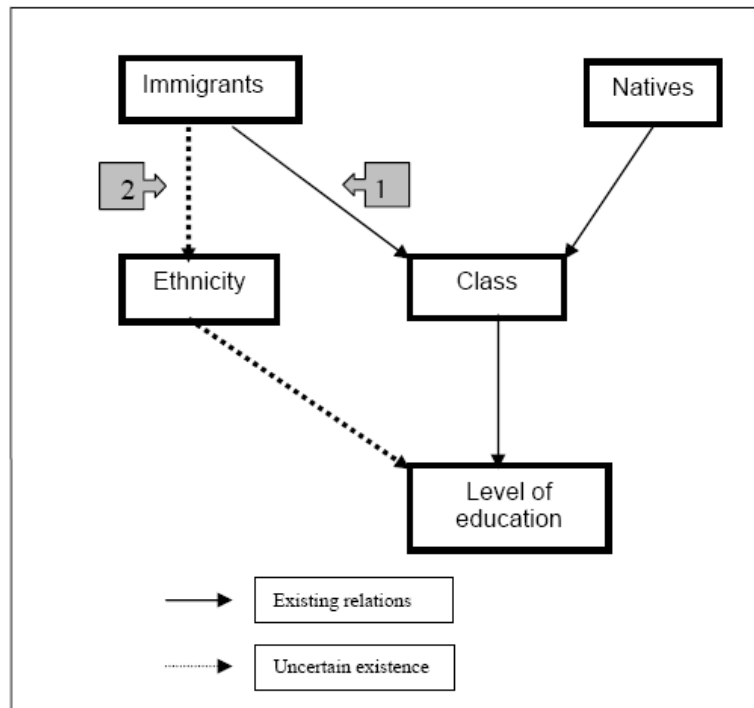
From here, two alternative hypotheses are deduced about the relation between class and ethnicity. The first one represents the scenario where no ethnic-specific explanations are required to

account for the variation that exists in the educational attainment of immigrants and natives. This is what I called the social origin approach:

The second option corresponds to the ethnic strategy where altogether with social origin, a full explanation requires the inclusion of ethnic-specific factors.
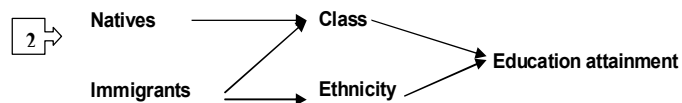
Using the metaphor on regression coefficients we could argue that a social origin strategy hypothesises that $\beta_{class} \neq 0$ & $\beta_{ethnicity} = 0$, and a comprehensive approach implies that $\beta_{ethnicity} \neq 0$.

1.4. Plan of the thesis

The thesis is organised into six chapters plus an introduction and a concluding section that reviews its principal findings and summarizes the results. Chapters two and three review the most prominent theoretical contributions from the sociology of education and the sociological literature on immigration, which theoretically inform the analyses conducted in the empirical chapters.

Chapter two reviews the key sociological explanations given to the existence and persistence of class differentials in educational attainment. It presents an introduction to the debates around the persistence of class differentials in education in the context of the educational expansion witnessed by industrialised societies. Subsequently, the chapter offers a summary of the

explanations that the literature gave to this regularity, including the unequal ability to afford the financial costs of education, and the cultural deprivation (mostly from the cultural capital literature) as well as others related to the existence of different educational expectations –preferences for education and educational ambitions. This literature review will theoretically inform the empirical tests presented in the fifth chapter.

The third chapter summarizes the immigration literature that has researched the relationship between immigration and ethnic disadvantage. Although this literature has been stimulated by the research on the occupational attainment of the immigrant population, the chapter keeps a focus on education. The chapter refers to traditional explanations based on the existence of discrimination and/or different cultural backgrounds associated to the ethnic groups, which shape their preferences for education. In addition, it also reviews newer contributions that go beyond the traditional discrimination/culture dichotomy, expanding the analyses to contextual variables that proxy the effect of social capital (ethnic capital and the modes of incorporation). These references represent the theoretical anchor to the empirical analysis presented in chapter six.

The fourth chapter provides the reader with the basic information to follow the empirical analyses presented in the final three chapters. It first describes the datasets (the 1995 *Panel d'Élèves du Second Degré* and the 1992 *Efforts d'Éducation des Familles*) and presents and justifies the immigration and ethnic categories that are subsequently used throughout the empirical part of the thesis. The final part of this chapter describes the French school system and briefly introduces the reader to the indicators of educational attainment that will be used as dependent variables in the empirical chapters.

The empirical part of the thesis is divided into three chapters. Chapter five approaches the explanation of the immigration effect through the social origin strategy using the theoretical framework reviewed in chapter two. Chapter six adds the ethnic dimension to

the explanation of the immigration disadvantage. Finally, the seventh chapter completes the explanation of the remaining immigration residual exploring the differences in the way immigrant and native parents are involved in their children's education.

The presentation of the empirical analyses respects the chronological sequence of the French secondary schooling. The 1995 Panel of Students allows researchers to conduct a rich study of educational attainment using different elements of the school experience. So as to cover the complete sequence of French compulsory schooling I have organised the analyses in a chronological way:

1. I first look at what happened before secondary schooling (number of years in preschool education and in elementary schooling, as well as selection to special education in lower secondary school).

2. After that, I explore differences in school performance looking at the grades obtained in mathematics and French by the children of immigrant and French-born families at the beginning of lower secondary schooling (1995).

3. Following that, a dynamic analysis looks at the possible differences in the rhythm of progress of each type of students. To do so I again use measures of school performance (mathematics and French) at two moments of time (1995 and 1998).

4. Once the study of school performance over time is completed, I look at differences in the tracking of students in upper secondary schooling, differentiating between the academic track and the vocational ones. This section includes a complete analysis of so-called *orientation*, the selective process that determines further school careers.

Bear in mind that the aim of the thesis is to explain the immigration effect, understood as immigrants' disadvantage in attainment compared to the natives' level of educational success. Using a social origin approach, chapter five is able to account for the significant differences existing in the performance of the

children of immigrant and native families in the indicators listed in points 1 (pre-secondary education), 3 (rhythm of progress in lower secondary) and 4 (track chosen in upper secondary). This is why the sixth and seventh chapters only focus on the gap in the grades in mathematics and French (nonetheless the appendix includes estimates from alternative model specifications to reassure the reader that no ethnic residuals are significant for the rest of the dependent variables).

The empirical analysis offers basically the same conclusions drawn from significant previous French (Vallet and Caille, 1996) and international research (Heath and Brinbaum, 2007; Kao and Thompson, 2003). Immigrant students are not significantly disadvantaged before secondary school in comparison to their French counterparts from the same social origin. In any case they do begin lower secondary schooling with significantly worse scores in mathematics and French language. The gap in grades between the children of immigrant and native families is visibly reduced throughout lower secondary education. This is not explained by their well-documented ambition or their positive self-selection, but rather by the fact that it is easier to progress when the point of departure is a low rather than a high grade. With respect to the selection of further school careers, students from immigrant and native households are equally likely to be chosen for the academic or the vocational track once we control for their school performance.

Also, in accordance with the conclusions drawn from the most recent French and international research on immigration and educational attainment, the thesis concludes that ethnicity does not represent a significant source of disadvantage. On the contrary, in some cases it has a positive effect on attainment. Most of the significant ethnic residual in attainment is absorbed by the immigration status, especially if we consider the distinction between children coming from mixed or exclusively immigrant parents.

CHAPTER 2. THE SOCIOLOGY OF EDUCATION

This chapter reviews the most pertinent theoretical arguments for a social origin approach to the explanation of the immigrant effect in educational attainment. Such an approach assumes that immigrants and natives are educationally stratified according to social origin-related mechanisms

Graph 2.1. A social origin approach to the explanation of immigrant effects
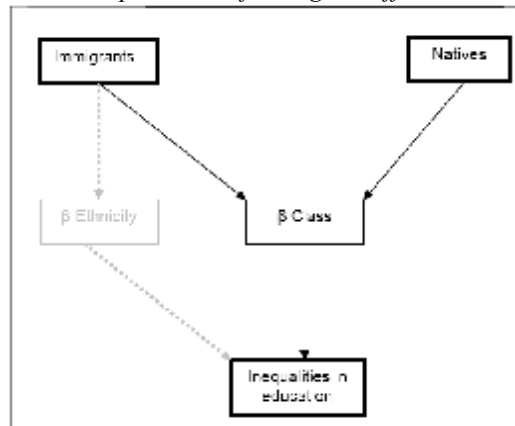
As a logical consequence, βclass ≠ 0 and βethnicity = 0, so ethnicity, which will be the object of the next chapter, has no relevance in this analytical approach.

2.1. Introduction: The persistence of class differentials in educational attainment

The educational expansion witnessed by all the advanced democracies after World War II raised the average levels of education attained across classes, but it did not neutralise class differentials in educational attainment (Shavit and Blossfeld, 1993). Sociologists have devoted a large amount of effort to explain the striking stability of this occurrence that contradicted the basic postulates of functionalist sociology.

In the 1960s and 1970s, functionalist sociologists predicted the end of class as an ascriptive source of inequality (Blau and Duncan, 1967; Featherman and Hauser, 1978; Lipset and Bendix, 1959; Svalastoga, 1965). The analytical implication of this prediction is what Goldthorpe (2000: 162) has called a general theory of the decline of class. Functionalists believed that post-industrial societies were not static and that social mobility was at their very heart. Its liberal implications meant that there was no need to force the rhythm of social mobility because it was inherent in social and economic development. Liberal functionalists believed that international competition between nations was the catalyst of many educational reforms in the post-War western world seeking the best use of their human resources. Efficiency required that meritocracy replace ascription as the leit motiv of the educational systems. Because of growing social complexity derived from the division of labour in industrial and post-industrial

societies, achievement and individual merit were supposed to substitute ascription as the stratification criterion.[1]

Initially, the empirical research on social mobility confirmed these suspicions. However, in the 1980s a number of works rejected the idea that a sustained economic development meritocracy was to take over ascription (Mare, 1981; Garnier and Raffalovitch, 1984; Dronkers, 1983; Halsey *et al.*, 1980; Heath *et al.*, 1992; Breen and Goldthorpe, 2001). Mare (1981) suggested that previous models of linear probability could not distinguish between the overall distribution of educational attainment and the differences within groups. He proposed modelling each educational transition separately, so as to determine the probability of proceeding towards the following step conditionally on having reached the previous one. Categorical dependent variable models such as binary logistic regression also permit the measurement of the changing effect of background variables at each level.[2]

Mare's model of step-like decision making had been considered the standard approach in the study of educational inequalities until Cameron and Heckman (1998) criticised its behavioural assumption of myopia. Individuals calculate costs, benefits and probabilities of success at each stage. For these authors, individuals may choose ex ante their preferred level of education. For them, Mare's model ignores the unobserved heterogeneity in terms of ability. Rather than a binary logit, they

---

[1] This is an important characteristic of Bell's (1976) post-industrial society. Only the best use of the national stock of human capital ensures competitiveness (Kerr *et al.*, 1960; Parsons, 1960). To avoid the loss of talent, mobility had to depend on merit and not on ascription (Davis and Moore, 1945). This *increased merit selection* requires a decreasing impact of class origins on educational attainment, increasing effect of educational attainment on class destinations, and a weaker association between class of origin and destination (Jonsson, 1992).

[2] Some have noted the decreasing importance of social origin in the upper branching points of the educational system (Mare, 1980; Shavit and Blossfeld, 1993). This was rejected by Cameron and Heckman (1998).

proposed to use an ordered logistic model, which works with fewer parametric restrictions. The use of binary logistic regressions has also been criticised by Breen and Jonsson (2000) for not modelling the variety of tracks available in contemporary school systems as opposed to the traditional study of the stay-leave dichotomy, something that can be done through multinomial logistic regressions.

Beyond these criticisms, Mare's model represented an important development in the literature. It provided the methodological anchor for the seminal compilation of studies edited by Shavit and Blossfeld (1993), which confirmed that educational expansion did not actually neutralise class inequalities in educational attainment as predicted by the modernization hypothesis. This comparative study of thirteen countries that experienced similar processes of educational expansion, explored the impact of socioeconomic origin -as measured by father's education and occupation- on the length of schooling –using OLS regression analyses- and the probability of going through a number of educational transitions –using logistic regressions. In the majority of the countries, class differentials in education only decreased in the first stages of the educational career -primary and secondary- but definitely not in access to university.[3] Stability in the association between social origin and educational attainment was confirmed in eleven countries, with the Netherlands and Sweden being the only exceptions. In these two cases, the association between origins and destinations weakened because of the coincidence of the educational expansion with a broad equalization of the means of living (De Graaf and Ganzeboon, 1993; Jonsson, 1993). This was also the conclusion of a

---

[3] In Germany, Israel, Poland and Switzerland, this happened through the distinction between academic and vocational education after secondary without entering university.

comprehensive study of the Swedish exception published by Erikson and Jonsson (1996).[4]

More recently, international comparisons on the impact of parental education over individual educational attainment question the stability of the association between social origins and educational attainment (Breen *et al*., 2005):

> "The sociological evidence suggests that there has been a relatively high degree of temporal stability in the association between class of origin and educational attainment in modern industrial societies (although where change has occurred it has generally been in the direction of weakening association)" (Eriksson *et al*., 2005: 9730).

2.2. Explanations of class differentials in educational attainment

The above debate impelled sociologists of education to explain the persistence of class differentials in educational attainment. As a consequence, liberal and Marxist sociologists have comprehensively rethought class theory, giving a variety of explanations as to this empirical regularity.[5] Marshall *et al*. (1997: 133-158) summarized these explanations in a non-exhaustive list that includes the existence of inherent inequalities on intelligence, material disadvantage, cultural deprivation, different tastes for education and ambition. In this review, I shall follow a similar

---

[4] This happened in combination with certain reforms of the educational system. During the 1950s and the 1960s, a comprehensive reform homogenised primary education and expanded secondary and tertiary education.

[5] While Marxist class theory focuses on the creation and reproduction of class inequalities, liberal class theory accepts capitalism as a mean to maintain political stability. Liberals thought that the process of educational expansion and increasing social mobility were the root of class decomposition (a review in Goldthorpe, 2000: chapter 8).

scheme.[6] Explanations based on the existence of cultural deprivation -cultural capital-; those linked to the existence of material disadvantage -the direct costs of education-; the existence of different preferences for education across groups; and, finally, those relating educational outcomes to the educational ambitions and the distance between social origins and destinations. Of course this classification is a vast simplification of the analytical complexity deployed in this literature. It does not mean that each block ignores the existence of other sources of inequality. Yet, it stresses the main mechanism identified as being responsible for class differentials in education.

These are the broad mediating factors explaining the correlation between class of origin and education, and theoretically anchor the empirical analysis of the significant immigrant effects presented in chapter five. The French 1995 Panel of Students includes acceptable proxies for most of these arguments, including parental education and the consumption of highbrow activities as proxies of cultural capital, the share of the household income available for education, and a mixed proxy of educational expectations (perceptions about the utility of each diploma to find a job). Further details about the empirical operationalizations of these concepts will be given in chapter five.

---

[6] I shall exclude from this review any reference to IQ inequalities. The *IQ debate* originated in the 1970s (Hauser, 1993: 271; Gould, 1981), when increasing signs of frustration and despair about the educational performance of ethnic minorities in the US –especially among Blacks. The basic argument is that class inequalities are natural whenever the population is sorted across classes according to certain natural factors such as intelligence. For Herrstein and Murray (1994), intelligence is the major determinant of poverty, schooling, unemployment, parenting, welfare dependency, crime and civility, so inequality is the natural consequence of intelligence in the free-market. This argument has received overwhelming criticisms (Fisher *et al.*, 1996) and is now frequently ignored by sociologists and psychologists.

Graph 2.2. Explanations to social inequalities in education
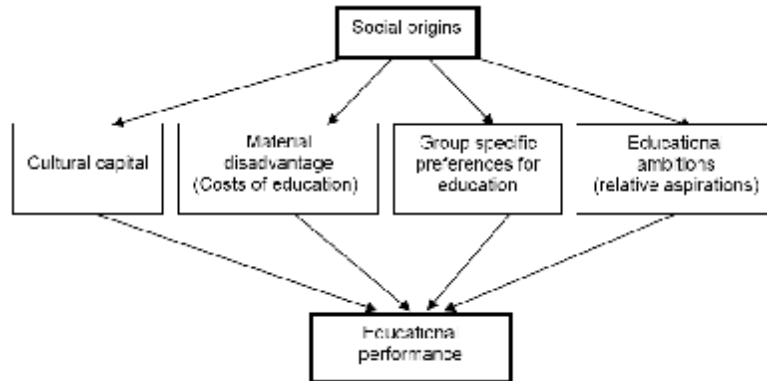
2.2.1. Cultural inequalities: The concept of cultural capital

Pierre Bourdieu is one of the best-known French sociologists and his work has been widely echoed in the Anglo-Saxon sociology of education for his contribution to the explanation of class differentials in education through cultural inequalities. His work was influenced by the Weberian view of status groups – individuals are bound together by personal ties and a common sense of honour based upon and reinforced by shared conventions (Di Maggio, 1982: 189). But at the same time, Bourdieu's theorising is deeply rooted in a traditional Marxist understanding of social confrontation framed by the capitalist mode of production. Individuals own different types of capital –financial, social and cultural– in different amounts, and this determines their social position. Bourdieu's foremost contribution is the view of culture and the means of cultural production as an economic asset that individuals exploit in the struggle for social and economic resources. In this respect, cultural capital is an instrument for the appropriation of symbolic wealth, socially designated as worthy of being sought and possessed (Bourdieu, 1977).

Bourdieu argues that the distribution of cultural capital is uneven across groups because of the class habitus. This is a

disposition that generates practice in accordance with the structural principles of the social world (Nash, 1990). It is what mediates the amount(s) of individual capital(s) and his or her degree of poverty, social exclusion, disadvantage, etc. The habitus is acquired throughout socialization, since it produces a set of predispositions and ideas about kinship, convenience and inconvenience shared by comparable individuals. But families are not the only agent that shapes this process. Bourdieu (1974) describes the school as a 'conservative force' because the national curriculum biases schooling in favour of the middle and high classes' cultural capital and their habitus. This explains the relative advantage of groups equipped with an adequate amount of cultural capital and the type of habitus that prevails in the school system (Bourdieu and Passeron, 1977). This gives an active role to the school in the reproduction of social inequalities. Schools like other social institutions controlled by the upper classes, privilege medium and high class students. So as to preserve their privileges, the latter groups ignore the specific needs of the working class students that behave in accordance with their working class habitus and thus, fail. In conclusion, Bourdieu differentiates between class cognitive structures and other sources of disadvantage such as incompetence or lack of interest. Thus, he does not assume that working class families disregard the education of their children, but simply that their habitus blocks their educational prospects.

Bourdieu's obscurity has resulted in as many interpretations of cultural capital as researchers have dealt with this concept. For instance, Nash (1990) defines it as a particular disposition of the mind and the body, objectified as cultural goods and its institutionalised state -educational qualifications-, while Sullivan (2000) says that it is the familiarity with the dominant culture in a particular society through the control of its linguistic register. These divergences explain why the empirical literature has engaged in a long debate about how to operationalize this vague concept. In many of his works, Bourdieu assumed that cultural

capital and parental education were strongly correlated (Bourdieu and Boltanski 1981) and this practise has been echoed in some empirical works (Halsey *et al.*, 1980). However, Di Maggio (1982) found a strikingly low correlation between parental cultural capital and higher education using a composite measure of cultural capital based on cultural knowledge -including activities, interests and the knowledge of art, music and literature. Similarly, De Graaf (1986) used information about parental participation in highbrow activities per month such as visits to libraries, museums and theatres and weekly hours of so-called 'serious' reading. Sullivan (2001) made the most comprehensive effort of operationalization including the practises of significant previous studies and others like TV consumption, a test on cultural background and language skills.

Even though the conclusions of the empirical literature are somewhat contradictory, the findings of a selected list of works give some credibility to the concept of cultural capital (Di Maggio, 1992; De Graaf, 1986 and 2000; Driessen *et al.*, 1999; Sullivan, 2001). Yet, Bourdieu is unable to explain individual behaviour outside the group and why individuals differ in their level of attainment controlling for differences in their socialization processes. His explanation is deterministic as no matter what happens after the socialization, the chances of succeeding are already constrained by the habitus, which, as a function of social class, determines educational aspirations. Another criticism of Bourdieu's theory of cultural reproduction goes against the view of schools as being biased in favour of middle class children since it implies that teachers are active actors in the maintenance of this bias and that they are part of the ruling class, something that is rather unrealistic. Moreover, Sullivan (2001) did not find any prejudice among secondary education teachers against working class children. Goldthorpe (2000) has said that if the higher classes force the schools to work in a conservative way, it is difficult to explain why the majority of those who had access to higher education in the post-war period came from uneducated parental

couples and also why the educational expansion concluded with a rise of the average level of education attained.

The concept of cultural capital has been scarcely applied in the literature on ethnic inequalities in education both in the US and Europe (Roscigno and Ainsworth-Darnell, 1999: 160) as opposed to the excessive reference to social capital (Geert and Driessen, 2001: 517). In a short, but elegant and rigorous qualitative work, MacLeod (1995) argues that ethnicity can be understood as one of the multiple structural constraints to social mobility. This author sees ethnicity as a mediator through which class constraints are refracted by different social groups, since it shapes the habitus just as much as class and socioeconomic deprivation. For other authors, the concept of cultural capital itself is culturally biased in favour of the natives' tastes and dislikes. In this same line, Geert and Driessen (2001: 516) explored the unequal distribution of financial and cultural capital across students from Dutch, Antillean, Moroccan and Surinamese origin. Their results indicate that the unequal distribution of cultural resources does not have a significant impact on the individual scores in mathematics and language tests. The authors suggest that defining cultural capital as the consumption of highbrow activities could only be meaningful if the minority culture is not very different to the majority's, since the pertinence of the consumption of highbrow activities as a proxy for cultural capital could depend on the cultural distance that separates the groups. On the other hand, Kalmijn and Kraaykamp (1996) have showed that cultural capital is a resource that boosts the chances of social mobility among Whites, Blacks and Hispanics. The authors relate the general increase in the consumption of cultural Euro-American activities -especially among the Blacks- with higher educational attainment. In their view, the growing exposure of Blacks to these activities is partially responsible for their convergence in schooling with Whites. Recently, Van der Werfhost and Tubergen (2007) also suggest a positive impact of certain relevant measures of parental

cultural capital over educational attainment in their study of second generation immigrants in the Netherlands.

2.2.2. Material disadvantage: The monetary cost of education

It is evident that less affluent families have fewer resources to afford both the direct and the indirect costs of education, and this could constrain their offspring's attainment. For some, this sort of arguments has lost importance in recent times because the successive education reforms in advanced societies during the second half of the 20th century eliminated part of the monetary cost of formal education through the reduction of school fees and raised the threshold of compulsory education to secondary level.

The efficacy of the reduction of tuition fees as a mean to fight class inequalities in education has been much disputed. In the United Kingdom (UK), Halsey (1977) found a weakening effect of social origins in educational attainment after the introduction of the 1944 Education Reform Act that eliminated tuition fees in secondary education. Years after, he and his colleagues (Halsey *et al.*, 1980; also in Heath *et al.*, 1992) concluded that the impact of social origin in access to education remained pretty much unchanged even though the process of educational expansion increased the amount of education accumulated across social segments. Why did the elimination of school fees not have the expected equalizing effect? The disappearance of tuition fees did not mean a huge change since in many cases –like in the UK– the local authorities had already lowered the school fees. Beyond this debate, there are prominent theories that continue to highlight the importance of the household financial resources to explain educational attainment.

Raftery and Hout (1993) studied the association between social origins and educational outcomes for a number of cohorts born between 1908 and 1956 in the Republic of Ireland. They not only confirmed that class differentials in educational attainment did not disappear, but also that they became less consequential

because the educational system expanded to the point where it could afford to be less selective –the 'Maximally Maintained Inequality' hypothesis. Their evidence shows that class inequalities are more pronounced among the older rather than the recent cohorts because of the democratization of access to secondary schooling. For them, the growing distribution of secondary schooling happened for two reasons: the demographic boom and the social origins upgrading. Whenever enrolment grew at a greater rate than the demand for it, the lower classes had access to more education. Given that the completion of lower secondary schooling became a universal possibility, the effect of social origins on the transition from primary to secondary education declined. However, the selectivity of the educational system did not disappear so the association between origins and educational success remained stable. These authors argue that the democratization of secondary education did not result from a higher commitment with meritocracy, but from the fact that the transition to secondary schooling was less selective than in the past. In France, Duru-Bellat and Kieffer (2000) have argued that despite educational expansion, access to upper secondary education and baccalaureate remains less open to certain groups.[7]

Lucas (2001) suggests that class differentials remain significant even before access to secondary education. While the 'Maximally Maintained Inequality' hypothesis indicates that the effect of social origin disappears when a certain level of education is universal, the 'Effectively Maintained Inequality' hypothesis suggests that social origin early places students in different situations. Although secondary education is universal, it is not a space free of competition. Whenever a certain level of education is universal, the class conflict is reflected in the following step. Wealthier families provide better resources such as better schools,

---

[7] Research on the democratization of access to the school system has been very prolific in France –a review in the special issue of *Population* (2000-vol.1) and Merle (2002).

extra curricular activities, and equip their offspring to face the competition. Accordingly, the fifth chapter will present an analysis seeking to reveal differences in the willingness of immigrant and native families to spend money on their offspring's' education. As such, Lucas' argument emphasizes the importance of financial resources on the length of schooling and the likelihood of succeeding at each level and on the tracking of students.

In France, Merle (2002) has argued that the standard approach to the study of the democratization of secondary schooling that focuses on the traditional stay-dropout option, yields excessively optimistic conclusions. Instead he proposes to look at the tracking of students at the end of 3ème and their sorting in 2nde across academic and vocational options (see chapter four for a description of the French school system), where social origin differentials remain visible. Accordingly, the empirical analysis presented in chapter five looks at the tracking in upper secondary schooling (*lycée général et technologique* versus the *lycée proffesionel*).

Bear in mind that some authors consider that material disadvantage has a particularly negative impact for immigrant and native families. In the United States, immigrants and ethnic minorities seem to be more responsive to changes in the direct cost of higher education and to the existence of means tested financial aid (Jaynes and Williams, 1989: 345). Morgan (1998) has shown that Black Americans are more likely to over-adjust their educational plans to resource-availability than whites. In his study of the transition to upper education of blacks and whites aged 18 to 19 years from 1973 to 1988, Kane (1994) suggested that until 1984 the shrinking number of blacks enrolled in secondary education was related to the direct costs of education. This reveals a higher responsiveness of the blacks to the monetary cost of secondary education. Hauser (1993) drew similar conclusions from his study of the college attendance of Black Americans. He suggested that the growing access of Blacks to upper education in the mid 1970s was due to the existence of generous publicly

funded programs.[8] This trend changed years after with the end of these programs coinciding with an increase in the tuition fees from 1975 to 1984. In Hauser's words (1993: 305) although blacks and whites faced identical growth in the cost of schooling and stagnant real incomes, "[…] the needs of the African American youth are different […] they need a mix of aid types and marketing [to promote schooling]". Because of data constraints, the thesis will not be able to look at these arguments in detail. Yet, an interaction between the immigration categories and household income could confirm whether the impact of financial constraints is stronger for immigrants than for natives.[9]

2.2.2.1. Public versus private schools

There is a considerable literature that discusses the impact of school effects on educational attainment. Although the academic tradition of studying school effectiveness is mostly Anglo-Saxon, school effects are known to be important determinants of school outcomes in France, although smaller than in other European countries (Duru-Bellat, 2001). Duru-Bellat (2002) has suggested that above 28% of the probability of proceeding towards upper secondary education is explained by school effects. The school

---

[8] In the US, the fees decreased in the first 1970s coinciding with the Pell Grant Program, a federal means-tested grant program for secondary and post-secondary education.

[9] Comparing the effect of income on educational attainment between immigrant groups and natives assumes that similar levels of income represent equal constraints for natives and ethnics. Nonetheless, the thresholds to evaluate one's financial situation could be group-specific, as individuals across groups can use different reference points (Modood, 1993; Berthoud, 1998; Portes 2001). Measurements such as household income per capita cannot reflect the specific circumstances of immigrant families - remittances, funding family reunification-, or relational factors such as group resources in the host country.

characteristics are able to explain some 10% of the variation in grades (and school progress) and future educational careers. Furthermore, she has also revealed that the teacher-effect is able to account for some 10-15% of the variation in the rhythm of school progress. Unfortunately, the datasets used in the empirical part of the thesis do not include a detailed list of school characteristics used in this literature. It actually only includes one of them: the distinction between public and private-owned schools.

Sociologists of education have extensively discussed the extent to which the school performance of students enrolled in public and private schools differs. In the UK, where this literature has a long tradition, Halsey *et al.* (1980) concluded that private schools were doing slightly better than public ones.[10] But the authors also argued that the differences between schools turned out to be the consequence of the different social composition of the student-body, since controlling for social origin, differentials in the propensity to stay after O-level were rather small (pp.211-212). Smith and Tomlinson (1989) suggested that there was a lot of variation in the performance and the evolution of attainment across urban comprehensive schools. They recognised the existence of school effects especially for above rather than for below average students. They also said that the individual progress made throughout secondary schooling was uneven in different subjects, and that most of this variation had to do with the departmental level within schools rather than with school quality. The authors also concluded that parental views about the school and their satisfaction with the establishment are only moderately related to attainment; more complaints do not necessarily mean an improvement in attainment (1989: 303).

In the UK, Sullivan and Heath (2002) could not confirm an advantage of private school students compared to those enrolled in

---

[10] Until 1965, the British school system was very competitive. Students at age 11 were tracked in grammar (oriented towards university), technical (vocational) and secondary modern schools (seeking a rapid entrance into the labour market).

state comprehensive schools. In their models there are evident statistical differences in test scores in English and Mathematics at age 16 -although in any case the best predictor are the tests at age 11-, but these differences are not significant when O levels are the dependent variable. Differences between private –independent and direct grant– and state schools –comprehensive, grammar and secondary modern–, were confirmed with respect to:

- Intakes: the student-body enrolled in private schools comes from more affluent social backgrounds and families with more cultural capital (measured through education and reading behaviour) that stimulate their children's school success
- and resources (as measured by the ratio between the number of students and teachers).

Sullivan and Heath rejected the existence of denser networks and more parental social capital in private schools (Coleman *et al.*, 1982).[11] They also show that the student-teacher ratio that proxies school resources, and the rate of teacher turnover that proxies the quality of teachers do not have a significant impact on the test scores or the O level examination. Interestingly their results suggest the statistical importance of the social origin composition of the school, which they interpret as peer-pressures.

In a comparative study of nineteen OECD countries – including France-, Dronkers and Robert (2003) conclude that private-government dependent schools are the most successful sort of establishments controlling for individual and family

---

[11] Surprisingly there were no differences in the likelihood of contacts between parents and teachers, or in the existence of parents-teachers associations. Coleman *et al.* (1982) argued that catholic private schools own more intergenerational social capital because of frequent contacts between teachers, parents and students and that, this enhances dedication and discipline.

background characteristics as well as for the school composition.[12] This is applicable to all the countries, irrespective of the size of the private school sector. Differences in school-effectiveness are not only due to diverging learning and teaching conditions but also to a better school climate. By school climate they refer to a combination of factors such as teachers' expectations towards the student, teacher turnover, strictness, teacher and student absenteeism student respect for teachers and alcohol or drugs consumption, intimidation of other students, etc.

There is little consistency in what different authors understand by school quality. While Smith and Tomlinson find a significant relation between broad school CV design and range of extra-curricular activities, Sullivan and Heath measure it through the student-teacher ratio and teacher turnover. However both coincide in using other variables such as parental involvement in their children's education. Dronkers and Robert establish a wider definition and a broader operationalization of school quality – conditions of teaching and learning, school administration, school climate and core curriculum. Finally it must be said that, although neither the literature in the US, nor in the UK, agreed on the real empirical importance of the so-called schools-effects, their hypothetical existence would produce a similar effect for natives and for ethnic minorities (Smith and Tomlinson, 1989: 307).

As explained in the fifth chapter, the distinction between private and public schools in France could be irrelevant since the private sector is rather small and primarily linked to religious education. Thus, the public sector has managed to retain prestige. In any case, the empirical analysis will consider the pertinence of this variable.

---

[12] In their work the authors differentiated between public owned and funded schools, private but public funded schools and private owned and funded schools.

2.2.3. Educational expectations

A review of the literature that explores the impact of educational expectations on attainment should distinguish between preferences for education and educational ambitions. For certain authors, group differentials in educational attainment are explained by the existence of group-specific tastes for education (see references below). On the other hand, others think that all individuals prefer more good than evil irrespectively of their social origin, and thus reject the definition of preferences as a function of social groups. For this latter group of authors, what causes differences across groups is the amount of educational ambition required to cover the social distance between origins and a desired level of education (destination).

Although the conceptual and analytical distinction between preferences and ambitions is evident, disentangling their empirical effect on attainment is rather complicated (Kao and Thompson, 2003: 422-3). The datasets used in the empirical analysis presented in chapter five do not to allow us to distinguish tastes from ambitions. However it includes a combined measure of both that will model the broader impact of expectations on attainment: the parents' perceived utility of each diploma to find a job. In spite of this limitation, the centrality of the conceptual distinction in the theoretical literature between preferences and ambitions suggests the need to review both arguments in detail.

2.2.3.1. Different tastes for education

Since the 1950s a considerable literature has developed the idea of the existence of group-specific hampering ideas about

education and expectations about success.[13] These arguments prepared the ground for the concept of the 'culture of poverty' (Lewis, 1972), which depicts working class people as embedded in subcultures with a preference for manual works, unwillingness to make sacrifices and rejection of authority. The concentration of inequality and poverty spread these norms and values and as a consequence individuals imitate the choices made by their peers. Thus, individuals do not decide, or they only do so to a limited extent. In fact, they select their courses of action according to some inner mechanism that is not consciously perceived, be it through the internalization of social norms, over-adjustment to existing constraints or imitation of traditional behaviour.[14] This argument risks however producing circular and static explanation where culture remains pretty much unchanged.

As early as the 1950s, Hyman (1953) argued that the low levels of socioeconomic mobility in American society were due to differences in the systems of beliefs and values: some groups put less emphasis on success and are hugely aware of the lack of opportunities. For Hyman (1953: 427), a low class individual " […] does not want as much success, knows he couldn't get it even if he wanted to, and doesn't want what might help him get success".

Similarly, Pearlin's (1971) study of parental values in Turin founds that middle class families put greater emphasis on the child's self-direction, while working class families do it on the children's conformity to the external prescription of the reference group. The argument is that parents use their own experience to prepare their children for what is their likely occupational future

---

[13] McClelland (1961) suggests that social and economic progress is rooted in specific value systems that promote achievement and reward effort.

[14] From a normative point of view, the commonest criticism against these arguments is that "[…] every time that outside observers show that someone else's behaviour follows from causes that are unknown to the person, they assume at the same time that that their view is superior to that of the person observed" (Gambetta, 1987: 13).

and they inculcate views that decrease their ambition. Pearlin argues that these differences push middle class children towards self-employment, while working class children find this unattractive. Pearlin also warns against inferring the existence of equal expectations to all groups because they are fostered by the family socioeconomic background and their past experiences.

Willis' Learning to Labour (1977) is perhaps the best-known representative of this literature. The author argues that schooling is not an option under the prism of working class children, who are embedded of antiauthority values and a preference for manual work. This cultural construct spreads the idea that academic work is effeminate while manual work is masculine. Working class kids learn to more greatly value intimidation, masculinity and contact with their peers rather than the value of effort and they think that the skills provided by schools will not provide the kind of resources that will solve their problems. Students from a middle class origin are embedded in the opposite set of values, which enables them to reach higher education. The common perception among working class children is that any job they can get is bad, so there is no reason to delay the moment of joining the work force and earn some money. In consequence, these different perceptions lead to unequal school outcomes across social groups, the causal link being the moral authority of the group-norm. One criticism of this argument is that it allows no room for change since it views poverty or exclusion as self-reinforcing processes whose eradication is impossible.

Some authors have adopted similar positions from a rational choice perspective. This means that the definition and justification of preferences -the most complicated element of rational choice behavioural models- are exogenous. However, over-simplifying the presentation of these arguments is unfair as it detracts from their sophistication and complexity.

Many rational choice theorists overcame the economic assumption that individuals in a self-regulating market are exclusively motivated by the maximization of their individual

utility and economic efficiency. Murphy (1981 and 1990) is the best representative of this literature. He sees no link between deprivation or social class discrimination and the under-representation of lower classes in higher education since the direct costs of education almost disappeared with the reduction of school fees to symbolic levels. Murphy also criticises the Coleman Report (1966) for linking the under-representation of certain ethnic minorities and working class students in higher education to discrimination since it is difficult to believe that the system has been unable to neutralise to date.[15] The failure of the educational reforms proves that the cause of the inequality has to do with unequal tastes for education.[16] In this way, his argument is connected with the literature on group-specific sub-cultures in saying that working class students are indifferent and over-adapted to poverty. He criticises the sociological research that blurs class inequalities in education and class disparities, which are not due to inequality of opportunities but to different tastes for education across groups.

Gambetta's seminal *Were they pushed or did they jump?* (1987) addressed the question of whether individuals really select their educational careers in advance. Gambetta uses data extracted from two surveys from the North West of Italy to ask whether people are able to choose –pull factors- or if they just follow inertial forces beyond their control –push ones. The push factors include a number of cultural and normative explanations that differentiate tastes for education across groups. The pull factors refer to inter-temporal calculations. The combination of inertial

---

[15] The Coleman Report (1966) evaluated the performance and opportunities of ethnic minority students with respect to the natives. One of the most striking conclusions was that the students' academic outcomes were poorer when in classes with a non-white majority. This encouraged the idea that schools be integrated in order to have a racial class mix of students (Brown, 2000).

[16] Murphy (1990) saw other measures that neutralised discrimination such as the end of the '11-plus' test that tracked students at age 11 on the basis of intellectual ability and also cultural background.

mechanisms such as culture and social norms that involve no looking ahead, and inter-temporal calculations that require anticipatory behaviour, places Gambetta's work in between the supporters of the constant preferences and those who claim that preferences are group-specific.

The amount of formal education is a function of what the individuals can do, what they want to do and other conditions that shape their preferences (Gambetta, 1987: 169). 'What they can do' is given by the educational institutions and family cultural and budget constraints. 'What they want to do' is given by life plans affected by the labour market prospects, wages, and the subjective perception of the probabilities of success as measured by past school achievements.

The individuals that Gambetta describes are able to make their own educational decisions and do not behave mechanically. However, working class people are more responsive than middle and high classes to the subjective perception of ability and to labour market prospects. To explain this, he uses an elegant non-formal rational choice model, which incorporates supra-intentional causal elements: tastes for education are not evenly distributed across classes. Drawing an imaginary axis in which the extremes represent the proneness to leave or stay at school at the minimum and maximum, the individuals in the centre of this axis are more likely to make cost and benefit calculations regarding their educational options. On the other hand, those in the extremes are not, and either they share a positive or a negative inclination to education.

The extent to which working class children are more responsive to financial difficulties and their perceived probability of success is explained by Boudon's (1974) theory of class inequalities in education through what he calls secondary effects or the incentives that each option represents depending on the individual social origin. But Gambetta refers to the existence of an unconscious process of adjustment to social inequalities that produces an excessive conservatism among working class

individuals when they evaluate the risks that are inherent to each alternative. This is what Gambetta calls inertial factors, which homogenize tastes through mechanisms such as risk aversion, over-adaptation a particular value attached to schooling per se, as well as the role of pre-established social norms.[17]

Graph 2.3. Distribution of preferences for education (Gambetta, 1987)
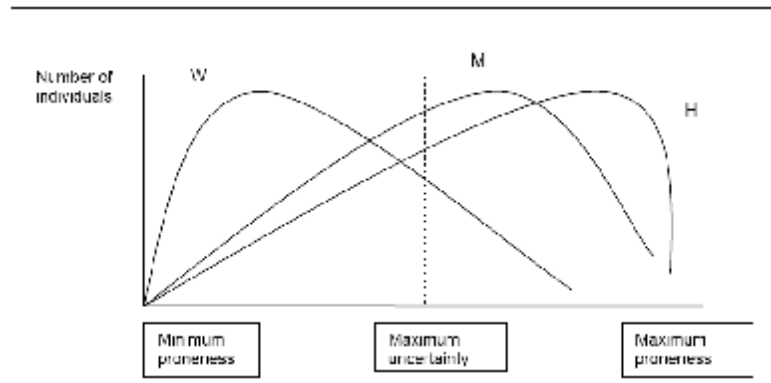
As the figure above (2.3) shows, the maximum for working class individuals (curve W) is closer to the left extreme of the X axis, while middle (M) and high class (H) individuals are more skewed to the right. In other words, Gambetta assumes that middle and high class parents see education as a necessary commodity, while working class parents do not. Were they *pushed* or did they *jump*? " […] they jumped [but they did it] as much as they could" (Gambetta 1987: 187).

---

[17] Gambetta (1987: 76) describes the consequences of these inertial forces as a *Socratic "knowledge of ignorance"* which leads to self-discrimination.

2.2.3.2. Social distance and educational ambition

With Gary Becker (1976 and 1993) and Raymond Boudon (1974) the scientific approach to human behaviour was strengthened from the rational choice point of view. This represents a smart alternative to the theories reviewed in the previous sections. Becker offered a pioneering conceptualization of education as an investment and since then, economists and many sociologists are more committed to the methodological individualism and to the belief that all social phenomena are the result of individual actions and interactions (Goldthorpe, 2000). Rational choice marginalized the role that culture and group membership traditionally played in sociology.

Rather than reporting preferences for education to social origins, the 'structural theories of aspirations' suggest the existence of a universal preference for education across social groups (Goldthorpe, 2001). Indeed, the assumption that individuals prefer more good than evil is not only more parsimonious, but also less aggressive than relating preferences to social origins in the context of higher returns to education (Breen and Luijkx, 2004). But if preferences are the same, what explains class differentials? For Boudon (1974), the distance that separates social origins and destinations is logically a function of the initial social position. The amount of ambition required to reach a particular destination, is clearly dependent on how far the point of departure is. Keller and Zavalloni (1962 and 1964) inaugurated the micro-sociological theories of inequality of education that Boudon labelled as 'social position theories'. In these accounts, aspirations are conditioned by structural factors such as social class origin. This allows a homogeneous definition of aspirations across classes although they must be weighted by the social distances to cover.

In a model called Inequality of Educational Opportunity-Inequality of Social Origin (IEO-ISO), Boudon (1974) explains why higher levels of attainment may not reduce class differentials

in education.[18] For him there is a correlation between social background and the individual aptitudes to succeed at school. Boudon also argues that the independent effect of individual social position in coalition with the characteristics of the educational system determines the structure of costs and benefits that constrains the individual decisions.

Graph 2.4. Inequality of Education Opportunity Model (Boudon, 1974)
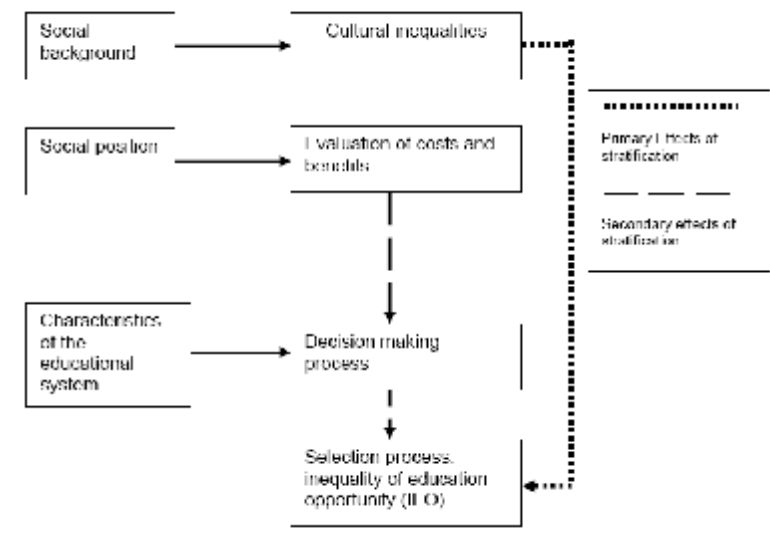
For Boudon, the group differentials in education are due to two different sources of inequality:

- Primary sources of inequality link the individual socioeconomic origin to the proven ability at school. Here we could embrace constraints that derive from material disadvantage -translated into education of

---

[18] Note that the scheme below only reflects the IEO side.

worse quality-, cultural deprivation -including the unequal information about the educational system- as well as IQ differences.

- Secondary sources of disadvantage are the consequence of the existence of class specific cost-benefit structures at each branching point.

The educational expansion and the vast majority of the educational reforms targeted primary effects and ignored secondary obstacles, which for Boudon are more important. If tastes for education are equal across classes, differences in cost and benefit structure result in different incentives to continue studying, so ambition and determination are also a source of differentiation. Consequently, any educational reform seeking a reduction of the social differentials in educational attainment should target not the pedagogic practises but rather a universal reduction of any sort of economic inequality.

Other authors have rejected the view of secondary effects as the real determinant of educational differentials. For Halsey *et al.* (1980: 126-146) it is via the secondary effects that the potentiality of primary effects is strengthened. More recently Erikson *et al.* (2005) suggested that secondary effects are not constant over time. They showed that even if at the end of the compulsory education working class children dropout more, their survival rate in education increases at ages 17 and 18. Yet, other studies have pointed to the central importance of secondary effects. Breen and Goldthorpe's 'relative risk aversion' (1997) holds that educational choices minimize the risk of ending up with a lower level of education than one's parents.[19] Although this argument was already known in the literature (Keller and Zavalloni, 1962 and

---

[19] The formal model was revised (Breen, 2001) to provide a behavioural foundation to Mare's (1981) model. It is coherent with Mare's view of the educational career as being constructed of consecutive steps. Breen and Goldthorpe's model has been empirically tested for the Dutch case and their conclusions seemed to be confirmed (Need and De Jong, 2001).

1964) it is here stylishly combined with the existence of different points of departures in the social scheme (social origins). Education obliges individuals to face risky options such as staying in education and trying to succeed, as well as safer ones like dropping-out and looking for a job. At each branching point the expected utility is a function of the constraints imposed by the class of origin and the subjective probability of succeeding. The relative risk aversion explains why below the threshold defined for each social group, transition rates to the next educational stage are the same. The difference comes between groups above a given threshold because the subjective belief in one's perspectives of succeeding depend on the distance to the threshold because the cost of additional education for children below the threshold is higher in terms of the loss of contacts in their networks and the lack of professional experience that potential employers will value if they fail. The argument is intellectually appealing, and has many other positive aspects such as framing individual decisions in a broader social context as an externality that shapes individual behaviour.[20]

---

[20] Breen (1999) completed this model with a study of the evolution of the subjective beliefs about success and the ability to estimate the returns on effort and how much of it to invest. The incorporation of changing individual beliefs is an alternative to the perfect information assumption in Mare's behavioural model. People act under the influence of provisional beliefs that are updated. The argument is also relevant to the theories that relate beliefs and sub-group preferences with social reproduction processes. Breen assumes that beliefs about the individual probability of succeeding in education are a function of the effort that the individual thinks that he will have to invest, the believed return to any given effort plus, his individual ability and the belief that he may receive a payoff. In the light of all these elements, individuals estimate the amount of effort that they will have to invest in education. The Bayesian process of updating beliefs is also influenced by children's educational experiences and the parental beliefs.

****

The chapter five will look at how much of the significant immigrant effect in education can be explained by the general mechanisms that link social origin and educational attainment. Therefore, the three general explanations as to the correlation between social origins and educational attainment covered in this literature review –material disadvantage, cultural deprivation, and educational expectations- will theoretically inform the empirical explanations of the significant immigrant effects in educational attainment found in chapter five.

Details about the empirical operationalizations of these arguments will be provided in detail in chapter five. Regarding the material resources at household level, the main dataset provides certain proxies of material resources including the specific share of the income that could be devoted to education and the type of school attended by the student (private/public). On the subject of cultural deprivation, it includes information about consumption of TV and highbrow activities, and parental education. Finally, it offers a mixed proxy of educational expectations that collapses the meaning of preferences for education and ambitions. A detailed description of the implications of each operationalization will then be provided. Given that in some cases, this operationalization is insufficient, some complementary analyses will be provided using an auxiliary dataset that includes finer approximations to these concepts.

Because of the sort of indicators of attainment included in the 1995 Panel of Students, the main focus of the thesis is on primary effects (the cross sectional and dynamic study of grades). Yet, the Panel-95 allows us to look at the tracking of students in upper secondary schooling, which under certain circumstances can help to identify secondary effects too. Details about the nature of the dependent variables will be given in chapters four and five.

CHAPTER 3. ETHNICITY AND DISADVANTAGE

This chapter reviews the theories that use ethnic-related factors to explain the status attainment of immigrants. Naturally this does not mean that the general processes reviewed in the previous chapter do not operate, but only that they have to be complemented from the ethnic side. The following graph gives the analytical context of an ethnic approach to educational differentials between immigrants and natives:

Graph 3.1. An ethnic approach to the explanation of the immigrant effect
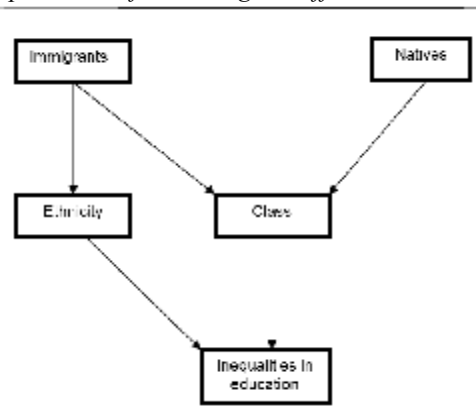
The chapter is organised as follows. It first introduces the use of ethnicity as an explanatory variable in the literature on immigration and disadvantage. The chapter then reviews the traditional cultural and situational explanations, which connect the immigration effect to ethnic disadvantage. After that, it goes over the main efforts to overcome this traditional dichotomy: the child investment model, the ethnic capital and the modes of incorporation. Because many of these approaches to ethnic disadvantage highlight the importance of social interactions, the chapter also explores the most important findings of the literature on peer-pressures.

3.1. Introduction: Ethnicity as an explanation of immigration disadvantage

During the 1980s and 1990s, economists and sociologists witnessed a rapid growth in studies on immigration and disadvantage.[1] It was in this context that ethnic explanations of the immigrant effect spread, pushing to one side the assimilation illusion that informed the previous research on immigration and status attainment. This optimistic view suggested that, even if at the time of their arrival immigrants were worse off than natives, the immigration constraints fade out over time in the host country as newcomers overcome the imperfect transferability of human capital (Friedberg, 2000).[2] This was the foundation of the

---

[1] The list of topics is intractable: who migrates (Borjas, 1987; Chiswick; 2000), the wage convergence with natives (Chiswick, 1978), the transferability of human capital (Friedberg, 2000), their investment in human capital in the host society –education (Betts and Lofstrom, 2000), language proficiency (Grenier, 1984; MacManus *et al.*, 1984)- and the impact of immigrants in the host welfare systems and the labour market (Simon, 1989), etc.

[2] This argument was empirically confirmed by studies on the wage convergence between immigrants and natives (Chiswick, 1978; Carliner,

customary description of American society as a 'melting pot' where individuals were stratified on the bases of merit rather than racial hierarchy.[3] Even though this view has been contested for some time (Glazer and Moynihan, 1963; Novak, 1972), it was not until the end of the 1980s that the equalizing effect of the length of residence in the host society was openly questioned. In those years, researchers argued that certain groups appeared to be unmeltable since their convergence with natives in almost every indicator of attainment seemed blocked.[4] For some, an excessive focus on the positive impact of the time since arrival ignored the existence of cohort effects linked to the changing ethnic composition of migration inflows to the US. This last factor was responsible for the declining quality of migrants in terms of unobserved characteristics in comparison with the former European inflows (Borjas, 1985 and 1987).[5] The American sociologists gave several explanations to this phenomenon including the change in the 1965 amendments to the US Immigration and Nationality Act that finished with the quota system for the concession of visas per emitting country and eased family reunification.[6]

1980) and in the study of educational attainment (Chiswick and DebBurman, 2004).

[3] Melting pot theorists were primarily based in the University of Chicago (Park, 1914). Their claim was that there were three stages towards complete assimilation, first contacts, accommodation and assimilation -when intermarriage and interbreeding were frequent.

[4] This was also confirmed in educational attainment (Betts and Lofstrom, 2000). This does not deny the fact that the overall level of educational attainment among immigrants rose because of educational expansion.

[5] Some scholars continue to believe in the existence of period rather than cohort effects. These authors blame Borjas for not considering the changing context in the host society where human capital is increasingly under-priced (Chiswick, 1986; Duleep and Regets, 1992 and 1994; La Londe and Topel, 1992; Yuengert, 1994).

[6] The discussion on the impact of family reunification on socioeconomic integration has had strong policy implication. For some,

The impact of the changing ethnic composition of the migration inflows to the US attracted a lot of Media and scholarly attention, and ethnicity became a prominent explanation for immigrant disadvantage. But ethnicity is a black-box that camouflages variation across several dimensions such as the average levels of formal education brought by immigrants (Barro and Lee, 1993), differences in the quality of the school system in the country of origin (Bratsberg and Terrell, 1997) or the diversity of national political and economic conditions that affect immigrants' attainment (Borjas, 1987; La Londe and Topel, 1992; Funkhouser and Trejo; 1995).[7] Despite its conceptual obscurity, ethnicity has often been characterised as a strong determinant of individual and social identity, and collective action (Light and Gold, 2000: ix). In this context, the study of the intergenerational mobility of immigrants occupied a central position in the research agenda of many social scientists. Several suggested that the constraining impact of ethnicity is transmitted to the second generations (Borjas 1993), and possibly to the third and fourth (Borjas, 1994a). To sum up, although the debate remains open, experts suggest that "[e]thnicity matters, and it seems to matter for a very long time" (Borjas, 1994b: 1711). The next sections explore the most popular theories that explain why this could be the case.

---

acceptance in the US had to depend on skills rather than kinship because it stimulates labour market participation (a review in Duleep and Wunnanda, 1996).

[7] There seems to be a stable association between the national GDP per capita and the emigrants' wages of their host societies (Jasso and Rosenzweig, 1986). Borjas (2000) has recently argued that income inequality, economic openness, spatial distance from the US and political stability in the emitting country, determine future wages. Variation in these indicators explains differences in the convergence of wages (Borjas, 1995; Duleep and Regets, 1997c and 1997d; Schoeni; 1996; Yuengert, 1996). Tribalat *et al*. (1991: 169-71) argued that when social evolution and family structure in the home country are similar to the receiving country, the convergence happens earlier.

The interpretation of the unexplained ethnic residual in multivariate analyses, controlling for individual level variables, is one of the most vibrant discussions in the literature on ethnicity. Explanations given as to why the intergenerational transmission of ethnic inequalities persists, remain unsatisfactorily unclear. From the ethnic effect, many have inferred the existence of cultural constraints, racial hierarchy or discrimination and more recently, broader contextual elements related to the group's social capital. The rest of the chapter reviews the most significant efforts to interpret and explain the ethnic effect (see graph 3.2), that inform the empirical analyses presented in chapter six.[8] This chapter specifically reviews:

- Cultural explanations with an anchor in widely-spread stereotypes about different ethnic groups.
- Explanations based on discrimination and racial hierarchy that reacted against the prevalence of cultural arguments.
- Newer theories that complement traditional individual level explanations with the broader contextual factors.

---

[8] Even before, some suggested IQ differentials across races (see Sowell, 1978: 207-214 for a short review). Drew (1995: 6) says that in 1985 the Cambridge academics commissioned to elaborate the *Swann Report* suggested a genetic inferiority of Afro-Caribbeans. Smith and Tomlinson (1989: 7-8) explain the poor image that the *Swann Report* gave about the Caribbean because West Indians tend to live in segregated neighbourhood, something ignored by the *Swann Report*.

Graph 3.2. Explanations of ethnic inequality
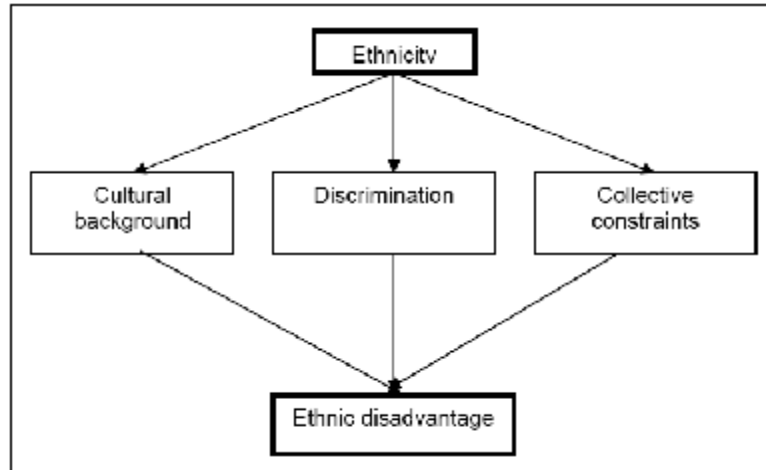
3.2. Traditional explanations of ethnic disavantage: Culture and discrimination

3.2.1. Cultural explanations

These arguments explain ethnic differences in school attainment through the group's cultural inclination towards success, effort and more generally through a group-specific approach towards schooling. Culture –defined as the set of attitudes and values brought by the immigrants from their home country before they became minorities- is the main independent variable that binds individuals to each other (Cornell, 1996). Cultural explanations suggest that the differences in the social mobility of ethnic groups result from the way co-ethnics have traditionally valued effort: some groups have a taste for work/studying while others do not. As a result, certain cultures are an economic asset, while others slow progress.

These explanations were widespread in the 1960s. Many were modern interpretations of Weber's The Protestant Ethic (1985), which inspired the standard definition of ethnicity as a shared culture.[9] Many have used this logic to explain ethnic differentials in the socioeconomic mobility of certain ethnic minorities in the US such as the Chinese (Lee Sung, 1967), the Japanese (Peterson, 1971) or the Jews (Glazer, 1955; Marshall; 1971).[10] Most of these works contain inductive ad hoc explanations that arbitrarily attribute causality despite conceptual obscurity, a lack of comparisons and methodological rigor. For instance, Stryker (1981: 212) proposes a modern secularised version of the Protestant Ethic hypothesis to ethnic minorities in the US. The author explores the effect of ethno-religious membership to conclude that Jews, Irish and Anglo-Saxon Catholics have a highly positive cultural orientation to education and occupational status while Italian Catholics are in an intermediate position and German Lutherans a negative one. The mechanism that spreads these views is social interactions, deduced from the statistical significance of a dummy variable built to model the impact of Catholic schools.

Cultural explanations tend to be vague, imprecise and simplistic accounts of reality or the fallacy of the single factor (Parekh, 1983). The commonest causal mechanism found in the literature is that group X has a long term horizon associated to larger discount factors. This explains why they invest in assets such as education even if the return is not immediate. Likewise, because of lower discount factors, other groups are short-sighted and its members are not able to delay the reception of payoffs. Why do groups differ in their discount factors? Cultural theories normally relate this to the history and idiosyncrasy of nations or

---

[9] The argument is that capitalism has stronger roots in central Europe than in the Catholic South because the protestant ethic, especially Calvinism, represents fertile ground since it holds that work and merit are devoted to the glory of god, and occupational success is a grace.

[10] Part of this literature explains the propensity to self-employment among Chinese, Japanese and Koreans (Lights, 1980).

smaller groups. The 'Diaspora hypothesis' for the Jews' success is one of the few cultural explanations with a non-tautological explicative mechanism. Due to the long history of discrimination and exile, the Jews developed a preference for investment in portable assets such as human capital and this explains their educational success since their early arrival to the US (see Chiswick, 1985 for a review).

Thomas Sowell's Ethnic America (1981) was one of the most influential cultural accounts of ethnic differentials in social mobility. Sowell compares the evolution of four upwardly mobile groups -the Chinese, the Germans, the Japanese and the Jews- and five downward mobile ones -Black Americans, the Irish, the Italians, the Mexicans and the Puerto Ricans. The author claims that the average age in the group, its spatial concentration, the fertility rates or the discrimination that its members face cannot in themselves explain why the Jews are better off than the Mexicans, or why the Chinese and Japanese migrants to the US largely attained higher education despite the severe anti-oriental laws in many American Universities. Sowell acknowledges that all immigrants perform better as time from migration passes, but argues that this timing is group-specific. In his opinion, this can only be explained by the different cultural background in which the groups are embedded -values, social contacts and skills. Only those groups that share compatible values with industrial and commercial growth improve rapidly, even in discriminating environments. While Jews are used to working with resilience, Italians -especially Southern ones- perceive education more as a consumption good than as investment. Elsewhere, Sowell (1996) leaves space for other explanations such as similarities across national borders or coming from mountainous regions.[11] Like other cultural explanations Sowell's reifies culture:

---

[11] Jelen compares the social mobility of immigrants in France, the United Kingdom and the US and concludes that successful minorities show higher levels of family cohesion, more willingness to work and a

"[…], groups today plagued by absenteeism, tardiness and a need for constant supervision at work or in school are typically descendants of people with the same habits a century ago" (Sowell 1981: 284).

There are many criticisms to cultural accounts of the ethnic residual. Apart from their analytical obscurity, many critics have concentrated on the moral implications of cultural arguments. Although early sociology rejected biological racism, it has not been that rapid to do so with cultural racism, a new version of social Darwinism that also blames the victim (Steinberg, 2000). Baker (1981) speaks of a new racism that ignores genetic differences but focuses on different ways of life.[12] Despite all this, cultural explanations reappeared in the 1990s (Harrison 1992, D'Souza 1995, Sowell 1996; Harrison y Huntington, 2000).

3.2.2. Discrimination and racial hierarchy

The focus on discrimination came as a reaction to the pre-eminence of cultural explanations and as a consequence of the struggle between Marxist and non-Marxist theorists over the need for a specific theory to explain ethnic inequality (see Rex and Manson, 1984: chapter 3 for a complete review). The sources of discrimination can be very varied. Wieviorka (1992: 183) differentiates between discrimination as the expression of

---

better understanding of the importance of education (1993: 52-3). Chinese and Vietnamese immigrants are embedded in Confucian and Mandarin values while North and Black Africans have difficulties in school because of their misbehaviour, lack of punctuality and discipline. Jelen even affirms that knowledge is not a structural part of their mental landscape (p.67).

[12] Sowell (1996: 36) identifies different propensities to save, alcoholism, violence or criminality among ethnic minorities. German immigrants are hard workers, second generation Japanese very willing to learn, Chinese are net savers, and Jews are good in business and education.

hierarchy –some groups hold a higher status than others- and the type of racism that rejects certain identities. For some, discrimination is also a cultural construct deriving from the ethnocentrism embedded in the process of socialization (Hamilton, 1981). Using a marginal productivity analysis, Becker (1957) proves that if white employers were exclusively committed to efficiency, they would hire more blacks. Thus, discrimination exists because there is a taste for it. But, it can also echo struggles for power, wealth or prestige. This is the view of many Marxist theorists who argued that capitalism deployed racism to ensure the ethnic status quo. Accordingly, Hechter (1975) suggested that discrimination in modern societies is an expression of internal colonialism. This implies that ethnic cleavages are superimposed by social classes.

Steinberg's *The Ethnic Myth* (1981) defines discrimination as a conflict for resources and describes the dynamics of ethnic coexistence as being ruled by the iron law of ethnicity. Because of ethnocentrism and prejudice, ethnic hierarchy over status, wealth or power is accompanied by ethnic conflict.[13] For him, no group clustered at the end of the social ladder would consciously remain attached to its ethnic roots if they were perceived to be the cause of their relative deprivation, and so therefore only advantaged groups would preserve their ethnic difference. Thus, ethnic minorities are ready to subvert their identity for the sake of social mobility. Downward mobile groups aspiring to upward mobility would show an intense assimilation into the cultural and social mainstream, especially if the ethnic stigma justifies hierarchy.[14]

---

[13] Steinberg rejects the cultural pluralism of many of the 'anti-melting pot' theorists, because the long term preservation of ethnic borders is untenable given the systematic inequalities between ethnic groups in the US.

[14] The opposite is argued by Portes and Sesenbrenner (1993) for whom the existence of discrimination is essential for the apparition of bounded solidarity so it can even appear in groups with no feeling of we-ness. Cultural or phenotypical differences produce prejudice and

Ogbu (1998: 765) argued that racial inequality persists over time because class stratification is parallel to a process of ethnic stratification in a 'non-colour-blind' labour market. Ethnic stratification is the consequence of the sorting of individuals on the basis of ethnic and/or racial markers -mainly the colour of the skin- associated to status, honour and moral worthiness. The group position is a function of the amount of status/honour owned by the group. This models the value that members of the dominant group attach to the colour of the skin. For Ogbu, stereotypes associated to ethnic markers are lifelong-lasting.

A complete review of the various theories of discrimination is beyond the scope of this chapter. Even if the empirical analyses cannot consider all of them, this section will nonetheless review the literature that focuses on two sorts of mechanisms through which discrimination could constrain educational attainment: discrimination deriving from the educational system and the labour market.

3.2.2.1. Discrimination in schools

There are two potential sources of discrimination in schools. On the one hand the student's attainment could be constrained by the teacher's or non-minority peers' harassment. On the other, minority students and their families can feel excluded from the educational system if the curriculum and the pedagogic practises in schools are not sensitive to their ethnic identity or if, in general, the school system ignores cultural diversity. Because of data constraints chapter six will only focus on the existence of harassment at schools. Yet it is important that this literature review describes how the French school system has become more responsive to the ethnic composition of the student-body. Harassment from teachers and the content of the school

---

constrains individual opportunities. Hence, individuals rely on solidarity to overcome discrimination.

curriculum could be related if the multicultural approach to education is able to neutralize negative views and stereotypes about immigrants and minority students.

The idea that the school system constrains the normal development of minority children has been common in Europe, and especially in the UK. Troyna (1989) proposed a model of explicit antiracist education including a wide range of curricular and pedagogical strategies to promote racial equality and the elimination of individual and institutional discrimination.[15] In the 1960s and 1970s, the British schools were mono-cultural institutions that ignored ethnic diversity. When the 'Swann Report' (*Education for All*, 1985) revealed the overlap existing between ethnic and social stratification, a certain social unrest forced a battle against racism and discrimination in schools. Modood *et al.* (1997) for example argued that ignoring discrimination results in the unequal distribution of schooling among minorities.

When in the 1960s several European nations became multiethnic, a number of school reforms sought to neutralise discrimination. Some authors argued for the need to shortening the cultural distance between school content and the children's family context. However the very idea of integration continued to be inspired by the assimilation paradigm and the national curricula did not represent the multiethnic character of the host societies. It is known that immigrant and minority parents attach considerable importance to the cultural openness of the school curriculum, with a special reference to their own culture of origin. For instance, in the United Kingdom Smith and Tomlinson (1989: 86-89) have shown how the low level of attention paid to religion is a source of disaffection for many minority parents even if its combined with the teaching of their religious credos. Their data showed that

---

[15] See Fyfe and Figueroa (1993: chapter 2) for a review of the debate between antiracist and multicultural approaches.

native languages are also demanded by one out of three families that speak another language (p. 95).

In the 1970s multicultural reforms tried to integrate ethnic minorities in Britain. A special reference has to be made to the 1988 Educational Reform Act that transformed the national curriculum and is the single most important piece of British education legislation together with the elimination of fees in secondary schooling in 1944. Critics of these reforms, continue to interpret them as liberal re-editions of the assimilationist model of education that sought to transform immigrants and their descendants into natives (Troyna, 1989: chapter 3). Whatever the case, where similar reforms took place, they did a lot to reflect multicultural concerns through the inclusion of alternative lifestyles in the national curriculum.[16]

In France the incorporation of non-native cultures into the national curriculum has faced enormous political resistance. As was argued in the introduction, the National School set its foundations during the 3rd Republic when compulsory primary schooling was used as an instrument to neutralise the regional/national differences that co-existed in the Hexagon until the 19th century. Since its inception, the French school system has sought to erase regional differences in order to impose national unity and increase the homogeneity of the French Culture. Since that time, laicism and equality have become the most important normative pillars of the French political philosophy.

The flexibility of this ideology is a recent phenomenon in France.[17] In the 1980s, the view of integration as socioeconomic convergence with the natives became insufficient. Integration also

---

[16] There are different approaches to multicultural education (see for example Fyfe and Figueroa, 1993: chapter 3) although here I focus on the curriculum content approach.

[17] Jack Lang (Minister of Culture between 1981-1986) referred to the right to be different -*droit à la difference*- as the new *leit motiv* sponsored by the Ministry of Education to incorporate regional differences into the French cultural landscape. As a reaction, ethnic minorities also began to claim their *right to be different*.

implies an active participation of the new comers in redefining their relationship with their culture through the prism of citizenship. Accordingly, the High Council for the Integration of immigrants argued that the widening of the national curriculum did not contradict the Republican tradition followed by the French public school. On the contrary this institution believes that teaching about "[…] our ancestors the Gallic to a young Algerian, Senegalese or Tonkinese is the manifestation of a universalistic conception of France, from the 1789 Revolution onwards" (HCI, 1993: 117). The national curriculum could finally accommodate the growing cultural diversity of French society (Perroton, 2000: 443-448). Without renouncing the guiding Republican ideal of laicism, the HCI suggested enriching the national curriculum with the Islamic-Mediterranean dimension of the French culture and proposed the incorporation of the study of the main religions in France -Christianism, Judaism, Islam and Buddhism- and their different cultural manifestations in literature, iconography, theatre, music, etc. It sought to open French education to the world (Favell, 1998: 74-5). This represented a turning point in the nature of the French school system.

> "If the school has a key role in the immigrants' integration process […], it is also the place were a rich dialogue can be established between the parents and the children about the diversity of the [immigrants'] cultural contribution" (HCI, 1993: 116).

Despite these changes, some continue to claim that regional and foreign languages, cultures and religions are almost invisible in the national curriculum (Limage, 2000).[18] It seems that the

---

[18] These needs have in some cases been addressed by the emigration countries, which have paid teachers and hired spaces in public schools to teach immigrant culture and language in order to preserve the link with second generations. None of these measures were part of the bilateral agreements signed by France to regulate migration inflows (Limage, 2000: 85).

broader civilizational and cultural scope of the national curriculum promoted by the HCI has not been a panacea. Muslim identity in France has evolved in a confrontational way, acquiring a strong identity as a consequence of the various 'head scarf crises' from 1989, in spite of the heterogeneity of the Muslim population living in France (Kepel, 1984).

Despite their laudable aims, many criticised these reforms for only addressing the cultural side of school discrimination, while ignoring racism and other sources of discrimination (Parekh, 1986). Some international empirical research has identified racist attitudes among teachers in early schooling (Akhtar and Stronach, 1986; Carrington and Troyna, 1988; Short; 1987), while others found few traces of racial prejudice and discrimination in schools. Smith and Tomlinson (1989: chapter 6) showed that only 1% of parents report racial attacks occurring in their children's schools, but two out of eight think that teachers discriminate. Moreover, ethnicity seems to be a key factor in the organization of social relations in schools and classrooms only after gender, but before social class, age and school attainment (Davey, 1987; Smith and Tomlinson, 1989), a finding that has also been reproduced in France (Perroton, 2000).

Ogbu is possibly the most prominent theorist in the field. This author argues that as a reaction to discrimination, minority children develop an oppositional identity –distinct cultural and language norms that cohesify the group (Ogbu, 1991). This has obvious consequences for the study of educational attainment since in some cases the code of behaviour imposed by a minority for example includes rejecting school and putting a lower value on education -'acting black'- (Fordham and Ogbu, 1986). On the contrary 'acting white' is associated with school success. It is important to stress that this distinction is not relevant for every group. Voluntary minorities –as opposed to involuntary ones-, who migrated by choice to improve their opportunities and life conditions, are not negatively affected by any sort of oppositional culture since they compare themselves to their national

counterparts irrespective of the host society dynamics (Gibson and Ogbu, 1991).

3.2.2.2. Labour market discrimination

In the long run, labour market incentives are known to be a key determinant of educational attainment. More specifically, labour market discrimination has two different effects on the incentives for the educational investments of minority students. If we plot the returns to education across groups (graph 3.3), labour market discrimination can impose group-specific intercepts or slopes. If the intercepts differ across groups (scenario a), those for whom the intercept is smaller may have stronger incentives to stay at school. However, if the slope varies across groups (scenario b) there may be fewer incentives to invest in education.

Graph 3.3. The effects of labour market discrimination
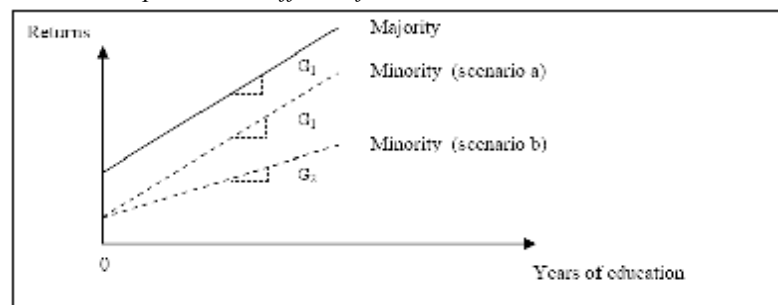
It can be clearly seen that in the first scenario (a), spending one year more in the educational system rewards the minority and majority student with the same increase in terms of returns to education (D_1), while in the second scenario (b), the increase in returns for this very same investment is smaller for the minority

(D_2) than for the majority students (D_1). Therefore, it is only under the second paradigm that labour-market discrimination disincentives the educational investments of minority students. Heath and Cheung (2007) have concluded that returns to education tend to be similar for natives and second generation immigrants, although smaller for the foreign-born. Yet, this is precisely what several scholars of discrimination have used to explain ethnic differentials in education (Loury, 1997; Morgan, 1998). Ogbu (1998: 765) argues that the labour market continues to discriminate against immigrants and ethnic minorities, even though in the recent decades reforms have neutralised ethnic disadvantage, including the 'sponsored social mobility' of ethnics in a non colour-blind market. Ogbu mentions various ways in which ethnic stratification affects educational outcomes – segregation and school effects- but it is the unequal assignation of rewards to education that may indeed be a key factor. These externalities imposed by labour market discrimination are known as ethnic penalties (Heath and MacMahon, 1998).[19] These penalties suppose a disadvantage if equally-qualified ethnics and majority individuals compete with each other but the member of the majority is more likely to succeed. Empirical studies have confirmed their existence (Moodod *et al.*, 1997; Cheung and Heath, 1993; Betts and Lofstrom, 2000). Chiswick (1988) also proved the existence of different returns on education across ethnicity and that groups that on average attain less education also

---

[19] Although second generations in the UK perform better than their parents -probably because they began their education in the host country-, labour market discrimination is inheritable from one generation to another since being born in the host country is not associated with any improvement in chances (Heath and MacMahon, 1998). Smith and Tomlinson (1989: 9) have argued that students born in the UK do significantly better at school than first generation movers. They have also shown that once West Indians and South Asians stay in education after compulsory stages, they are more likely to reach the university than natives. For them, this is because they want to be more qualified to face labour market discrimination (1989: chapter 2).

get poorer rewards. In France, Silberman *et al.* (2007) have seen signs of lower returns on education among immigrant-origin workers (second-generation) from certain ethnic backgrounds (former French colonies, especially if dominated by Muslims). Their work shows that even if children of foreign-born immigrants enter the labour market with educational credentials that are below those of natives, this cannot explain their higher rate of unemployment.

For Morgan (1998) the short-term mechanism through which labour market discrimination disincentives investment in education is motivation. He has argued that returns on education in the labour market are a strong determinant of teenagers' educational expectations. In fact, the expected returns and the availability of material resources at the household level explain variation in expectations. Morgan suggests that the combination of both factors in the right direction stimulated attainment.

None of the datasets used in the empirical part of this thesis allows modelling the sort of discrimination that derives from the labour market. However, it could be argued that the variable used to model educational expectations –the perceived utility of each diploma to find a job- could also incorporate the effect of labour market based discrimination.

3.3. Explanations beyond individual factors

In the 1990s, theorising on ethnic disadvantage rapidly overcame the traditional dichotomy between culture and discrimination. Yet, the processes through which ethnicity transmits disadvantage remain obscure to social scientists (Borjas, 1995: 365).

> "[The] perspective on the racial and ethnic composition of the population suggests that public policy and research questions relevant for […] ethnic comparisons are more complex than has been realised" (Chiswick, 1988: 575).

This new theorising revealed the insufficiency of individual level variables to explain immigrant effects in status attainment with the changing ethnic composition of the migration inflows to the Western world and the increasing access through family reunification after 1965 (Vermeulen and Perlmann, 2000).

With certain exceptions (Granovetter, 1983 and 1995; Lin, 1981 and 1990), the literature on status attainment has generally ignored the fact that individuals are embedded in social contexts that influence their courses of action. However, recently there has been a more interest in social links and social capital.[20] Coleman (1988) thinks that the culture in which an individual grows up is a particular form of human capital shared by his or her group. Ignoring the context has worrying implications for research on immigrants and ethnic minorities because the socially oriented nature of individuals' economic actions is a well established argument in the sociology of immigration (Portes 1995).[21] "[T]he role of the community forces is the least known, and its knowing is most resisted. Yet it is among the things that most distinguish immigrant minorities" (Ogbu, 1998: 775).

The following pages review three successful explanations of ethnic differentials that transcend from individual level variables.

---

[20] For Bourdieu (1985) social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition. Coleman (1988) sees it as a powerful source of control. The consensus in the literature defines it as the ability of actors to secure benefits by virtue of membership in social networks or other social structures. Portes (1998) identifies four sources of social capital: internalized norms, reciprocity, solidarity and the sanctioning capacity of groups.

[21] Ethnic relations involve dynamics that also affect other social relations: group formation, solidarity, assimilation and collective action. Nonetheless ethnic organizations are extremely important sources of punishment/reward individual cost and benefit determination (Hechter, 1986: 265).

All of them have in common the taste for generalisation and the rejection of post hoc explanations:

- The *Child Investment Model* (Chiswick, 1988) bases the explanation in family level variables and collectively imposed rules.
- The *Ethnic Capital* (Borjas, 1992) refers to the quality of the ethnic context in which the individual grows up.
- The *Modes of Incorporation* (Portes and Rumbuat, 1990 and 1996) incorporate institutional factors such as immigration policy, discrimination and the effect of community structures.

3.3.1. The family level: The Child Investment Model

In his work *Differences in education and earnings across racial and ethnic groups* Chiswick (1988) explains ethnic differentials in educational attainment using the well-known argument of the trade-off between the *quantity* –number- and the *quality* of the children in terms of educational attainment, health, etc. (Becker, 1981). Of course, this trade off is also relevant to explain ethnic majority behaviour but, as I shall argue, Chiswick makes of it an ethnic-specific argument.

Earnings, schooling and the returns on education vary consistently across ethnic groups. While in the US, the Chinese, Japanese and Jews are successful on almost every socioeconomic indicator, including investments in education; the Blacks, Philippinos, Mexicans and West Indians are clearly less successful. Chiswick argues that suffering from discrimination and other external variables can never give a complete picture, since many successful groups have also suffered from open hostility.

Chiswick proposes a general explanation of the differences across ethnic groups based on the existence of household level strategies. For this author, group differentials in educational attainment result from the relative value of the quantity and

quality of the children or to put it in another way the trade-off between the number of children versus the amount of effort and resources invested in their education. His hypothesis is that groups, in which the cost of quantity relative to the quality of children is higher, are likely to invest more in education. His main mediating factors are fertility rates within each group, female labour supply and the amount of intergenerational transmission of wealth.

The author says that the correlation between parental education and the children's attainment reflects a strong transmission of inequality. Actually, the most successful ethnic groups in the US are those for whom parental education is higher. But this process is also mediated by the existence of differences in the family structure. Families with fewer children restrict competition for scarce resources. This is reinforced by the fact that the advantaged groups had declining fertility rates over the last thirty years -Chinese, Japanese and Jews. On the other hand, the Filipinos or the Mexicans, whose fertility rates remain high, present lower levels of educational success. The author argues that the inverse relationship between educational attainment and family size proxies the trade-off between quantity and quality. Whenever there are fewer children the relative price of one is higher and the family is willing to make greater investments in his or her education. This is more common in urban rather than in rural areas and again, this is consistent with the presence of Blacks, Chinese, Japanese and Jews in large cities in comparison with native Blacks, Mexicans and Filipinos.

Female labour market participation determines child quality in two ways. Firstly, if the mother does not work, she devotes more time to the rearing of children. But if she does work, the household can rely on an extra-wage. Controlling for education and the fathers' income, the Chinese, Japanese and Jews present lower rates of female employment in families with children, and a higher proportion of women in the labour force when the family does not have children or the children are older.

Yet, childrearing is time-intensive up to a certain age and good-intensive thereafter. Adaptation to this changing nature of childrearing explains the success of the Jews relative to other groups (Chiswick, 1986b). The distribution of children at home and female labour supply shows that Jewish women have greater labour market involvement. This finding can be complemented with the fact that the disincentives of having children under six are larger for Jewish than for non-Jewish women and there are no differences in the likelihood of participating in the labour market between Jewish women having children older than 18 years of age and women without sons.

Chiswick's argument is ethnic specific because the notable ethnic differentials in the position of minority individuals regarding the trade off between the quantity and the quality of the children, is partially determined by group factors such as for instance the psychic cost of fertility control, which is very high for Catholics (such as the Latin Americans and the Philippinos). Of course these considerations are endogenous to the generation, so they can be more important for firstmovers than for their children. It is obvious that this final part of the argument somehow links the child investment model to cultural differences in fertility preferences.

3.3.2. The effect of the social context: The Ethnic Capital

The ethnic capital argument refers to ethnicity as an externality in the accumulation of human capital (Borjas, 1992a). For ethnics, educational attainment is a function of the amount of resources and effort that parents invest in the child *plus* the effect of the average quality of the ethnic environment in which he grows, which determines the effectiveness of parental inputs. Borjas' operationalization of the concept is questionable. If we measure the impact of the wider environment on the children's status attainment and the effectiveness of parental inputs, then

using the average value of a given indicator of status in the parents' generation is maybe too broad. A more geographically restricted measure would be more appropriate since this externality partially operates via neighbourhood effects (Borjas, 1995: 373).

Ethnic capital plays a crucial role in the intergenerational mobility of ethnic minorities because it determines the timing of their progress. Parents make investments in their children's quality (k_{t+1}) depending on the stock of human capital that they posses (k_t).[22] They decide how to allocate these resources in their children's education and their own consumption (C_t) by maximizing the following utility function U=$U(k_{t+1} + C_t)$. But this is constrained by the ethnic externality which Borjas proxied with the average human capital stock in the parents' generation (K_t). As a consequence, the child quality is given by:

$$k_{t+1} = \beta_0 \, (s_t \, k_t)^{\beta 1} (K_t)^{\beta 2}$$

where s_t are the resources that the parents invest in their children. This implies that children raised in a qualified ethnic environment will more likely reach higher socio-economic positions, controlling for the parents' skills or human capital.

The amount of resources that the household allocates to the production of children (s_t) is a function of the stock of parental human capital and the ethnic capital (k_t, K_t). Parental human capital represents the budget constraint while the ethnic capital shapes the production function.[23] Therefore there is a positive association between the quality of the children and the ethnic

---

[22] This model assumes a child per household who does not compete for parental resources. This assumption can be relaxed using Becker and Lewis' (1973) interaction between the quantity and quality of children.

[23] In low quality ethnic environments, the amount of effort that the parents have to invest to achieve a certain amount of quality would be greater.

capital. Borjas suggests that the expected skills of the child of the average parent in ethnic group *j* are given by,

$$E(y_{t+1})=(\beta_1 + \beta_2) \; \breve{Y}_t$$

β_1 and β_2 indicate if the ethnic differentials in skills will disappear in the next generation. Thus, $E(y_{t+1})$ is an inverse measure of the rhythm of 'mean convergence' (Borjas, 1995: 373). If $\beta_1+\beta_2< 1$, ethnic differences will converge over time; if >1 ethnic differentials persist. Borjas maintains that when this externality is sufficiently strong, it provokes constraints that are resistant to change and that this happens when there are not constant returns to scale.[24] He has observed a decreasing importance of ethnic capital over time, although it continues to be statistically significant even for third generations.

Discrimination, credit markets, or similar variables can also generate a correlation between the skills of the children and the average skills of parents in the ethnic group (Borjas, 1992a: 145; 1995: 372). Neighbourhood effects are the causal mechanism behind ethnic capital. Residential segregation and the influence of ethnic capital on the process of intergenerational mobility are intimately related, partly because the measure of ethnic capital is a good proxy for the socio-economic background of the neighbourhoods where ethnic minorities concentrate (Borjas, 1995: 366). To test this argument he modifies the model in the following way:

$$Y_{ij}= \delta_1 \, x_{ij} + \delta_2 \, K_j + \Sigma \, \theta \, D_{ij}^{\;k} + \varepsilon_{ij}$$

where Y_{ij} are the skills of the individual *i* from the group *j*. X_{ij} gives the skills of his father. K_j is the average skills of the respondent's parents' generation. $D_{ij}^{\;k}$ is a dummy variable that values one if

---

[24] Or when $(\beta_1 + \beta_2)>1$. Relative big values of β_2 slow down the regression towards the mean in skills across generations.

individual i from the group j lived in the neighbourhood k. This makes a difference between δ_1 / δ_2 and their equivalents in Borjas' original model (1992a), where β_1 and β_2 were obtained without controlling for the particular neighbourhood in which the individual lived. Borjas assumes that the vector θ is exogenous, maintaining it as a constant.

Borjas found that ethnic capital and ethnic spatial segregation are strongly correlated. In the first estimated model, ethnic capital was assumed to be constant across workers. It then summarizes the impact of neighbourhood characteristics, so no effect of ethnicity persists controlling for the characteristic of the neighbourhood. In a second model, Borjas lets the ethnic capital coefficient vary across neighbourhoods. Borjas hypothesizes that ethnicity plays a more important role for those who grew up in highly segregated environments. Co-ethnic segregation represents a more homogeneous set of social resources from the socio-economic and the cultural point of view. This may also explain why ethnic capital is more important for the children of two immigrants than for those of mixed parental couples (Borjas, 1992a: 144). Co-ethnic concentration can have a different impact if it coincides with intra ethnic group contacts. The empirical evidence confirms that ethnicity is a stronger externality for those living or having grown up in ethnic homogeneous environments. But ethnic capital continues to be statistically significant in this second model after controlling for the neighbourhoods' characteristics.

3.3.3. The broader receiving context: The Modes of Incorporation

The modes of incorporation (Portes and Rumbaut, 1990, 1996 and 2001) represent a seductive explanation of ethnic differentials that has much influenced recent theorising on ethnic differentials in attainment, and represents a valuable tool to explain the effect of ethnicity on the wider process of status attainment, with a specific application to the educational attainment of immigrant

children and the descendants of immigrants (Portes and Zhou, 1993). As in other theoretical works from the 1990s, the modes were created to cope with the changes created by the new US immigration policy and the varying ethnic composition of the immigration fluxes to the US. This theory enlarges the list of explanatory levels to include the broader receiving context, government immigration policy. The way in which immigrants are incorporated into a given society is a function of the context in which they are received (effect of different migration policies); the effect of labour market (including the existence of discrimination); and whether the co-ethnic group was organised before their arrival and the average socioeconomic status of the group. To classify the pre-existing ethnic communities in the host countries, the authors distinguish four main types of migrants:

- Labour migrants correspond to popular mainstream stereotypes of economic immigrants and immigration in Western societies.
- Professionals coming from countries in which universities train their students in advanced western practices but where unemployment generates a gap between individual expectations and employment opportunities
- Refugees and asylum seekers
- And entrepreneurial immigrants that invest in self-employment in the host country.

The rate of social mobility differs across groups, as the average socio-economic success of newcomers and future generations is dependent on their pre migration condition. The modes of incorporation suggest that the class destinations of immigrants with similar skill profiles are a function of three factors. (1) Governmental policies for immigration. These can be very varied ranging from open exclusion regarding undocumented immigrants to active encouragement -refugees and asylum seekers-, to passive acceptance. This creates a huge variation in the first instance that rarely disappears. (2) Discrimination also

increases differences across groups. Employers can be neutral towards certain ethnic groups yet they can reject some minorities and promote others. (3) The largest difference across groups is due to the type of ethnic communities and the extent to which they can neutralize discrimination and unwelcoming government policies. Only if all the groups were equally able to cancel out the effect of discrimination, individual level variables could represent a convincing explanation.[25] The process of status attainment is entirely network-driven for immigrants in general and labour immigrants in particular (Portes and Rumbaut, 1996: 86). Pre-established social networks help through credits, employment opportunities and information about the outside world. Thus, kinship is determinant at the beginning of the immigration experience and its effect is long-lasting.

Why are ethnic communities so varied? This is partially explained by the groups' class prevalence. Ethnic assistance comes at the cost of ethnic pressures for conformity through internalised norms, reciprocity, solidarity and the sanctioning capacity of groups. The group class prevalence works as a collective status through social expectations that prevent new comers from showing over ambitious aspirations by imposing the level attained by first movers as the collectively accepted reference point (Portes and Rumbaut, 1996: 87). This is an example of negative social capital (Portes, 1998). Where a working class profile prevails, the internalization of pressures towards conformity produces certain inertia in favour of working class positions.[26]

---

[25] The authors suggest that individual level variables are a sufficient explanation for professional immigrants, whose mobility is determined by their pre-migration skills. In the rest of the cases individual level variables are insufficient.

[26] This is a *conformist model* in contrast to the *status model* (Ackerlof, 1997). In the latter, the individuals in a group are more socially appreciated depending on their level of status attained. In the conformist model the individuals are not looking for the best individual outcome, but for a level that is as close to the mean level attained by the

But, the modes of incorporation used to lack an exhaustive study of ethnic communities. This was tackled in another article by Portes and Sensenbrenner (1993) that explores the concept of embeddedness in the research on immigration. The source of ethnic solidarity that neutralizes discrimination is mainly situational -issued from long-lasting experiences of discrimination. The intensity of the threat depends on cultural or phenotypical differences. But the capacity to activate the community resources depends on the cultural repertoire brought from homeland, including past practises and collective memory. Because this is exogenous, the modes of incorporation draw a cultural argument for explaining post migration differences.

The specific application of the modes of incorporation to the study of education is the 'segmented assimilation' theory, which addresses the issue of second generations (Portes and Zhou, 1993). The argument reformulates the former by theorising about second generations from prior migration waves to the US in which assimilation into American mainstream culture was a prerequisite for social mobility (Child, 1943). As such, the segmented assimilation argument is not an explanation but a post-hoc account of the ethnic differentials in educational attainment. Differences in the assimilation process explain diverging outcomes. The growing acculturation and parallel integration into the white middle class is only one possible model of assimilation. Assimilation into the underclass culture as found in inner cities is a trap to permanent poverty. Finally, the deliberate reservation of the ethnic identity accompanied by ethnic solidarity is the third model. Whether the second generation follows one of these outcomes depends on three factors:

---

group as possible. This way, groups impose specific norms and values that function as stable subcultures, and this differentiates their members from the general population. Fears of negative sanctions due to jealousy and envy are an important reason for conformity as is the desire for positive benefits of friendship.

- The phenotype.
- The concentration of immigrants in the inner cities where not only immigrants, but also natives from the underclass concentrate. This exposes the second generations to the adversarial subculture developed by marginalised native youths to cope with their difficult situation.
- The third dimension is the existence of ladders for intergenerational mobility that assure the viability of the second generations' aspirations.

These three aspects are closely related to the parental mode of incorporation, and to the ethnic resources available at the group level. Regarding the educational attainment of the second generations, Portes and Zhou suggest that community resources not only provide a system of loans and grants, but also a way to reinforce parental authority and to insulate second-generations from the adversarial manners of native or minority youths. Second-generation Haitians show that assimilation into the natives' system of values is not always the path to upward mobility. The reason is that the Little Haiti in Miami is close to Liberty City –the main black area of Miami-, so assimilation occurs into the inner city values, where education is devalued.

In sum, the empirical support for modes of incorporation and segmented assimilation is only partial, normally drawn from qualitative works, in which not enough attention is given to crucial factors such as controls and the endogeneity of the contextual factors. Both assume the existence of social interactions, although the specialized literature on this topic never arrived at an agreement on their existence nor in the method to test their significance. If, as part of the literature suggests, social interactions are at best modest, the applicability of the modes of incorporation and segmented assimilation would be limited.

3.4. Social interactions and peer pressures in the study of ethnic disadvantage

The theory of social interactions explains decisions such as the demand for education, the practise of discrimination, fertility and marrying, the propensity to divorce and other aspects of social life by the combination of individual level and contextual variables (Durlauf and Peyton, 2001). The increasing importance of social interactions in the explanation of ethnic and immigration disadvantage is a partial consequence of the growing attention given to social capital in sociological studies (Portes, 1998). But even if this is a general trend, and for some scholars social interactions are relevant irrespective of the migration or ethnic status, they have a great importance in the immigration literature, because immigrants and ethnic minorities are easily identifiable through racial features, clothes and social practises, and they are believed to benefit from stronger group cohesion.

Since the 1990s, prominent theorists of ethnicity and immigration have highlighted the importance of intra-group contacts (Borjas, 1992a; Portes and Rumbaut, 1996; Portes and Zhou, 1993; Portes and MacLeod, 1996) although few of them have conducted rigorous empirical tests (Borjas, 1995; Portes and Hao, 2005). For Cornell (1996), attachment to ethnicity depends on the existence of shared interests, institutions and culture, and variation along these dimensions has an individual-level effect through interactions. It is for that reason that proving the existence of peer-pressures has a key importance in the study of immigration. Peer-pressures represent an unambiguous micro-mechanism to account for the effect of ethnic segregation and community closure, one of the most vibrant fields of research in the sociology of immigration. Yet, academics in the field do not agree on its empirical relevance, while the *assimilationists* argue that segregation delays upward social mobility, the supporters of

the enclave hypothesis suggest the opposite (Wilson and Portes, 1980).[27]

Ever since the 1970s, the common wisdom has been that living in deprived social environments makes it more difficult to escape from deprivation. Consequently, de-segregating deprived neighbourhoods and schools, especially if in combination with racial or ethnic concentrations, has been a broad trend (Brown, 2000). Nonetheless, the sociological literature on this topic remains unclear and its conclusions are far from being undisputed (Sampson *et al*., 2002). Jencks and Mayer (1990) argue that there are four main schools of thought regarding neighbourhood effects: (1) disadvantaged neighbours are a disadvantage -the contagion model of social interactions or the enforcement of norms through social control-, (2) advantaged neighbours are a disadvantage -if living with privileged neighbours creates resentment-, (3) disadvantaged neighbours are irrelevant -if individuals base their decisions on their own circumstances- and (4) neighbours do not matter but neighbourhoods, through institutions and different resources do.

The effect of micro-level contacts between individuals is an ever-growing field of research both for sociologists and economists. This literature is based on the distinction between standard economic and social decisions (Ackerlof, 1997). Standard economic decisions are explained by individual level factors while social ones also consider the broader context in which individuals live.

The sociological literature on *neighbourhood effects* estimates the impact of the social environment on several indicators of status attainment (Brooks-Gunn *et al*., 1993; Portes and Hao, 2005; Zietz and Joshi, 2005), sexual behaviour (South and Crowder, 1999) or criminality (Ludwig *et al*., 2001). In spite of the centrality of this

---

[27] Enclaves shelter co-ethnics providing opportunities that are not accessible in the wider society. The effect of ethnic social capital has been extensively investigated in the US but not so much in European sociology.

debate, researchers have been unable to come to a consensus on whether neighbourhood effects really matter. Some authors argue that contextual effects are more important in explaining criminality, sexual behaviour and health status than educational attainment (see Sampson *et al.*, 2002 for a complete review). Ginther el al. (2000) reviewed several empirical works on the effect of neighbourhood composition over educational attainment-related variables -years of completed schooling, probability of dropping out of high school and high school graduation, IQ at ages three and five, cognitive functioning at age five to six, achievement of any post-secondary education, years of college attended and years of college planned. The authors conclude that certain neighbourhood characteristics (particularly the presence of affluent families) are positively associated with youth attainment but also that the statistical importance of contextual variables in multivariate analyses depends on the model specification and decreases greatly after controlling for individual and family level effects. Other authors suggest that critics ignore the epidemic nature -non-linearity- of neighbourhood characteristics (Crane, 1991).

The sociology of social interactions refers to a plethora of elusive concepts such as social capital, social norms or contagion but it is not a systematic body of knowledge, whereas the broader view of economics more systematically shows how social interactions reflect the diverging incentives that affect the allocation of resources (Manski, 2000: 115).[28] Recent economic models of social dynamics explain how the interdependence of individuals affects individual behaviour. In these models, the payoff received from a particular action is made up of an

---

[28] The narrower view is concerned with the strict study of markets. For Manski, the development of microeconomics (especially non-cooperative game theory), the framing of individual decisions in the context of families or households and the emergence of the macroeconomic endogenous growth theory has widened the scope of economics to this field of research.

exogenous component that represents the influence of individual characteristics, and a random one that results from the observation of the aggregate behaviour of the reference group or what the peers do under identical situations. This second component of the payoffs varies depending on the number of individuals that behave similarly (Durlauf and Peyton, 2001), and so payoffs and costs are group-specific. If this is correct, arguments such as the culture of poverty and theories of ethnicity that speak about the detrimental influence of certain group sub-cultures, will be discredited.[29]

The idea that the concentration of ethnic minorities constrains educational attainment was first highlighted by the 'Coleman Report' (Coleman *et al*., 1966), which suggested that individual attainment is influenced by the average achievement of the student-body in the school. The report also documented a substantial racial segregation in American schools, and concluded that the minority's achievement improved in ethnically integrated schools. This caused huge alarm in the American society and encouraged the idea that schools should have a racially mixed class of students through for example bussing policies to avoid discrimination and ethnic stratification. Academically, it inaugurated an ever-increasing literature, part of which was critical with this finding (Jencks *et al*., 1972), and an intense debate over school effects on achievement.

Regarding the educational attainment of immigrants and ethnic minorities, the effect of certain ethnic structures such as ethnic social capital is not clear. For Rumbaut (1977) extended family solidarity reinforces normative behaviours and expectations among embedded individuals and is negatively associated with educational success. Hout (1986) suggests that chances for upward mobility are boosted by a large and segregated ethnic community. Interactions are important both for first-immigrants and second

---

[29] Only when economic incentives are associated with a given behaviour, we find an individually rational behaviour but socially undesirable such as those predicted by cultural arguments (Durlauf and Peyton, 2001: ch. II).

generations because of the importance of social networks among immigrant groups (Portes and Hao, 2005: 12). Many authors have restricted their scope to interactions at the school level: Fekjaer and Birkelund (2007) only found a neutral effect of the ethnic composition on grades and schools careers in Norwegian secondary education; while in Sweden Szulkin and Jonsson (2006) found a minor negative effect on attainment.

In France, the percentage of foreigners at school has been associated to poorer school results (Duru-Bellat *et al.*, 2004: 33-35). Felouzis (2003) measured the concentration of foreigners in secondary schools in the region of Bordeaux, and its impact on the immigrants' educational attainment. He estimated the gap in grades between students in more and less concentrated schools in around 0.4 points -scale ranging from 0 to 20. His index of concentration reveals that 89% of the North Africans, Africans and Turk students and 69% of other immigrants would have to move to another school in order to achieve a homogeneous representation of the ethnic groups across schools. This depicts a highly segregated landscape: 28% of foreign students in Bordeaux attend some 10% of the colleges, where we find 48% of the students from deprived family backgrounds. If we only focus on Africans and Turks, 40% of these students attend 10% of the schools with 53% of the most socially deprived profiles. Thus, if the picture in Bordeaux is representative of what happens in the rest of France, the French school system is significantly segregated by ethnic and social axes especially for the Muslims.

****

This third chapter provides the theoretical anchor for the empirical analyses presented in chapter six, which applies these ethnic explanations to the significant immigrant effects found in those indicators of educational attainment that will remain unexplained by social origin.

Details about the operationalization of ethnicity are provided in the next chapter. Precise information about the operationalizations of the ethnic arguments review in the previous pages will be given in the sixth chapter. The 1995 Panel of Students has acceptable means to proxy the cultural arguments, the child investment model (number of siblings and mother's labour market participation), the ethnic capital (using the average level of parental education among co-ethnics) and the modes of incorporation (using the parental date of arrival as a benchmark to measure the immigration policy in place). Sadly, it does not include measures of school discrimination. It is for that reason that chapter six will include a study of the effect of harassment from teachers and other students on immigrants' school attainment using a secondary source of data.

As I did in this chapter, chapter six will explore the impact of social interactions on educational attainment. The study of social interactions is not only relevant to researchers on immigrant and ethnic disadvantage. However the importance of these arguments in the immigration literature seems to recommend taking a careful look at it to complement an ethnic explanation. These analyses will focus on the impact of the concentration of foreigners in schools.

CHAPTER 4. BASES FOR THE EMPIRICAL ANALYSES

This chapter provides the reader with key information to follow the empirical analyses that will be presented in the second part of the thesis (chapters five to seven). It first describes the survey studies used in the analyses. Secondly it presents the relevant immigration and ethnic categories and their exact empirical operationalization. The final sections describe the French school system and the characteristics of the indicators of educational attainment (dependent variables) that will be used to measure the immigrant effect.

4.1. The Data

Two different datasets have been selected for the empirical analysis. The most important is the 1995 *Panel d'Élèves du Second Degré*, a powerful instrument for the study of educational inequalities. This panel study presents several important advantages for the study that I have conducted, including large sample sizes and a rich range of indicators of educational attainment including different measures of school performance – longitudinal information on grades- and educational careers. Despite the availability of such detailed information on attainment, it does not include appropriate indicators for the test of all the relevant theories that have been reviewed in the previous two

chapters. It is for this reason that, selected analyses will be conducted using the 1992 Survey on the *Efforts d'Éducation des Familles*. This dataset will be used to present some auxiliary analyses of financial constraints and cultural deprivation on attainment (chapter five) as well as the main empirical tests on the impact of school harassment (chapter six). The following sections describe the technical details and the structure of these two datasets.

4.1.1. The 1995-2001 Panel of Students of Secondary Education

The *Panel d'Élèves du Second Degré (1995-2001)* sampled a cohort of 18,730 students that reached lower secondary school in 1995. To the best of my knowledge, the panel –from now on, Panel-95- is one of the most powerful tools for the study of the immigration disadvantage in educational attainment in Europe. It follows a long series of survey studies produced by the French Ministry of National Education to follow a cohort of students joining the *collège* (1978, 1980 and 1989), which prompted the appearance of a growing literature on class differentials in educational attainment in France, part of which has focused on the educational attainment of immigrant students. Happily, this new edition of the French panel overcomes the serious conceptual difficulties in its previous versions to identify the immigrants and their descendants through country of birth.

As mentioned above, the panel provides interesting dependent variables, including retrospective measures of enrolment and school performance before secondary schooling; grades at different moments of time, and school careers in upper secondary education (details are given in the next chapter). As for the interesting independent variables, the panel has a number of proxies of social origin, such as the head of the household's occupation, proxies of financial resources at household level, consumption of high-brow activities and parental education. It also

offers a modest way to model educational expectations. All these variables will be the object of empirical tests in chapter five. The panel also eases the study of certain ethnic explanations reviewed in the previous chapter, including country of birth, language spoken at home; number of siblings, female labour market participation, year of arrival in France, and percentage of foreigners at the school where the student is enrolled, but it lacks instruments for the study of discrimination or school harassment.

The Panel-95 has a standard sampling design, however attrition is considerable. The information was collected from different actors including the heads of the schools and direct interviews conducted with the families at different stages of their educational careers.

- The *questionnaire de recrutement* was completed in 1995 using administrative files. It includes basic demographic information such as sex, place and date of birth, nationality, etc.
- A number of follow-up-questionnaires collected yearly information academic progress and school careers –*suivi de la scolarité de l'élève*. The last questionnaire was distributed in 2001, when the cohort finished upper secondary.
- In 1998 the *questionnaire famille* was distributed to dig out more information about the students' family entourage. It was only answered by 15,290 families. In addition, a specific part of this last questionnaire was required to be returned by post and only 12,981 respondents sent it back.[1]
- At the end of lower secondary schooling (3$^{\text{éme}}$) the head of the schools filled in another questionnaire with detailed information about grades (*brevet des collèges*) and the result of the selective process that

---

[1] The information about students' performance prior to secondary education is retrospective. It was drawn from the recruitment (1995) and the family (1998) questionnaires.

> links lower and upper secondary schooling (*procedure d'orientation*).

Regrettably this complex sampling design, plus the poor rate of response collected from the family questionnaire, creates some difficulties.

Table 4.1. Rate of answers in the Panel-95

Name of the questionnaire	N	Rate of answers
Recruitment Questionnaire	17,830	100%
Follow up 1995-1996 (6$^{\text{ème}}$)	17,830	100%
1996-1997 (5$^{\text{ème}}$)	17,748	99.5%
1997-1998 (4$^{\text{ème}}$)	17,537	98.3%
1998-1999 (3$^{\text{ème}}$)	17,336	97.2%
1999-2000 (2$^{\text{nde}}$)	16,761	94%
2000-2001 (*Terminale*)	14,653	82.2%
Questionnaire end of 3$^{\text{ème}}$ (1999, 2000 or 2001)[2]	15,159	85%
Family Questionnaire (1998):Direct interviews	15,290	85.7%
Postal sample	12,981	72.8%

The Panel-95 includes appropriate two weights to mitigate the effect of attrition from the family questionnaire (pond1 and pond2). In order to measure the impact of attrition, the tables that will present the results of the statistical models allow the comparison of each of the estimates using different sample sizes. As a result, the reader will be able to distinguish the variation

---

[2] This questionnaire was only collected for the students in 3$^{\text{ème}}$. Logically, if the student repeated, the questionnaire was only filled when he reached 3$^{\text{ème}}$.

caused by the loss of cases from the effect of introducing a new independent variable.

A final limitation is that the Panel-95 restricts the use of some sophisticated longitudinal techniques of estimation. Although it provides dynamic information about the students' progress, the most important socio-demographic independent variables were registered only once ignoring variation over time. In spite of this difficulty, it is possible to present a more modest dynamic study of the students' evolution throughout secondary schooling.

4.1.2. The 1992 Survey Efforts d'Éducation des Familles

This dataset helps to overcome the limitations imposed by the existence of problematic indicators for certain key independent variables. However it lacks unambiguous measures of other relevant mediating factors that could explain educational attainment in the Panel-95. To begin with, the Panel does not include a measure of income per household in French Francs, but only has a subjective estimation given by the head of the household about the sufficiency of the financial resources available for the student to continue studying for as long as s/he wants to. With respect to cultural capital, the panel has information about the parent's education and the student's consumption of cultural activities (but not the parent's). Finally, it lacks any information about school harassment and the relationship between students and their teachers. Some of these problems can be solved using the 1992 *Enquête sur les Efforts d'Education des Familles* –from now on, Efforst92. This is a cross-sectional dataset carried out by the INSEE -*Institut National de la Statistique et des Etudes Economiques*- to study the differences in the way French families pay for the costs of education. Unfortunately, in exchange for its conceptual richness, this dataset lacks refined dependent variables. Effort92 sampled 5,266 households with at least one of its members enrolled in

some type of formal education. The sample includes students whose ages range from 2 to 25 years.

Efforts92 is also divided into separate files namely one for the parents and three more for students in *collège* –lower secondary -, *lycée* –upper secondary- and those in further stages of the educational system. Given that the samples are smaller in the students' questionnaires than in the parental one, I shall, predominantly, use information from the latter questionnaire. Yet, the lower and upper secondary schooling samples will be merged for some auxiliary analyses in chapter six.

4.2. Categories for this study

The thesis aims to measure and explain the immigrant effect, understood as the significant differential in the educational attainment of the children of immigrant and native families. As outlined in the introduction, the empirical analyses will be presented in two blocks. The first of them (chapter five) will adopt a social origin strategy, which assumes that social origin-related factors can account for the significant variation existing in the educational performance of immigrants and natives. The second block (chapter six) complements this approach with a focus on ethnicity and ethnic group membership to explain the remaining significant differentials in educational attainment. This section presents the immigration and ethnic categories that will be used throughout the empirical analysis.

The proper identification of the students' and the parents' migration and ethnic status is one of the most important novelties of the 1995 Panel as compared with its previous editions. Yet, it is important to bear in mind that parental country is not a fully reliable indicator of ethnic origin because of the post-colonial nature of many immigration inflows heading to France (Silberman, *et al*. 2007: 6-7). It is for that reason that individuals whose parents were born in the colonies may have French origins,

such as the *pieds noirs* –literally the 'black feet', the Algeria-born children of the French colonizers. There are no instruments available in the Panel-95 to identify this population. Furthermore, very few French datasets can do so.[3]

4.2.1. The migration status

The students' migration status is determined according to the country of birth –the children of French-born families, first and second generation (or natives from foreign-born parental couples with a foreign ancestry) immigrants- and their type of parental couple -mixed or exclusively immigrant. Because of data constraints I decided to classify as natives those children coming from French-born families –when both the father and the mother were born in France. This hinders the identification of third generation immigrants (students with a foreign ancestry that are the grandsons of foreign-born individuals). Nonetheless, this is not as problematic for France (Silberman, *et al*., 2007: 6-8) or for the rest of Western Europe as it could be for non-European longstanding immigration countries such as Australia, Canada, the United States or New Zealand among others.[4] Thus, **French** are natives whose father and mother were already born in France. First generation immigrant students from mixed parental couples –**first-mixed**– are children born abroad from a parental couple formed by an immigrant and a French-born. First-generation immigrant students from immigrant parental couples are students who were not born in France, from foreign-born parental couples –**first-**

---

[3] Among them, the rich and complete Génération 98 conducted by the CEREQ (*Centre d'études et de recherches sur les qualifications*).
[4] Third generation immigrants do not represent a large percentage. Many of them would be descendants of Italians and Spaniards that escaped from the fascist regime that followed the Spanish Civil War (1936-1939).

immigrant.[5] The same protocol was used to construct the **second-mixed** and **second-immigrant** categories for the case of French-born children with foreign-born parents.[6] To sum up, with the only exception of the French, the rest of the categories refer to the children of immigrants (foreign-born) parents, distinguishing if the student was born in France or abroad.

Distinguishing between first and second-generation immigrants and those coming from exclusively immigrant or mixed parental couples is a widespread practise in the specialised literature on immigration and educational attainment (Chiswick and DebBurman, 2004). With respect to the generation effect, being born in the host country may have a beneficial effect because the individual is early socialised in their place of residence so his or her country-specific investments in human capital are French-based from the very beginning of their life. This is why depending on their age at migration first-movers may suffer the complicated transferability of at least part of their human capital (Freidberg, 2000; Chiswick, 1988). For obvious reasons, this problem can be different across immigration categories. For example, Chiswick, *et al*. (2003) showed that human capital is less transferable for highly educated workers than for low skilled ones. Similarities between the country's of origin and the host country's labour market ease the transferability of

---

[5] France is the third country in the world with most foreign students (some 50.000 new students per year). After the riots in the major French metropolitan areas at the end of 2005, there are new plans to change the selection of foreign students. This will be undertaken at place of origin by the Centres for the Study of France, which already exist in countries such as China, Senegal or Vietnam (*Le Monde*, 30th November 2005).

[6] The appendix includes a dictionary of variables with details about codification and distribution of the variables used in the empirical analyses (A.1.1 and A.1.2).

The convention used throughout the text for the presentation of the variables is as follows: new variables are presented in **bold**. Further references to a given variable are in *italics*.

human capital across state borders. Besides, the difference between first and second generations is also pertinent since some authors suggest that the concerns and aspirations of the first generations are normally linked to the country of origin, while second generations have less involvement with the family's homeland (Portes and Hao, 2005: 9).

The distinction between the children of mixed and exclusively immigrant parental couples is important because the role of immigrant families as agents of primary socialization is shaped by the lack of detailed knowledge about the receiving context. Logically this is less important if at least one of the parents is French-born. Apart from a deeper country-of-residence specific knowledge, there is another possible beneficial effect of being born in a mixed family: the positive self-selection of those individuals with no prejudices to break the trend towards intra-group marriage which is something that is highly determined by previous educational attainment (González Ferrer, 2006).[7] Mixed parental couples are a *link for intense acculturation*, something noticeable in aspects such as religion or language fluency (Tribalat, 1995: 73-89).[8]

The Panel-95 offers acceptable sub-samples for the study of educational differentials across immigration categories. The following table presents the distribution of the immigration groups across the sample sizes available. The loss of cases is fairly homogeneous across migration status. The percentage of the total sample represented by each category scarcely varies with attrition, although immigrants are generally underrepresented in the postal sample of the family questionnaire in comparison with the initial figures in the recruitment sample.

---

[7] The operationalization of *mixed* only captures inter-ethnic marriages between immigrants and French-born. In the sample, other types of inter-ethnic marrying are marginal and will not be considered.

[8] We cannot know whether these are really mixed families or arranged marriages between foreigners and descendants of immigrants from the same ethnic ancestry.

Table 4.2. Size of the immigration groups in the Panel-95

	Recruitment questionnaire	Family questionnaire	Postal questionnaire
First-immigrant	426 (2.6)	297 (2.1)	223 (1.9)
First-mixed	87 (0.5)	65 (0.5)	51 (0.4)
Second-immigrant	1,687 (10.4)	1,338 (9.5)	948 (7.9)
Second-mixed	1,336 (8.2)	1,144 (8.1)	956 (8.0)
French	12,672 (78.2)	11,209 (79.8)	9,761 (81.8)
Total N	16,208	14,053	11,939

Legend: N (%).

In order to avoid complicating the initial small n-problem with attrition, I collapsed the categories of students coming from both types of mixed parental couples. Hence *first-mixed* and *second-mixed* will be substituted by a single dummy called **mixed**. With and without collapsing these two categories, the results of the empirical analyses do not change significantly:

Table 4.3. Immigration categories across sample sizes in the Panel-95

	Recruitment Sample	Family Sample	Postal Sample
First-immigrant	426 (2.6)	297 (2.1)	223 (1.9)
Second-immigrant	1,687 (10.4)	1,338 (9.5)	948 (7.9)
Mixed	1,423 (8.8)	1,209 (8.6)	1,007 (8.4)

Legend: N(%).

Attrition could bias the sample if the non-response is not evenly distributed across individuals. Given that attrition significantly diminishes the sample sizes, the following table registers the distribution of parental education across migration status (mean and standard deviation). **Parental education** is a variable built from the first round of the family questionnaire, so the table can only show the decrease in changing from the general to the postal parts of the family questionnaire. Parental education ranges from 1 (no diploma) to 6 (university).[9]

Table 4.4. The distribution of parental education across migration status in the Panel-95

	Sample 2 (Family questionnaire)	Sample 3 (Postal questionnaire)
Natives	4.31 (1.42)	4.36 (1.41)
First immigrant	3.10 (2.09)	3.27 (2.08)
Second immigrant	2.39 (1.72)	2.54 (1.75)
Mixed	4.43 (1.52)	4.51 (1.46)

Legend: Mean (Std. Dev.).

The reduction of the sample sizes due to attrition in the family questionnaire does not much change the distribution of parental education across the migration categories.

---

[9] (1) No education; (2) CEP [*certificat d'études primaires*]; (3) BEP-C [*brevet elémentaire, brevet des collèges*], (4) CAP [certificate of professional aptitude[/CAPA [agricultural capacitation] and BEP/BEPA [*brevet d'aptitude professionnel*], (5) general baccalaureate [BAC], technological BAC and professional/technical or another type of brevet and the capacitating diploma in Law- (6) University degree -1st, 2nd and 3rd cycle-. The non-response values are treated as lost cases.

Table 4.5. Immigration categories in the Efforts92

	Parents' questionnaire	Collège+lycée sample
French	4,297	1,564
	(80.5)	(80.4)
First-immigrant	91	40
	(1.7)	(2.1)
Mixed	482	158
	(9.0)	(8.6)
Second-immigrant	465	173
	(8.7)	(8.9)
Total N	5,335	1,935

Source: Efforts92.
Legend: N(%).

Table 4.5 shows the size of the migration subsamples in the Efforts92 survey, which are logically smaller but nevertheless sufficient to conduct some auxiliary analyses. The table classifies the students according to their immigration status using, as before, the following categories: first and second immigrant, mixed and natives.

A short comment on the nominal convention that I use to name the immigration categories is now required. The labels used in this section –first and second generation immigrants- is common in the US, and increasingly reproduced among European scholars (Silberman, *et al*. 2007). In this thesis, it maintains a certain coherence since, even if access to the French nationality/citizenship is ruled by the *jus soli*, the acquisition of this condition is not automatic and only happens at the age of 18 (Weil, 2002). Yet, it is important to acknowledge that France has witnessed an intense debate on the issue of naming and categorising immigrants and their descendants in scientific research and official documents (Leridon, 1999). The High Council for Integration (HCI) refused referring to citizenship as a

valid criterion because of its legal implications, the existence of double nationality agreements and because many foreign-born residents in France are naturalized French citizens. The HCI has also rejected the broader use of immigrants in spite of its flexibility to include the descendants of first-movers, that is to say, what is commonly referred to as second and third generations. Instead, the Council (1993: 27-8) proposed the labelling system adopted by Michelle Tribalat (1991), who refers to immigrants as individuals with a foreign ancestry (*personnes d'origine étranger*). This nomenclature can include temporary and settled immigrants, second and third generations.

Notwithstanding these considerations, I will use the labels presented in the previous tables throughout the thesis so as to provide a dynamic presentation of the empirical analyses. Of course, this does not have any normative implication. I understand that first generation immigrant students are children who were born abroad and came to France before the beginning of lower secondary schooling.[10] Second generations refer to French-born students whose parents were not born in France and are assumed to share a foreign ancestry. Any further mention of first or second-generation immigrant student should be understood in these terms. Finally, it is clear that native students are French-born children from French-born parents. A similar protocol is used in Felouzis *et al*. (2005: 22) who distinguish between *allochthones* –who have a migrant ancestry- and *autochthones* (<<[…] those that come from the land where they live and are known for not descending from migration paths>>; quotation from Le Robert).

4.2.2. Ethnicity

In accordance with traditional practise in the empirical

---

[10] In the specialized literature, immigrant children are also frequently called intermediate or 1,5 generations since they were not born in France, but arrived in the host society being kids.

literature, I use country of birth rather than nationality for the operationalization of ethnicity.[11] The immigrant population settled in France comes from a wide range of national backgrounds (see graph 1.2) and the larger groups are well represented in both datasets.

With the simple intention of enlarging the subsamples of ethnics, my operationalization of ethnicity collapses the father and mother's country of birth giving preference to the father's national background –unless it is the mother who was born abroad and the father who is French-born. This is a relatively common practise in those studies of ethnic inequality that consider the mixed nature of parental couples (Borjas, 1995: 367). The preference for the father's ascription assumes that his national background has a deeper effect because of the masculine pre-eminence inherent to many cultural traditions. The convention adopted in this thesis also seems to be appropriate because of the low number of cases in certain ethnic categories that will be included in the analyses.

In the Panel-95, the percentage of ethnics decreases with attrition. As a result some of the models presented in chapter six present extremely large standard errors.

---

[11] Naturalization is a widespread practise among immigrants in advanced democracies, so citizenship under-represents ethnic minorities. For more about the operationalization of ethnicity in the French sociological research see Leridon (1999).

Table 4.6. Ethnic groups across sample sizes in the Panel-95

	Recruitment sample	Family sample	Postal sample
African	274 (1.7)	190 (1.4)	176 (1.4)
Algerian	852 (5.4)	679 (5.0)	527 (4.5)
Indochinese	154 (0.9)	128 (0.9)	81 (0.7)
Italian	124 (0.7)	110 (0.7)	95 (0.8)
Moroccan	644 (4.1)	505 (3.7)	382 (3.3)
Northern	123 (0.8)	110 (0.8)	98 (0.8)
Portuguese	409 (2.6)	318 (2.3)	235 (2.0)
Spanish	164 (1.0)	145 (1.1)	114 (1.0)
Tunisian	251 (1.6)	196 (1.4)	136 (1.2)
Turkish	135 (0.9)	112 (0.8)	65 (0.6)
Total	15,780	13,685	11,635

Legend: N(%).

Table 4.7. Ethnics across sample sizes in Efforts92

	Parents' questionnaire	College+Lycee
African	78 (1.5)	25 (1.3)
Algerian	262 (5.0)	103 (5.3)
Indochinese	48 (0.9)	18 (0.9)
Italian	93 (1.8)	45 (2.3)
Moroccan	178 (3.4)	56 (2.9)
Northern	79 (1.5)	27 (1.4)
Portuguese	179 (3.4)	80 (4.1)
Spanish	108 (2.1)	42 (2.2)
Tunisian	74 (1.4)	20 (1.0)
Turkish	30 (0.6)	10 (0.5)
	5,264	1934

Legend: N(%).

For that reason I anticipate that these models were also run using a collapsed recodification of the nationalities into broader geographical categories with no major changes in the estimates obtained from the multivariate analysis.[12] However, I preferred to keep a large list of ethnic origins so as to test the impact of ethnic-specific explanations.

---

[12] Southern Europeans (Italians, Portuguese and Spanish) and Maghrebi (Algerians, Moroccans and Tunisians). The rest of the ethnic categories were excluded from this analysis. Kao and Thompson (2005: 432) argue against using large panethnic labels because it hides the great diversity of social class differences by ethnic groups.

As with the presentation of the migration categories above, the following table presents the distribution of parental education across ethnic groups in order to quantify the impact of attrition.

Table 4.8. Parental education across ethnic groups in the Panel-95

	Family questionnaire 1 (direct interviews)	Family questionnaire 2 (Postal sample)
Algerian	3.28 (1.90)	3.47 (1.89)
Moroccan	2.57 (1.87)	2.68 (1.91)
African	3.16 (2.08)	3.31 (2.07)
Tunisian	3.40 (1.91)	3.80 (1.81)
Spanish	3.79 (1.62)	3.96 (1.64)
Portuguese	2.76 (1.55)	2.98 (1.54)
Italian	4.03 (1.43)	4.07 (1.37)
Northern	5.17 (1.21)	5.22 (1.12)
Indochinese	3.01 (2.00)	3.01 (1.98)
Turkish	1.83 (1.32)	1.98 (1.36)

Legend: Mean (std. dev.).

Mixing the father's and the mother's place of birth ignores certain factors such as the unequal propensity to intra-group marrying across certain groups (see table 4.9). With the single exception of the Portuguese immigrants it is known that culturally

distant groups from the natives are more likely to marry within their group (Tribalat, 1995: 67-76). Other groups such as the Algerians are known to be inclined towards intra-group marriage – especially in the case of females- even among second generations (Tribalat, 1995: 31). The strikingly high rate of intra-group marriages in the case of the Turkish is consistent with the MGIS survey, where 98% of Turkish women and 94% of men married intra-group (Tribalat, 1995: 88).

Table 4.9. Percentage of intra-ethnic marriage in the Panel-95

	%
Algeria	64.5
Europe (Western)	22
Indochina	79
Italy	22.4
French	88.6
Morocco	82
Portugal	77.4
Spain	28.4
Sub Saharan Africa	71.1
Tunisia	75
Turkey	97

The groups in the table belong to different migration and cultural arrays. Italians, Portuguese and Spanish arrived well before the rest. The literature suggests the existence of strong handicaps in recent waves of migration in comparison to former inflows, replicating the debate in the American literature on the declining quality of immigrants (Borjas, 1985). In the 1970s, Europe had a similar immigration context to that of the US in the

1960s. With the exception of the Spanish refugees who fled after the Civil War (1936-1939), Southern Europeans moved to France, Germany and Switzerland after the Second World War (1939-1945). These inflows slowed-down in the aftermath of the Oil Crisis (1973) when the European states restricted conditions of access to new immigrants. It then became evident that the stock of foreign workers was resolutely settled and unlikely to return. The rise of unemployment in Western Europe and its histeresis motivated the restriction immigration and nationality Laws.[13] This brief comment outlines the drift that shaped the immigration policies in countries with different immigration and nationality traditions such as the universalistic France and Germany, where the foreign population was symbolically called *gastarbeiter*, literally 'guest/alien workers'.

With the single exception of the Turkish and the southern Europeans, the other ethnic groups included in the tables above belong to former French colonies –Algerians, Cambodians, Laotians, Moroccans, Tunisians, Vietnamese and immigrants from the francophone Black Africa. For that reason it is difficult to determine the chronological beginning of these fluxes, and their migration histories. Broadly speaking, it could be said that these fluxes begun after the independence of their national home states (Alba and Silberman, 2002). Vietnamese immigrants continue to enter France as political refugees. North Africans exercise a significant pressure in Andalusia, the Canary Islands and the Spanish enclaves of Ceuta and Melilla in the North of Africa; and the islands of Sicily and Lampedusa in Italy. These two countries are not always their final destination, and some immigrants proceed towards Belgium, Germany, France, the Netherlands or Portugal, to mention but a few of their foremost destinations.

---

[13] In France, the president Valery Giscard d'Estaing (1894-1982), attempted to organise the forced return of those immigrants that arrived in previous years, in particular the Algerians between 1978 and 1980 (Weil, 1998: 24).

Similarly, immigrants from Black Africa arrive to France, as well as to many European countries, as asylum seekers or plain economic immigrants. Turkish immigrants are also firmly established in France, Germany and the Scandinavian countries and the intensity of the Turkish migratory fluxes is perceived as one of the most difficult challenges of the Turkish candidature to access the European Union.

Finally, the inclusion of immigrants from other Western European countries can help to reveal if ethnic differentials are smaller for immigrants coming from less distant cultural backgrounds. The list of ethnic groups includes a wide range of religious traditions: Turkish, North Africans and some other Africans are overwhelmingly Muslims; Southern European immigrants came from mainly Latin Catholic countries, and Indochinese immigrants are closer to Confucian values. Many other European immigrants come from Christian Protestant traditions. All this variation is an excellent ground for the test of cultural explanations and theories such as the modes of incorporation.[14]

All the statistical models presented in the following chapters are pooled into the reference category the *natives/French* – children from French-born families, i.e. families where both the father and the mother born in France. This is not only the most theoretically appropriate option, but also the mode. In no case does this mean that the educational attainment of the French sub-sample is the ideal benchmark to be ambitioned by other groups. It simply implies that if no further constraints differentiate the attainment of the immigrant and French sub-samples, the immigrant population would behave like the natives, in which case there would be no ethnic or immigration differentials in educational attainment.

---

[14] The appendix (A.10) includes a more detailed but brief description of the group migration histories in France.

4.3. The French educational system

This section describes the French school system and briefly introduces the dependent variables that will be analyzed in the rest of the chapters. The graph below (4.1) describes the French school system step by step, the age at which the cohort reaches each level (if they are not repeating) and the indicators selected to measure the immigrant effect in the empirical part of the thesis. Note that the shaded areas correspond to the segment of compulsory education.

Graph 4.1. The French educational system
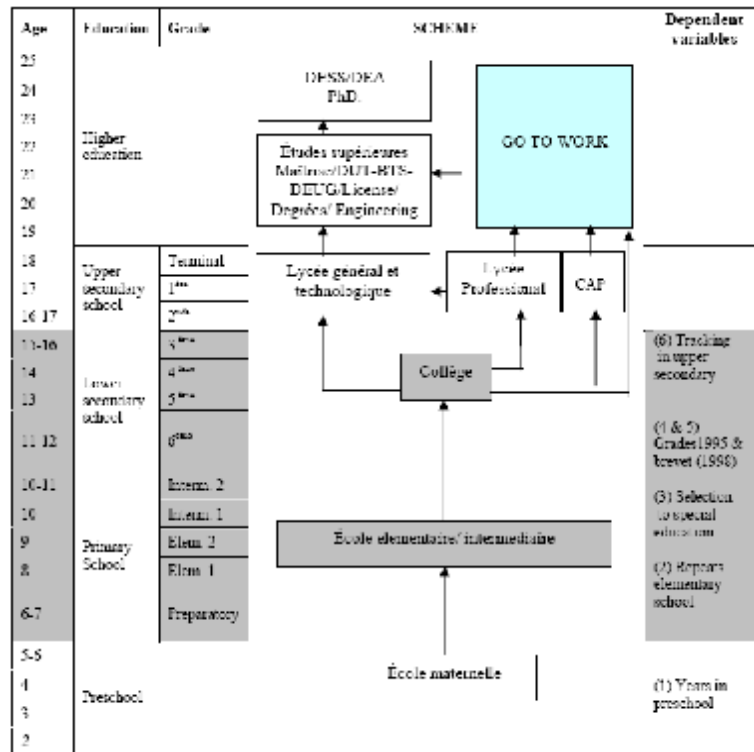
The primary school (*école maternelle*) is not part of compulsory education, but access to the preschool system is standard practise in comparison to other European countries (see section 1.1 in chapter five). Only 1.81% of the students surveyed by the Panel-95 did not attend preschool at age five.

Compulsory education corresponds to elementary (*école élémentaire*) and lower secondary school (*collége*) level. Children from 6 to 11 are enrolled in elementary schooling. Preparatory primary schooling develops linguistic abilities and civic education. The second cycle includes the study of foreign and regional languages, mathematics, arts and physical education. The final cycle adds the study of literature, history and geography to the curriculum along with the experimental sciences and technology.

Lower secondary school (*collège*) hosts students aged 12 to 16, without access examinations. Like in many other European countries, the French National School also experienced a comprehensive reorganization from 1941 to 1975.[15]The reformist endeavour that inspired the beginning of the 5th French Republic also reached the educational system. The package of reforms implemented in the 1960s throughout the presidential mandate of Charles De Gaulle (19890-1970) decisively shaped the current French school (Prost, 1992). All these reforms were inspired by two principles: democratization and selection of the better students.[16] In 1975, lower secondary schooling was unified to provide equal and universal access to secondary education for

---

[15] The 1941 educational reform unexpectedly democratized access to secondary education unified the Superior Professional Schools into *collèges*. It defined a common period of two years ($6^{ème}$ and $5^{ème}$) to select students in upper secondary schooling (Prost 1992: 76). The final measure that homogenized lower secondary education was implemented in 1975 by the former Minister René Haby (1919-2003) ending with the differences between the *collège d'enseignement général* and the *collèges d'enseignement secondaire*.

[16] The end of compulsory education was set at age 16 following the adoption of recommendations from sociological research to postpone the branching points to decrease the effect of family background.

students between 12 and 16 years of age. Although there are special classes for students at risk, the system is comprehensively organised.

- The 6th grade (6ème) deepens the teachings of elementary schooling. In this year, a national examination evaluates the students' level (this is one of the dependent variables used in the empirical analyses).
- The 5th year introduces the study of physics and chemistry, and an optional ancient language (normally Latin); the 4th grade imposes a second foreign or regional language.
- In the 3rd grade the studies pass the *brevet des collèges* national examinations and are tracked to upper secondary education.

The tracking is decided within the so-called *process d'orientation* led by teachers and inspectors in the light of the student's academic performance (grades in the *brevet*) and his or her family's preference.

Comprehensive lower secondary education has not prevented the loss of students moving to apprenticeships after compulsory education, and has not ended the class bias in the sorting of students across the different tracks in upper secondary school (Prost, 1990). Merle (2002) suggests that the study of democratization of access to upper secondary education in France should not focus exclusively on rates of access to non-compulsory schooling but that, as a consequence of the diversification of educational careers, it is also important to look at the differences in the tracks followed by the students. The option is between:

- The *lycée général et technologique*, the most prestigious option which provides general and abstract education. It represents the most straightforward route to university. After two years it opens up the possibility of getting a general or technological baccalaureate.

- The *lycée proffesionel* that after two years provides the *brevet d'études proffesionels* (BEP). Students in this track can proceed to the adaptation course (one year) that bridges the proffesionel and the technical lycée.

- The other vocational credential is the *certificat d'aptitude professionnelle* (C.A.P.), which prepares the student for a specific occupation and is a direct way to join the labour market. This track does not allow the possibility of getting a BAC degree.

The diversification of the BAC –the distinction between the technological and the professional BAC, alongside with the traditional general BAC- was key for the democratization of higher education.

Duru-Bellat and Mingat (1990: 62) estimated that only 65% of students went for the higher or more academic track and that the distribution of socio-economic profiles was not egalitarian.[17] Their data shows that while 89.3% of the students from top executive classes proceeded to the upper track (general), only 54.6% of manual workers did so. Regarding the distribution of immigrants and natives, the authors also showed that 65.1% of the French students went on to the general track (upper one), but only 51.7% of foreigners did so. Duru-Bellat and Kiefer (2000) have argued that while access to 6$^{\text{ème}}$ presents no disadvantage, access to 2$^{\text{nde}}$ remains undemocratic.

The final and most successful route is followed by those who enter university, getting diplomas after two or three years (BTS, DUT, and DEUG) or the qualifications gained in the prestigious *grandes écoles*.

---

[17] In the Panel-95, 62,13% of students went to *séconde général et technologique*. Some 30,20% go to BEP and only 5,47% go to CAP.

4.4. A broad definition of educational attainment

As outlined above, this thesis seeks to reveal the existence of immigrant effects –a significant difference in the performance of the children of immigrant and native families-, in several indicators of educational attainment and whenever this is the case, to explain it. If systematic analyses are able to identify a coherent pattern of immigrant-native differentials, using a broad definition of educational attainment will provide reassuring conclusions.

The panel allows us to conduct a complete and multidimensional approach to the definition of educational attainment. Profiting from this detailed information, the thesis studies several dependent variables selected to cover the complete chronological sequence of French secondary schooling (see graph 4.1). These are the indicators of educational performance that will be used in the forthcoming empirical analyses.

1. Even if the focus of the thesis is on lower secondary schooling, the Panel-95 includes some retrospective information on enrolment and performance before 1995 (preschool and elementary education). The thesis will explore differences between the children of immigrant and native families in the number of years spent in pre-school education and the number of years taken to complete elementary school. This is an imperfect way to measure school performance before the *collège*, but at least these analyses will help to see if the immigrant effect is visible before then. I shall also look at selection for special education at the beginning of lower secondary, which is undertaken on the basis of school performance.

2. An analysis follows that explores differences in the school performance –grades- of students at the time of their entrance into lower secondary school. Grades are known to be highly correlated with test-scores and intelligence and they are also good predictors of school careers, and for some even a predictor of future status

attainment. The panel includes separate information for performance in mathematics and French.

3. Given that the information on the students' grades is longitudinal, a dynamic analysis will reveal if the immigrant effect in school attainment increases or decreases over time. The analyses will explore differences throughout lower secondary schooling (1995-1998/99).

4. The panel also includes information about the tracking of students in different school careers in non-compulsory education. The analyses will both look at the family's explicit preferences and the final decision taken by the class council.

For each of these indicators, the fifth chapter tries to identify an immigrant effect, and whenever this is the case, to explain it using a social origin research strategy. If at the end of this chapter, the differences between the children of immigrant and native families are still statistically significant, the sixth chapter completes the explanation with the ethnic dimension.[18]

---

[18] In those cases where the immigrant effect is not significant, the appendix will include an estimation of the impact of the ethnic categories to confirm that no changes are to be reported.

CHAPTER 5. A SOCIAL ORIGIN STRATEGY ANALYSIS

This chapter seeks to confirm the existence of immigrant effects in the indicators introduced in the previous chapter and develops the first empirical approach to the explanation of differential educational attainment of the children of immigrant and native households. This approach assumes that social origin can by itself explain why the educational attainment of immigrants and natives is dissimilar.

The theoretical anchor of the empirical analyses presented in this chapter comes from the literature review outlined in chapter two. It will be recalled that the sociology of education has given three main blocks of explanations to class differentials in education including material and cultural deprivation as well as the existence of different educational expectations across social groups (tastes and ambitions).

The chapter is organised chronologically so as to cover the complete sequence of French lower secondary schooling (see graph 4.1). It first focuses on the retrospective information available in the Panel-95 regarding preschool and elementary education -the number of years spent in preschool and elementary education, and selection to special education in lower secondary. A cross-sectional analysis follows on the grades obtained in mathematics and French as well as a dynamic exploration of the student's evolution in these two subjects. Finally, the chapter presents a study on the tracking of students in upper secondary schooling. Only in the case of those indicators where the

immigrant effect is statistically significant, will the chapter test the theoretical explanations that were reviewed in the second chapter.

5.1. When does the gap begin? Differentials before secondary schooling

Although the French specialized literature generally indicates that the immigrant effect appears in secondary school (Vallet and Caille, 1996 and 1999) it is important to confirm whether or not the children of immigrant and native families are already disadvantaged before then. In France, primary school has been universal and compulsory since 1881 for students aged 6 to 13 (16 from 1959). Unfortunately, the Panel-95 only offers limited retrospective data for the study of attainment before secondary education. This information does not include objective measurements of academic performance or grades, which could be an appropriate predictor of future success in secondary education. There are three appropriate alternatives:

- The number of years in preschool education.
- The number of years spent in elementary education.
- Being grouped in special education for students at risk – SES; *Section d'Education Spécialisée*- at the beginning of secondary education.

The combination of these three dependent variables offers a complete overview of what happened before the *collège*.

5.1.1. Number of years in preschool education

Studies of social mobility have suggested that early childhood learning institutions and preschool education play a central role in long-term educational prospects (Currie, 2001; Waldvogel, 2002). Preschool education refers to part-day programs with an educational orientation for children aged three and older

(Boocock, 1995: 97). Early childhood intervention programs are thought to have a number of positive effects in the short/medium terms ranging from higher scores in cognitive tests, improving school achievement -as measured by higher IQ scores-, higher grades in general tests, fewer enrolments in special education and reducing the likelihood of repeating, to the higher probability of graduating from high school. Furthermore, some scholars suggest that preschool education also has long-term effects such as higher rates of employment and income, less criminality, etc (Waldvogel, 2002).[1] Accordingly some argue that preschool education and early childhood intervention are the most efficient and effective way to reduce socio-economic inequalities (Currie, 2001). Additionally, many studies on this topic suggest that these programs are more beneficial for students at risk of failure and children from low-income families than for those coming from advantaged backgrounds. For instance, Esping-Andersen and Mestres (2001) have shown that the universalization of preschool education -day care or preschools- softened class differentials in education in Denmark and Sweden -although, strikingly, not in Norway. Kindergartens and other extra curricular activities stimulate cognitive abilities and compensate for poor cultural capital transmission in deprived socio-economic contexts.

Access to preschool education in France is widely available in comparison to other European countries. The *écoles maternelles* are state-funded and publicly-run preschools available at no cost. Almost 100% of the students in the Panel-95 sample above the age of three attended public or private preschools. This only happens in Belgium and Scandinavia. In sharp contrast only 65-70% of the Germans, 44% of the British, 28% of the Spanish and the Portuguese, and only 3% among the Swiss children had access to public preschool institutions (Boocock, 1995). Although school attendance in France is not compulsory until the age of six, the provision of preschool education has been seen as a duty of the

---

[1] Seemingly, the positive effects of preschool education and early childhood intervention decrease over time (Boocock, 1995: 96).

State since the times of the Third Republic (1870-1944) and this practise was widely extended in the 1970s and 1980s. The democratization of access to preschool education is recognized in the French Selection to Education Act which assures preferential access to preschool education for those children coming from the most socio-economically deprived areas.

> "Priority is given to students from the schools placed in socially disadvantaged areas, be it in the urban or the rural or mountainous regions, or in the DOM-TOM" [article L.113-1].

In France, several scholars (McMahan, 1992; Duru-Bellat, 2002) have confirmed the positive effects of enrolment in preschool, especially for students from deprived family contexts. Attending one year of preschool education is associated with a reduction of around 24% of the gap in grades in primary school between the most deprived profiles and the most advantaged ones, and it drops a further 30% for those who attended three years (McMahan, 1992).

Preschool is a continuous variable that ranges from 0 -when the student did not attend any preschool education- to four, depending on the number of years of enrolment in preschool education.

Table 5.1 suggests that attending at least three years of preschool school is the general formula among both the children of French-born families and the French-born children of immigrants, independently of the type of parental couples. The information for the first generations is not easily interpretable. In some cases, students could have arrived after the age of 6, so preschool education was not an option. *First-mixed* and *second-mixed* are not collapsed here in order to consider this logic.

Table 5.1. Crosstabs. Years in preschool education by migration status

Yrs in preschool	French	1st mixed	1st imm	2nd mixed	2nd imm	Total
Did not go	0.8	14.9	22.1	0.3	0.9	167
1 yr / less	1.6	5.0	12.5	2.2	1.6	254
2 yrs	10.9	33.3	15.7	8.6	7.6	1,452
3 yrs	62.1	36.5	36.4	64.5	65.4	8,515
4 yrs +	24.7	11.1	13.21	24.4	24.6	3,351
Total	100% 10,996	100% 63	100% 280	100% 1,115	100% 1,285	13,739

Legend: Column percentages.
Pearson's Chi^2: 147944,5* Cramer's V: 0.16.

A multivariate analysis confirms that these differences disappear controlling for the students' date of arrival in France. Table 5.2 presents the results of an ordinal logit regression of the number of years in preschool on the immigration categories.[2] The results are presented stepwise. First, only the immigration categories are specified and secondly the model is complemented by time spent since the student's arrival (**student arrival** values 0 for the students born in France).[3]

---

[2] The results of this model remain stable controlling for the head of the household's occupation, parental education and female labour market participation.

[3] The models are weighted using the STATA 9.0 version's sampling weights -*pweight*. This command is used when the sampling design results in different probabilities of being sampled for some cases. What sampling weights in STATA do is weighting the number of subjects in the full population that have a given probability of being included in the available sample (STATA User's Guide 23.13.3). A further point must be raised: estimation with sampling weights gives robust variance estimates, so the standard errors in models estimated using *pweights* are robust (weighted). STATA assumes a non-random sampling process in

Table 5.2. Ordinal logit. Years in preschool education

		M1	M2
Migrant status (ref. native)	First immigrant	-2.26***	0.14
		(0.19)	(0.26)
	First mixed	-1.95***	0.26
		(0.34)	(0.37)
	Second immigrant	0.08	0.07
		(0.06)	(0.06)
	Second mixed	0.05	0.05
		(0.06)	(0.06)
Cut points	Cut 1	-4.50***	-4.61***
		(0.07)	(0.08)
	Cut 2	-3.52***	-3.59***
		(0.05)	(0.05)
	Cut 3	-1.89***	-1.91***
		(0.03)	(0.03)
	Cut 4	1.12***	1.11***
		(0.02)	(0.02)
Student arrival			-0.81***
			(0.06)
N		13,720	13,720
Chi^2		170.35***	283.61***
Pseudo R^2		0.01	0.02

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

the production of the data (in this case due to the systematic loss of cases in the sampling process).

As expected, the first model (M1) indicates that the estimate for foreign-born students from non-mixed parental couples, and the mixed one –part of whom are also foreign born- are significantly negative, which means that they are less likely to attend more years of preschool education than the natives.[4] There are no significant differences between the French-born children of foreign-born parents and the native category. Note that this coefficient is close to zero. The significant differences disappear controlling for the student's year of arrival (M2). This coefficient indicates that the more time passed since the child's arrival, the more likely s/he is to attend preschool education. To put it in other words, immigrant families seem to converge rapidly with natives in access to the preschool system. In this second model, all the migrants' coefficients are almost equal to zero.

5.1.2. Likelihood of repeating in elementary school

Elementary education is universal and compulsory from the age of six and covers the basics of algebra and language skills. In France, Duru-Bellat (2002) has found that inequalities in education arise at the beginning of elementary school. But the children of immigrant parents are more likely to encounter difficulties at this stage in comparison to those from French-born families from a similar socio-economic origin. As a consequence, they arrive to lower secondary schooling with an age of entry that on average is higher than that of their native schoolmates.

The Panel-95 also allows testing if the immigrant students and the children of immigrants spend more years in elementary schooling than the children of French-born families. The French

---

[4] We cannot know if the models respect with the parallel lines assumption. Sampling weighting in STATA does not allow Brant's tests. An unweighted model was run where the Brant test was significant -the parallel line assumption was violated. A multinomial probit then checked for changes in the values or the level of significance of the variables included in the model. No major differences are to be reported.

school system offers the possibility of repeating courses to those students who do not reach a certain level of attainment. Thus, the main reason to repeat a school year is poor academic performance. Given the absence of information on grades prior to secondary schooling, the following analyses will only help to see if immigrant students (and the children of immigrant families) reach lower secondary schooling after having spent more years in elementary school, but we cannot provide an exhaustive analysis of why this could be the case.

Years-elementary has a value of 1 when the student completed at least one year, and it was set equal to 0 otherwise. Because of the distribution of the number of repetitions in elementary, the dependent variable was recoded into a dummy.[5] Some 2,213 students repeated at least one year.[6] Initially, the odds indicate that immigrant students are more likely to spend at least one year more in elementary school than those coming from French-born families.

Table 5.3. Repeating elementary

	Odds
French	0.18
Mixed	0.25
First-immigrant	0.38
Second-immigrant	0.40

Logistic regressions are used to measure the net impact of the migrant status on repeating elementary education. The first model

---

[5] An ordinal model was rejected because of the low number of students that repeated more than one year: 176 did it twice (1.09%), 4 students repeated three years (0.02%) and only 2 repeated more.

[6] This represents 17.66% of the valid answers to the postal family questionnaire.

(M1) presents the uncontrolled effect of migration status. The second model (M2) controls for the student's time of arrival to France and the number of years that s/he attended preschool education. These factors could explain any disadvantage associated with being born abroad. Besides, attendance in preschool education can have a positive impact for students irrespective of their migrant status. As was said in the previous subsection, some authors identified medium-term beneficial effects of preschool schooling on the opportunities of students for further education. The third model (M3) adds three new controls that are the best available proxies of academic performance in elementary school (**adaptation**, **help** and **level**). *Adaptation* and *help* are the mechanisms for regrouping students at risk throughout elementary education. *Adaptation* (*regroupement d'adaptation*) is a dummy variable which corresponds with being enrolled in groups that provide support to failing students. Additional support for these students is also given by the so-called *Réseaux d'Aide et de Soutien à l'Élève en Difficulté* (RASED) – *help* is also a dichotomous variable. Immigrant students are more likely to be grouped in these special sections. In the Panel-95, only 1.6% (262) of all students attended adaptation groups, 109 of which (42,6%) were immigrants. Similarly, 4,2% (679) of all students attended help groups, 259 of them being immigrants (39.1%). This table shows the odds of being in these groups according to the immigration status:

Table 5.4. Attending a special group

	Odds
First immigrant	0.05
First mixed	0.00
Second immigrant	0.04
Second mixed	0.02
French	0.02

Thus, immigrant students are slightly more likely to being tracked to these groups, especially if they are from non-mixed parental couples. If the system properly addresses the problems of immigrant students, once controlling for these variables, immigrant students may show no disadvantage in the number of years spent in elementary schooling.

Finally, **level** is a continuous variable ranging from 1 to 10. This is the teachers' estimation about the student's competence in mathematics, written and oral French language and reading at the moment of entrance into lower secondary school. Even if this estimation is not contemporaneous to elementary schooling, it is likely to be strongly correlated.

Finally, the fourth model (M4) controls for the family social origin using the head of the household's occupation to see whether the differences are due to the unequal stratification of these groups across classes. The Panel-95 includes a variable calculated by the Ministry of Education that registers the head of the household's professional category.[7] Note that, if by the time the questionnaire was distributed, the head of the household was unemployed or retired; it is his or her last occupation that is coded. This variable was recoded into a more parsimonious classification based on Goldthorpe' class scheme (1980), which is appropriate for contexts with a large tertiary sector. Like other neo-Weberian sociologists, Goldthorpe identifies class and occupation. In contrast to traditional Marxist or neo-Marxist class schemes, Goldthorpe defines class as a combination of two components: the productive resources that place individuals in the labour market (ownership of the means of production, education, etc.) and the extent to which they control their job and their working

---

[7] If the persons in charge of the student are both the father and the mother, then the head of the household is the father. If it is only one of them, it is that person. If it is not the father or the mother, then it is the person in charge. Finally, it is none if the student is under public protection.

environment.[8] Thus Goldthorpe approaches class from a multidimensional perspective where the individual class position depends on their material wealth –income, property and control of resources-, social prestige and political power.[9] Seven dummies were created for the operationalization of class.[10] The reference category is *classI-II.*

---

[8] From a Marxist perspective, occupation has to do with the techniques of production while class is a function of a mono-dimensional concept: the control of the means of production. Thus, in the Marxist approach, class and occupation belong to different dimensions. This has failed to explain the new relations of production because of the increasing differentiation between property and control of the means of production. Wright's (1985) classification transformed the traditional Marxist exploitation concept into domination and subordination – depending on the control over the investment of capital, control of the physical means of production and control over work.

[9] Erikson and Goldthorpe (1992) enriched this scheme to differentiate individuals depending on their relationship with the employer: those who work in a contractual relation and those who give a service under a more diffuse exchange. An important dimension in this classification is whether the position requires specific skills, when the autonomy of the workers is higher. Thus, this classification collapses occupations with similar levels of income, economic safety and employment and work conditions, income, conditions of employment, economic security, authority and controls in the production process, etc. (Breen, 2004: 9).

[10] (1) **class I & II**, professionals and directors –including big owners- high level technicians and supervisors of non manual workers; (2) **class III**, non manual routine employees working in administration and commerce, salesmen and other workers in the service sector (3) **class-IV a & b** small owners, autonomous craftsmen and other self-employed workers with or without employees –not belonging to the primary sector- (4) **class V & VI** middle grade technicians, supervisors of manual workers and manual qualified workers, (5) **class VII a** semi-qualified and non qualified manual workers not belonging to the primary sector, (6) **class VII b** farmers and other workers in the primary sector (7) **no-activity**: this is a category given in the Panel-95 when no present or past activity is known (n=542).

Table 5.5. Logit. Repeating elementary school

		M1	M2	M3	M4
Migrant status (ref. native)	1st *imm.*	0.78*** (0.18)	1.09*** (0.32)	0.52 (0.38)	0.27 (0.38)
	1st *mixed*	-0.46 (0.53)	-0.17 (0.60)	0.23 (0.71)	0.17 (0.77)
	2nd *imi.*	0.86*** (0.08)	0.87*** (0.08)	0.41*** (0.10)	0.27** (0.10)
	2nd *mixed*	0.10 (0.10)	0.10 (0.10)	0.09 (0.11)	0.10 (0.11)
Student arrival			-0.15 (0.09)	-0.20 (0.12)	-0.14 (0.13)
Preschool			-0.16*** (0.04)	-0.14*** (0.04)	-0.13** (0.04)
School performance	*Adaptation*			0.98*** (0.24)	0.89*** (0.25)
	Help			1.06*** (0.14)	1.06*** (0.14)
	Level			-0.70*** (0.02)	-0.65*** (0.02)
Class (ref: Class I & II)	*Class III*				0.65*** (0.15)
	Class IV a b				0.92*** (0.17)
	Class V VI				1.21*** (0.15)
	Class VII a b				1.21*** (0.14)
	No activity				2.02*** (0.26)
Constant		-1.67 (0.03)	-1.17 (0.12)	2.83 (0.17)	1.56*** (0.22)
N		10715	10715	10715	10715
Chi^2		119.76***	137.69***	1571.89***	1612.63***
Pseudo R^2		0.01	0.01	0.23	0.25

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

The first model (M1) reveals that the students coming from non-mixed parental couples are more likely to spend at least one extra year in elementary school. This does not seem to be the case among first mixed students, even if some may have arrived after the cohort entered elementary school. The second model (M2) indicates that this disadvantage cannot be explained by the fact that the foreign-born students lag-behind in terms of fewer years in preschool education or because they might have arrived in recent years to France. On the contrary, adding these two controls increases the estimate of the *first-immigrant* category. In any case, the *adaptation* groups and *help* networks properly identify students at risk –both estimates are high, positive and highly statistically significant. Table 5.6 shows the change in the probability of repeating any course in elementary education, when the student attended any of these two variables.

Table 5.6. Probability repeating elementary

Attending…	p.
Adaptation groups	0.76
… or not	0.24
Help groups	0.75
… or not	0.25

Legend: Estimations from M4 (table 5.5).

The estimate obtained for *level* is also significant and has the expected sign. These three proxies of performance in elementary school leave no unexplained variation associated with the *first-immigrant* category, and reduce the negative impact of being classified as *second-immigrant* to less than half of its previous size.

Finally, note that controlling for the head of the household occupation significantly decreases the estimates for the children of

non-mixed parental couples. It is thus clear that part of their disadvantage in elementary schooling is a compositional effect.[11]

5.1.3. Selection for special secondary education

The sections of special education (*sections d'éducation spécialisé*; SES) were created in the 1960s to strengthen the chances of students with intellectual handicaps in lower secondary schooling. The SES host problematic students in 6ème-4ème. The first two years are common to all branches, and offer access to professional training or apprenticeship from the third year. However, students attending these special sections have a stronger likelihood of leaving schools with no qualifications (Caille, 2000).

It has been argued that immigrant students are more likely to be grouped in these sections than natives. This concern has been echoed in instructions issued by the French Ministry of National Education:

> "[…] it has to be recognised that certain students with no particular needs for a special education are too often sent to SES. The over representation of foreign students, not being fluent in French language, is an example. The admission of foreign students in SES […] is an outrage" (Circulaire d'Orientation nº. 89-036, February the 6th 1989).[12]

The rest of this sub-section explores whether this really is the case. Only some 450 out of the 18.730 students surveyed in the Panel-95 were grouped in the SES education –this is no more than 2.5% of the total sample. The table below shows the distribution of students in SES across the immigration categories. Note that the

---

[11] Bear in mind that the immigrant effect almost disappears controlling for parental education. Under this model specification, no immigrant effect remains significant.

[12] Quoted from Vallet and Caille (1996: 89).

children of mixed parental couples are already collapsed in this analysis since all the migrant-origin students were in France by 1995.

Table 5.7. Attendance in SES across migration

	Percentage
French	2.32
First-immigrant	4.46
Mixed	1.69
Second-immigrant	3.68
Total	441 (2.5%)

Pearson Chi^2=21.49***; Cramer's V=0.0350.

The percentage of immigrant students enrolled in the SES track is only slightly above that of those coming from French-born families, and in all cases it is under 5%. Nonetheless, children from non-mixed parental couples are overrepresented. It is worth exploring explanations for these slightly different propensities towards SES education. Table 5.8 shows the result of a stepwise logistic regression analysis. The dependent variable is a dummy scoring 1 if the student is in **SES**, and 0 if he proceeded towards the general 6th grade (6ème, the first year of lower secondary schooling). *Level* is again the teachers' estimation of the student's competence in a series of subjects at the beginning of lower secondary education. The following models will show if the greater likelihood of attending special education is explained by school performance as measured by *level*. This will help reveal if immigrant students are grouped in the SES on the basis of their academic performance or if it is their immigrant status that conditions the choice.

The results leave no doubt. Immigrant students from non-mixed parental couples have an ex-ante higher likelihood of

attending SES education, which is explained by their poorer academic level.

Table 5.8. Logit. Being orientated towards SES

		M1	**M2**
Migrant status (ref. native)	*First-immigrant*	0.75* (0.29)	-0.09 (0.31)
	Second-immigrant	-0.34 (0.25)	-0.34 (0.27)
	Mixed	0.62*** (0.16)	-0.03 (0.18)
Level			-0.85*** (0.04)
Constant		-3.81*** (0.07)	0.48** (0.16)
N		14037	14037
Chi^2		22.41***	550.08***
Pseudo R^2		0.01	0.23

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

Thus, there seems to be no arbitrary behaviour in the decision of sending immigrant students to SES education. This is stable controlling for several family background characteristics (furthermore, some of the immigration categories turn out to be significantly negative after controlling for family background).[13]

---

[13] To ease the interpretation of this model (and others estimated for categorical dependent variables shown in the following pages) I present probability simulations estimated using the set of Post Estimation Commands for STATA (Long and Freese 2001: chapter 3).

Graph 5.1. Probability of being tracked to SES in lower secondary
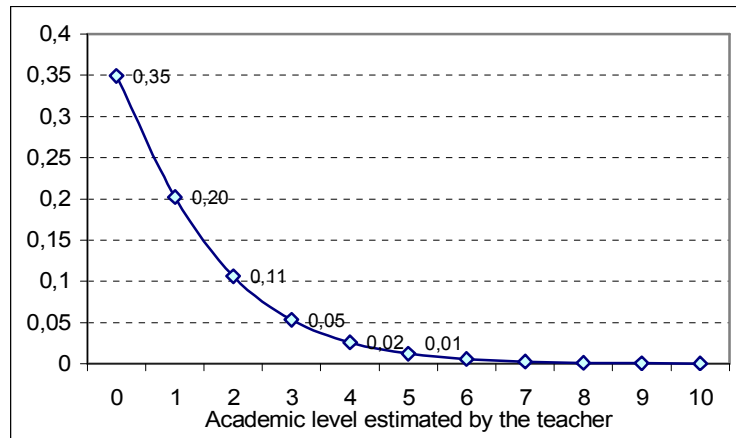
The graph indicates that those students whose average level in mathematics and French language at the end of elementary school is over three have a negligible probability of being sent to SES education –below 0,003- and this is valid both for the immigrants and the native students.

****

To sum up, the children of immigrant families are as likely as the children of French-born families to attending preschool education. Nonetheless, some of them already show some indications of disadvantage in elementary schooling, since they reach lower secondary after more years in elementary. Part of this disadvantage is explained by their poorer school performance and a class composition effect, but the estimates continue to reveal a small immigrant effect after controlling for class. This suggests that the children of immigrant families enter into lower secondary education with a worse academic background than their schoolmates. Sadly, the Panel-95 does not provide any measure of

school performance in elementary schooling to accurately test whether this is really the case. Luckily we can measure this handicap at the beginning of lower secondary schooling using the grades obtained in mathematics and French in 1995.

5.2. The academic performance in lower secondary school: Is there a gap in grades?

The *collège* is thought to amplify the social inequalities that appear in primary school. This happens both in terms of grades, the choice of options and especially in terms of future school careers (Duru-Bellat and Van Zanten, 1999). Secondary education in France is divided into two main blocks (see graph 4.1 for a description of the French school system). From the age of 11, students are enrolled in the *collège* -lower secondary school, from $6^{ème}$ to $3^{ème}$. The *Lycée* –upper secondary- follows, which the majority reach at age 15. Its professional track provides vocational credentials and the *général et technologique* offers the most straightforward access to university.

The *collège* develops skills acquired throughout elementary schooling and strengthens the students' ability to argue logically incorporating empirical facts. Throughout this period, different compulsory subjects are taught including French language, mathematics, a first foreign language, history and geography, life and earth sciences, technology, art and physical education. The *collège* is a crucial step in the school career because it tracks students for non-compulsory (upper) secondary school.

This section studies the students' school performance at their entrance into the 6th grade in mathematics and French language. This will be later complemented with the analysis of the rhythm of progress to show if the gap between immigrants and natives widens, remains stable or decreases over time. Finally, the chapter will analyse the students' careers in upper secondary school.

5.2.1. The immigrant effect in mathematics and French at the beginning of collège

One of the most important objectives of elementary education in France is the development of basic mathematical and language skills. Thus, the students' performance in these two subjects could be taken as an important predictor of future school success. International comparisons of test scores have shown that immigrants obtain significantly lower results in mathematics and reading in several countries including France (Mark, 2005). These two subjects broadly cover both types of school specialization - humanities and sciences- and it is for that reason that they are commonly used in the literature that analyses school performance. Mathematics is more enlightening about cognitive abilities, while attainment in French is more related to the broader cultural background (Dronkers and Robert, 2003: 15). Vallet and Caille (1996: 69-87) showed that immigrant students obtain poorer results in mathematics than in French language with the single exception of more recently arrived foreign-born students.

The dependent variables used in this section are the grades obtained in the evaluation exams at the beginning of $6^{ème}$ (1995). It is known that the collection of empirical material in the social sciences is generally less reliable than in the natural sciences, but some measures are more problematic than others. The use of tests for the study of educational disadvantage is thought to be particularly problematic. The results of school examinations are not a completely reliable way of measuring ability (Plewis 1985: chapter 1) since performance can vary from subject to subject, from day to day and from tester to tester (Plewis 1997: chapter 8). Duru-Bellat and Mingat (1989: 58) have revealed a 'bias in marking' meaning that marks depend substantially on the students' effective learning, although other individual and contextual level factors may exist. Nonetheless, grades are a key outcome that is often used by parents and students to monitor progress and to evaluate possible future prospects. Grades are usually highly correlated to achievement tests, but they are more

sensitive to the student's input, including hours spent with homework (Kao and Thompson, 2003: 421-2). Notwithstanding these limitations, grades are a good predictor of ability and future status attainment and should be a key objective of any educational reform:

> "[…] if racial equality is America's goal, reducing the black-white test score gap would probably do more to promote this goal than any other strategy that could command broad political support" (Jencks and Philips, 1998: 3-4).

- **Mathematics-1995** is the average score obtained in a number of maths-related exams. These include numeration and decimal numeration, algebra, numeric problems, geometry and other tests. *Maths-1995* ranges from 0 to 78.
- **French-1995** registers the average grade obtained by the students in the language-related evaluation exams including comprehension, text production, written expression and code knowledge. *French-exam* ranges from 0 to 68.

Both variables are normally distributed and both have been transformed to range from 0 to 100.[14] This will help compare the impact of immigration status under identical model specifications in both subjects. Bear in mind that the distribution of these two variables across the migration categories is fairly similar (see graph 5.2) even if the children of non mixed parental couples are visibly lagging-behind, and their distributions more disperse.

---

[14] See graphs A.1 and A.2 in the appendix.

Graph 5.2. The distribution of grades across migrant status in 1995
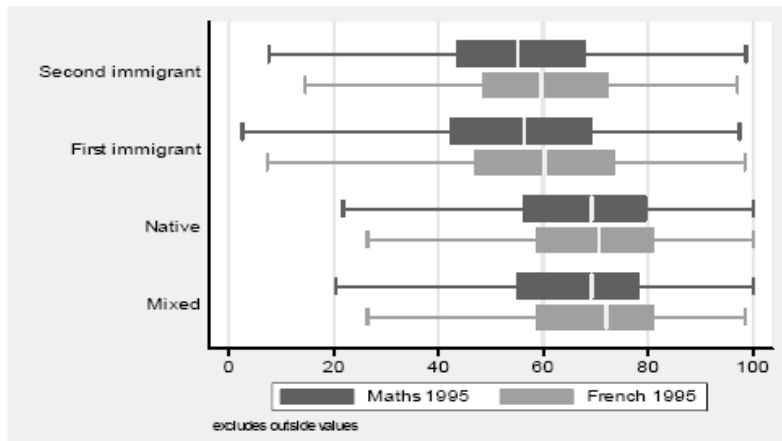
The following table presents the result of the regression analyses that measure the impact of the immigration status on achievement in the grades obtained in the evaluation exams in mathematics and French.

Table 5.9. OLS. Grades in mathematics and French in 1995

		Maths 1995	**French 1995**
Migrant status (ref. native)	*1st immigrant*	-10.92*** (0.89)	-10.04*** (0.85)
	Mixed	-0.59 (0.49)	0.12 (0.47)
	2nd immigrant	-11.17*** (0.46)	-9.42*** (0.43)
Constant		66.44*** (0.16)	68.75*** (0.15)
N		15463	15501
F		238.64***	197.35***
R^2		0.04	0.04

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

The results confirm a certain handicap among the immigrant students in comparison to the children of French-born families. It is especially significant for the children of non-mixed parental couples. Note that the negative impact of coming from a non-mixed parental couple is almost equal for first and second-generation immigrant students in mathematics and slightly higher for the first category in French. The differential is not significant for the children of mixed parental couples, whose estimate is even positive in the scores in French. In both cases, the models indicate the pertinence of the distinction between children from mixed and exclusively parental couples. Contrary to what is normally expected the generation effect –whether the student himself was born in France or elsewhere- seems less pertinent than the type of parental couple.[15]

---

[15] A simple linear restriction proves the preliminary irrelevance of distinguishing between fist and second generation immigrant students from non-mixed parental couples (h_0: first-immigrant=second-

The following sections complete the model specification with several socio-demographic controls so as to measure the net impact of immigration status.

5.2.2. Social origin explanations for the immigrant effect in grades

This section seeks to unravel the social-origin factors that may produce the above-measured differentials in grades. The following pages present an empirical test of some longstanding theories and explanations of class differentials in education reviewed in chapter two. It will be remembered that the hypothesis that structures this chapter assumes that class is *per se* a sufficient explanation for the significant differences between immigrants and natives:

$$H_{chapter\ 5}: \beta_{class} \neq 0$$

Thus, if this is confirmed, the differentials between immigrant students and the children of French-born families will result from their unequal stratification across social origin.

The upcoming models add basic controls to quantify the net impact of the immigration categories on school performance. This baseline specification includes the immigration categories, the head of the household's occupation, the student's sex and his or her number of years enrolled in preschool education. If immigrant and native families are unequally stratified across the class structure, controlling for a class classification drawn from the head of the household occupation will explain part of the immigration effect. Preschool aims at modelling the advantage of those students that could have spent more years in the educational system, whose rationale was explained at the beginning of this

---

immigrant), the F statistics are F=0.13 [Prob>F=0.72] for mathematics and F=0.24 [Prob>F=0.62] for French. As will be seen in the rest of the section, the distinction between these two categories becomes more evident.

chapter. Together with these two controls, **sex** is a dummy set equal to unity if the student is a female. It aims to test if the well-documented better school performance of girls (Tizard *et al* 1988: 7, Entwisle *et al*. 1994) has a significant impact before secondary education[16]. In France, girls are also thought to be better off than boys in language, while the opposite happens in mathematics (Duru-Bellat and Jarlégan, 2001). These are the results of the regression analyses.

Table 5.10 provides a similar picture to the one given by the models where only the migration categories were introduced. The class dummies are able to account for around one third of the gap between the children of immigrant and natives families both in mathematics and French. This is especially the case for the children of non-mixed immigrant families. In any event, it is important to stress that controlling for class, the children of immigrant families irrespective of their type of parental couple obtain worse results than natives. In other words, an important part of the immigrant effect continues to be significant.

The controls behave as predicted and, in most cases the estimates are significant. There are remarkable differences in the grades obtained by children across social classes. The number of years spent in preschool education boosts the scores obtained in the evaluation exams, so it can be preliminarily argued that preschool education has at least a positive mean term effect over school attainment. *Sex* is the only variable that cannot fully validate the initial expectations. The gender gap in mathematics is rejected in this model. Being a girl has a positive effect, so females seem to be better in maths than boys, although this effect is not statistically significant as it is for the grades obtained in French.

---

[16] Some studies explain this through gender biased parental expectations while others suggest genetic differences in the cognitive approach to mathematics.

Table 5.10. OLS. Grades. Immigration and standard controls

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. native)	*1st imm*	-10.61*** (1.07)	-6.79*** (1.17)	-9.42*** (1.01)	-6.67*** (1.15)
	Mixed	-0.45 (0.53)	-0.97 (0.52)	0.41 (0.50)	0.07 (0.46)
	2nd imm	-10.96*** (0.51)	-7.36*** (0.54)	-9.40*** (0.48)	-5.82*** (0.50)
Sex			0.17 (0.29)		6.46*** (0.27)
Preschool			1.15*** (0.22)		0.79*** (0.20)
Social class (ref. class I & II)	*Class III*		-4.37*** (0.43)		-3.75*** (0.39)
	Class IV a b		-7.36*** (0.54)		-7.36*** (0.49)
	Class V VI		-11.07*** (0.48)		-9.77*** (0.44)
	Class VII a b		-14.66*** (0.41)		-13.71*** (0.37)
	No activity		-20.12*** (1.64)		-18.05*** (1.43)
Constant		67.26*** (0.17)	72.07*** (0.76)	69.55*** (0.16)	71.73*** (0.69)
N		13131	13131	13158	13158
F		179.89***	221.90***	153.41***	275.35***
R^2		0.04	0.14	0.03	0.17

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

This specification is the baseline for the analyses below on the validity of several well-known explanations for social origin differentials in education. Yet, it is uncertain whether social class −as operationalized by the occupation group of the head of the household- adequately captures all the relevant features of the family that are likely to affect educational success (Vallet, 2005: 12-13). The rest of this chapter applies the theoretical explanations

that chapter two reviewed on the existence of social differentials in educational attainment.

The following analysis reviews the arguments used in the second chapter: material disadvantage, cultural deprivation and the existence of different expectations across groups.

5.2.2.1. Material deprivation and its effect on maths and French

Financial difficulties were announced to be a potential explanation to educational disadvantage in chapter two (Raftery and Hout, 1993; Lucas, 2001, Hauser, 1993; Kane, 1994; Jaynes and Williams, 1989: 345; Morgan, 1998). *Why might this be reflected in the student's grades*? Students from less affluent families perhaps anticipate the constraints associated with the lack of financial resources at the household level, and this may act as a disincentive for attainment. The Panel-95 includes appropriate tools to clarify if material deprivation is an adequate explanation for the gap in school performance observed between immigrants and natives. Unfortunately, the questionnaire lacks an objective measure of income per household. Instead, **income** is an ordinal variable drawn from the family questionnaire where the respondents were asked if their household's financial resources - salaries and other sources of income- were enough for the student to continue studying for as long as s/he wishes. Although the wording of the question refers to the length of the school careers, I argue that it is a good proxy that provides information about the specific share of the household income that the family is willing to invest in their children's education. However, families could differ in their perception of the amount of money required to face the costs of education, or even in their willingness to invest money in education, so the interpretation of this variable can be confusing. For that reason, the section ends with an auxiliary analysis that explores if immigrant and native families are equally able to make economic sacrifices for the sake of their children's education.

Here *income* ranges from 1 (very insufficient) to 4 (perfectly sufficient). Because of the non-linear relation between this variable and the grades obtained in 1995, I introduce its logarithm –*log(income)*-, even if its estimate is less intuitively interpretable.[17] If the children from poorer families anticipate the sort of difficulties derived from their family's lack of financial resources, *log(income)* will be associated with their academic results in the following way:

H1: Log(income) $\Rightarrow$ dependent variable
        +   +

If immigrant families are overrepresented among the most economically deprived, adding this variable to the model specification will decrease the size of the immigrant effect.

Given that *income* is not a perfect proxy of material deprivation, I shall add two more controls that proxy household financial resources. **Accommodation** reports the family's satisfaction with the residence where the student lives. Again, because of potential conformity with limited resources, this new control cannot be taken as a clear-cut measure of economic deprivation, but its combination with *income* is the best option that the Panel-95 includes to study the effect of financial limitations. *Accommodation* ranges from 1 -not satisfied at all- to 4 -very satisfied. For the reasons reviewed in chapter 2, and given the type of anticipatory behaviour suggested by the hypothesis stated above, we expect to find the following statistical association between the satisfaction with the family residence and the grades, if the families that are less satisfied with their accommodation happen to be more deprived:

---

[17] For the construction of this variable the *non réponse* answers were excluded from the analysis. This is also undertaken for the rest of the variables that are recoded.

H2: Accommodation $\Rightarrow$ dependent variable
<div align="center">+   +</div>

The correlation between *income* and *accommodation* is not very high [0.24]. A final correction is required in order to estimate the correct impact of *accommodation*. Irrespective of their financial resources, families in rural areas are likely to be more satisfied with their accommodation than families in urban areas. It is for that reason that I propose to control for the **town-size**, which ranges from 0 (the town has fewer than 5,000 inhabitants) to seven (the town is populated by 2,000,000). Paris and Île de France - Greater Paris- value 8. In France, Mondon (1984) has argued that immigrant students are advantaged with respect to natives because of their higher motivation and because they tend to concentrate in urban areas where better schools are available.

It will be remembered that chapter two reviewed the literature that explores the impact of attending a private school, which only represents a small part of the literature on school effects. This is the only indicator of school effects that is available in the Panel-95. Some authors argue that private schools not only represent better learning environments than public ones, but also that children from families who can afford paying fees benefit from better contextual conditions (Dronkers and Robert, 2003; Halsey *et al*., 1980).

If attendance in a private institution helps to proxy financial resources, it can model the families' economic commitment with children's education.[18] However, the private school sector in France is peculiar in comparison to other countries. Private schools in France are mostly confessional –mainly Roman Catholic schools (Daun, 2004: 325-346) with virtually no recognition of Islam or Judaism- so enrolment in private schools is

---

[18] It can also work as a modest proxy of parental educational aspirations if the family is aware of the advantage represented by the type of school attended.

not necessarily linked to an effort to improve learning conditions. French families tend to perceive the choice of a private school as having to do with religion and morals, and not only with higher attainment (Felouzis *et al*., 2005: 125-30). Although the public school is strictly separated from religion, the State subsidises confessional schools, contradicting the official discourse that proclaims that the school system promotes secularism and equal opportunities for all and does not reproduce cultural, linguistic, religious or socioeconomic diversity (Limage 2000). These confessional schools are private government-funded institutions. The so-called Dubré Act (1959) placed these institutions under tight control of the State, which funds and trains teachers in exchange for the acceptance of the public school regulations – schedules, timetables and admittance policy for non-Christians. The remaining fees to be paid by the families vary from school to school.

This is the distribution of schools according to their ownership in France as well as in other European countries:

Table 5.11. Size of the private school sector in selected European countries

	Private independent	**Private dependent**	**Public**
France	8.0%	14.2%	77.8%
Germany	-	4.9%	95.1%
United Kingdom	5.0%	-	95.1%
Spain	8.4%	29.2%	62.4%
Italy	3.4%	0.6%	96.0%
Sweden	-	3.3%	96.7%
Netherlands	-	76.1%	23.9%

Source: PISA 2000 from Dronkers and Robert (2003: 46).

France has a small number of private independent schools, which have no public funding. This suggests we should not distinguish between types of private institutions. **Private-school** equals 1 if the student attends a private establishment and 0 if it is a state owned school. The expectation is that

$$\textbf{H3}: \text{Private} \Rightarrow \text{dependent variable}$$
$$+ \qquad +$$

The introduction of the material deprivation factor helps to reduce the immigration effect in the models estimated for mathematics (M1-M2).

The children of non-mixed parental couples are now a point closer to the average grade obtained by the children of the native families. A smaller, but visible reduction happens in the model estimated for the results in French (F2). Even if not significant, the mixed estimate also grows. Thus, we can confirm that part of the immigrant effect is due to the financial deprivation of immigrant families. However, the gap between the children of immigrant and native families continues to be statistically significant after controlling for these mediating variables.

In the general case, the hypotheses stated for *income* and *accommodation* are confirmed. It is worth highlighting that the control *town-size* has a negative impact, so the larger the size of the town of residence, the worse the grades obtained by the student in mathematics and French. There are no significant interactions between these variables and the immigration categories.

Table 5.12. OLS. Grades and economic deprivation

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. natives)	*1st imm*	-5.89*** (1.38)	-4.73*** (1.37)	-6.09*** (1.37)	-5.46*** (1.37)
	Mixed	-1.00 (0.59)	-0.56 (0.58)	-0.08 (0.52)	0.25 (0.52)
	2nd imm	-6.39*** (0.67)	-5.49*** (0.68)	-5.10*** (0.61)	-4.58*** (0.62)
Sex		0.35 (0.32)	0.35 (0.32)	6.62*** (0.30)	6.61*** (0.30)
Preschool		1.09*** (0.25)	1.10*** (0.25)	0.64** (0.23)	0.63** (0.22)
Social class (ref. class I & II)	*Class III*	-4.27*** (0.47)	-3.47*** (0.48)	-3.66*** (0.43)	-2.91*** (0.44)
	Class IV a b	-7.07*** (0.61)	-6.43*** (0.62)	-6.98*** (0.55)	-6.39*** (0.56)
	Class V VI	-11.25*** (0.53)	-9.09*** (0.56)	-9.83*** (0.49)	-8.04*** (0.51)
	Class VII a b	-14.66*** (0.45)	-12.75*** (0.50)	-13.60*** (0.41)	-11.90*** (0.45)
	No activity	-21.22*** (1.85)	-17.74*** (1.88)	-18.80*** (1.58)	-15.97*** (1.61)
Material deprivation	*Log(income)*		4.27*** (0.39)		3.59*** (0.36)
	Accommodation		1.23*** (0.25)		0.59* (0.23)
	Town size		-0.25*** (0.06)		-0.15** (0.06)
	Private school		-0.56 (0.41)		-1.09** (0.39)
Constant		72.46*** (0.87)	64.71*** (1.42)	72.36*** (0.78)	67.69*** (1.28)
N		10710	10710	10737	10737
F		166.52***	135.40***	209.38***	159.96***
R^2		0.14	0.16	0.17	0.18

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

On the other hand, the estimate obtained for private school attendance is negative in both cases and significant for French. Therefore, attending a private institution has a negative impact on attainment in comparison to being enrolled in a public school. This partially confirms the results of previous research using the 1989 French Panel (Tavan, 2004: 143-145). In conclusion, this variable appears to lack the predicted effect found in the international literature. Although the Panel does not allow a proper cluster or multilevel sort of analysis, the appendix includes a multilevel estimation –the school being the cluster unit- of the impact of this variable, which confirms this conclusion. This analysis reveals that the distinction between private and public schools does not explain much of the inter schools variation (see A.3). However it suggests the existence of notable school effects, which are responsible for some 30% of the total variation in grades in 1995.[19]

5.2.2.1.1. Other material costs of education

It will be remembered from chapter two that the *Maximally Maintained Inequality* hypothesis (Lucas, 2001) argued that secondary schooling is not a space free of competition even if its access is universal, because the children of affluent families are better off and have better resources –better schools, extra support with homework, extra-curricular activities, etc. Morgan (1998: 139) also suggests that parents willing to invest money in their children's education are more likely to motivate them to study harder. For Chiswick (1988), even if pecuniary benefits and the costs of schooling are equal across groups, those for whom no-

---

[19] Note that all the models presented in this thesis have been re-estimated using a multilevel and cluster analysis approach. The estimates obtained using that perspective, do not modify the conclusions.

monetary consumption benefits are important may be willing to invest more funds at any given point.

It is important to see if immigrant and native families are equally likely to supply these extras to their children at the cost of some investment. Apart from the substantive importance of the topic, this also helps to judge the quality of the previous analysis, where the wording of the question used to construct the variable *income* could introduce some bias. The aim of this auxiliary analysis is to show if immigrant families spend less money in education, be it because of their pragmatism (Portes, 1995) or because of some extra financial obligations linked to the migration status -funding family reunification, sending remittances to their home country etc.

At this point I begin to employ data from the Efforts92 dataset. The best-available dependent variable is **paying-activities,** whose value is 1 when the student travelled abroad to study foreign languages for more than fifteen days or if s/he attends extra-curricular activities involving fees and classes. It takes the value of 0 in the remaining cases. *Paying-activities* is a good tool to explore the unequal proness of families across groups to invest in resources that increase the children's chances in the more competitive segments of the school system. Efforts92 also includes an objective measure of income per household given in French Francs.[20] As I have done in the models run for the Panel-95, I here introduce its logarithmic form –**log(income)**. Initially, there are only small differences in the proportion of immigrant and French-born families that have access to these activities (19% of French-born and the *mixed* families versus 17% of first-immigrant and 16% of second-immigrant ones).[21] A logistic regression will confirm this, controlling for the household income.

---

[20] **Income** includes salaries, unemployment benefits, any other type of benefits -including *allocation*-, pensions, and other types of income.

[21] The crosstab does not reveal a statistically significant association (Pearson's Chi^2 is 3.64 [N.S.]) and Cramer's V indicates that it only explains some 3% of the variance.

5.13. Logit. Paying activities

		Model 1	**Model 2**
Migrant status (ref. natives)	*First-immigrant*	-0.10 (0.30)	0.36 (0.32)
	Mixed	-0.06 (0.13)	-0.20 (0.14)
	Second-immigrant	-0.23 (0.14)	0.26 (0.15)
Log(income)			0.52*** (0.08)
Constant		-1.43*** (0.04)	-7.51*** (0.99)
Pseudo R^2		0.00	0.07
Chi^2		3.06	317.69***
N		4,780	4,780

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

The equations indicate that immigrant and French-born families do not present any differences in the likelihood of paying for extracurricular activities for their children. In the first model, all the immigrant estimators are negative. If anything, this means that they are less likely to invest in these activities. Yet, these initial but non-significant differences are inverted for the non-mixed immigrant families once we add the logarithm of the income available at household level, which as expected is a highly statistically significant predictor of the likelihood of spending more resources in education.

To sum up, immigrant families are not more reticent to spend money on their children's education than French-born families, even before controlling for the income available at household level. If Lucas's (2001) prediction is right, and this has critical

implications for academic success, we cannot say that the children of immigrant families are disadvantaged in this respect. Immigrant and native families are equally likely to provide their children with the best education they can afford.

5.2.2.2. Cultural deprivation and disadvantage in mathematics and French

In the literature review conducted in the second chapter, cultural disadvantage basically referred to the concept of cultural capital (Bourdieu, 1974; Bourdieu and Passeron, 1977). Other arguments and theories dealing with tastes for education were reviewed in the section devoted to preferences for education.

The operationalization of cultural capital is rather problematic (Jenkins, 1989; Sullivan, 2001). Sociologists have understood it in different ways, resulting in a long list of different empirical proceedings (Di Maggio, 1982; De Graaf, 1986 and 2000; Driessen *et al.*, 1999; Sullivan, 2001). Here I explore three alternative approaches to it. Firstly, I follow Halsey *et al.*'s (1980: 73-89) use of parental education. It will be remembered that *parental education* ranges from one (no diploma) to six (university). If this is a good proxy of cultural capital we expect to find the following statistical association with children's school performance:

$$\textbf{H4:} \text{ Parental education} \Rightarrow \text{dependent variable}$$
$$+ \qquad\qquad +$$

The Panel-95 lacks information about parental participation in highbrow activities but it registers students' consumption. This is an indirect measure of the stock of cultural capital accumulated at household level, and I assume that the parents influence student's behaviour. Of course, this is not a very orthodox practise, but it is the best approximation that the Panel-95 allows for this particular dimension of cultural capital. The reader can argue against this

practise because *art-activities* comes from the 1998 family questionnaire and there is no previous information about it, so the effect of this variable could be spurious given that " […] *after cannot cause before… there is no way to change the past… one way arrows flow with time*" (Davis, 1985: 11). Yet, the argument here is not that attendance to these activities enhances individual grades –indeed, after cannot cause before-, but that if the student attends these activities at the age of 12, then it could be said that he/she does it as a consequence of his family's stock of cultural capital. Because of this limitation, this section will be followed by a complementary analysis using the *Efforts92* survey.

Art-activities is the result of collapsing a list of variables about the student's participation in computer clubs, being member of a conservatory, music or dancing school, youth cultural association, and attending regularly courses of music or any other artistic discipline. *Art-activities'* value is 1 if the student attends classes for any of these activities and 0 otherwise. If this variable is correlated with the parental consumption of cultural and/or artistic activities, we will be able to test if the accumulation of cultural capital is associated with a better school performance.

$$\textbf{H5: } \text{art-activities} \Rightarrow \text{dependent variable}$$
$$+ \qquad\qquad +$$

The distribution of *art-activities* across migrant status shows that students from parental couples formed by two immigrants are less inclined towards this type of activity, while there is no difference between natives and immigrant students from mixed parental couples.

Table 5.14. Crosstabs: Consumption of art-activities across immigration status

	French	Mixed	1st imm	2nd imm
Yes	4,136	382	70	296
	41.04	36.14	29.54	29.51
No	5,942	675	167	707
	58.96	63.86	70.46	70.49
Total	10,078	1,057	237	1,003
	100	100	100	100

Legend: N and col. percentages.
Pearson Chi^2= 66.72*** Cramer's V = 0.07.

A third approach to cultural capital in the empirical analyses is the consumption of TV (Sullivan, 2001). The Panel-95 provides information on whether the respondent to the family questionnaire restricts the time that the student devotes to watching TV. This can reveal if this increases participation in other activities such as studying, in which case its effect on school attainment will be positive. Kerbow and Muller (1993) argue that it may be in line with the setting of rules at home that also increases the time that the children devote to their homework. *TV* was constructed from the following question: *do you do anything to limit the time that your child spends watching TV during term time?* TV's value is set to 1 when the answer is yes and 0 otherwise.[22]

H6: TV $\Rightarrow$ dependent variable
        -      +

The results indicate that cultural capital is indeed one of the most important mediating mechanisms behind the immigrant effect.

---

[22] Families without TV are excluded from the model (n=297).

Table 5.15. OLS. Grades and cultural deprivation

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. native)	*1st immigrant*	-4.72** (1.49)	-2.64 (1.40)	-5.77*** (1.52)	-4.03** (1.44)
	Mixed	-0.47 (0.59)	-0.58 (0.56)	0.22 (0.53)	0.05 (0.50)
	2nd immigrant	-5.34*** (0.71)	-1.15 (0.73)	-4.51*** (0.65)	-0.90 (0.67)
Sex		0.28 (0.33)	-0.21 (0.32)	6.60*** (0.30)	6.02*** (0.30)
Preschool		1.16*** (0.25)	1.01*** (0.24)	0.74** (0.23)	0.60** (0.22)
Social class (ref. Class I & II)	*Class III*	-3.41*** (0.48)	-1.51** (0.47)	-2.98*** (0.44)	-1.21** (0.43)
	Class IV a b	-6.23*** (0.63)	-2.96*** (0.61)	-6.54*** (0.57)	-3.43*** (0.56)
	Class V VI	-8.70*** (0.57)	-3.89*** (0.58)	-7.81*** (0.52)	-3.36*** (0.53)
	Class VII a b	-12.70*** (0.51)	-6.64*** (0.55)	-11.85*** (0.46)	-6.26*** (0.50)
	No activity	-17.07*** (1.98)	-9.06*** (1.98)	-15.08*** (1.63)	-7.56*** (1.60)
Material deprivation	*Log(income)*	4.16*** (0.40)	2.40*** (0.40)	3.45*** (80.37)	1.83*** (0.36)
	Accommodation	1.18*** (0.26)	1.07*** (0.25)	0.68*** (0.24)	0.60** (0.23)
	Town size	-0.26*** (0.06)	-0.30*** (0.06)	-0.15*** (0.06)	-0.22*** (0.06)
Cultural deprivation	*Art activities*		2.07*** (0.34)		3.01*** (0.31)
	TV		-2.58*** (0.36)		-1.73*** (0.33)
	Parental education		3.16*** (0.14)		2.80*** (0.13)
Constant		64.52*** (1.41)	50.47*** (1.53)	66.41*** (1.28)	52.94*** (1.38)
N		10101	10101	10128	10128
F		131.76***	147.80***	156.16***	165.62***
R^2		0.15	0.21	0.18	0.23

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

Once we control for the list of variables that proxy cultural capital we find no significant differences between the migration groups and the children of native families, with the only exception being the foreign-born students in the model estimated for French language (F2).

The hypotheses on parental education and highbrow activities are fully confirmed. Indeed, the results indicate that the level of cultural capital that a family accumulates enhances the academic results of the children. If we accept the assumption that attending the series of activities used to build *art-activities* is correlated with more parental cultural capital, we can confirm the initial expectation.

In fact quite the opposite is true, *TV* has a negative sign. In other words, when the student cannot watch television freely, his scores in the evaluation exams are lower. This contradicts the common wisdom that time devoted to watching *TV* is negatively correlated with academic success -be it because they spend less time studying or because they do not develop their cognitive skills. However the direction of the causal association could be reversed if the children that are prevented from watching too much TV happen to be those that obtain poor academic results. For that reason, this variable will be eliminated from the specification proposed in the forthcoming models.

The three proxies of cultural deprivation decrease the importance of the *income* and *accommodation* coefficients although both remain statistically significant. It is important to note that the class estimates greatly decrease in size after controlling for the proxies of cultural capital.

5.2.2.2.1. A further analysis of cultural capital

Given the imperfect approximation that the Panel-95 allows to the concept of cultural capital, an auxiliary analysis is now provided where cultural capital is modelled using data from Efforts92. Two dependent variables are used to explore if the

distribution of cultural capital across the immigrants is equal to that seen in the case of *art-activities*. Ceteris paribus, *do immigrant families present the same distribution of cultural capital than natives*?

Difficulty is the respondent's answer to the following question: "do you normally feel unable to help your children with their homework because you lack the appropriate knowledge? ". *Difficulty* is an ordinal variable, which ranges from 1 –very often- to 4-very rarely. It can be assumed that those families where the parents face fewer difficulties in helping the children with their homework have more cultural resources. There is another good proxy for the operationalization of cultural capital: the possession of educative and cultural material by the family that may help the students in their homework (Dronkers and Robert 2004: 17). **Cultural-material**'s value is 1, 2, 3 or 4 if the family owns one or more of the following items: encyclopaedias, almanacs, a PC or other educative material to support their children's education.

The tables below show the distribution of these two variables across the immigration categories.

Table 5.16. Crosstabs: Difficulty by migration status

	Native	**1st immigrant**	**Mixed**	**2nd immigrant**
Very often	882	54	88	232
	25.6*	69.2*	21.9*	58.6*
Often	809	10	108	71
	23.5*	12.8	26.9*	18*
Rarely	526	7	69	36
	15.3*	9	17.2	9.1
Very rarely	1,221	7	137	57
	35.5*	9	34.1*	14.4
Total	3,438	78	402	396
	100%	100%	100%	100%

Legend: N and col. Percentages.
Pearson Chi^2= 268.07*** Cramer's V = 0.14.

As before, the distribution of *difficulty* and *cultural-material* is rather unequal across migration status. In both cases, the parental couples composed by two immigrants are more culturally deprived than French-born parents or *mixed* ones. The majority of children from immigrant parental couples rely on less help with their homework since their parents find it more difficult to do it than French-born parents or those from mixed marriages. It is also evident that these are also the households with fewer cultural materials.

Table 5.17. Crosstabs: Cultural material by migration status

	Native	**1ˢᵗimmigrant**	**Mixed**	**2ⁿᵈimmigrant**
None	755	40	74	189
	18.14*	45.98	15.48	41.27*
1	1,209	21	144	126
	29.04*	24.14	30.13*	27.51*
2	1,155	14	125	87
	27.74*	16.09	26.15*	19.00
3	778	10	95	43
	18.69*	11.49	19.87*	9.39
4	266	2	40	13
	6.39*	2.30	8.37	2.84
Total	4,163	87	478	458
	100%	100%	100%	100%

Legend: N and col. Percentages.
Pearson Chi^2= 196.11*** Cramer's V = 0.11.

The evidence indicates that immigrant families own fewer cultural resources than other households. But this unequal distribution of cultural capital could be the result of the different class stratification of immigrants and French-born families.

To test if this is the case, let's see if the differences remain significant controlling for class and parental education,

constructed using the same protocol that was explained in the previous sections. The model specification also includes income per household.

Table 5.18. Ordinal logit. Other measures of cultural capital

		Difficulty D1	**Difficulty D2**	**Cultural Mat. C1**	**Cultural Mat. C2**
Migrant status (ref. natives)	*1st imm*	-1.86*** (0.25)	-1.32** (0.26)	-1.08*** (0.21)	-0.58** (0.22)
	Mixed	0.03 (0.10)	-0.01 (0.10)	0.15 (0.09)	0.02 (0.09)
	2nd imm	-1.38*** (0.11)	-0.80*** (0.11)	-0.99*** (0.09)	-0.51*** (0.10)
Social class (ref. class I & II)	*ClassIII*		0.03 (0.10)		-0.24** (0.09)
	ClassIV a b		0.03 (0.11)		-0.27** (0.10)
	ClassV-VI		0.04 (0.09)		-0.43*** (0.08)
	ClassVII a b		-0.03 (0.13)		-0.73*** (0.11)
Parental education			0.42*** (0.03)		0.24*** (0.02)
Log(income)			0.17*** (0.05)		0.53*** (0.05)
Cut points	*Cut point1*	-1.07*** (0.04)	2.05** (0.66)	-1.47*** (0.04)	4.96*** (0.59)
	Cut point2	-0.04*** (0.03)	3.17*** (0.66)	-0.11*** (0.03)	6.45*** (0.59)
	Cut point3	0.60*** (0.04)	3.84*** (0.66)	1.09*** (0.04)	7.75*** (0.59)
	Cut point4			2.68*** (0.06)	9.40*** (0.60)
Pseudo R^2		0.02	0.05	0.01	0.05
Chi^2		231.63***	597.10***	140.69***	747.39***
N		4,016	4,016	4,859	4,849

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

Generally speaking the results point to a significant shortage of cultural capital among immigrant families (D1 and C1). Those categories that were clearly lagging-behind in previous sections – immigrant students and the children of immigrants from non-mixed parental couples- have significant, negative and fairly large coefficients in comparison to French-born families. This occurs for both dependent variables. Immigrant parents are more likely to find it more difficult to help their children than French-born ones. Also, immigrant families from non-mixed parental couples are less likely to have encyclopaedias, almanacs, PCs or any other cultural material at home.

Being *classI-II* the reference category, the class variables are significantly negative. Logically parental education is positive and significant in the two models above. *Log(income)* also increases the likelihood of scoring one in both dependent variables. To sum up, we can say that these two variables approximate the meaning and the effect of cultural capital and that immigrant families are much more culturally deprived than natives.

To give a clearer picture of these conclusions, I now present some graphs to ease the interpretation of the logit estimates in terms of probability.

The effect of coming from an immigrant family represents a significant disadvantage that is softened by parental education. As the graphs show, first generation immigrants are much more deprived, at all levels of parental education than second generation immigrants.

Graph 5.3. Difficulty. Change in probability for parents with no diploma
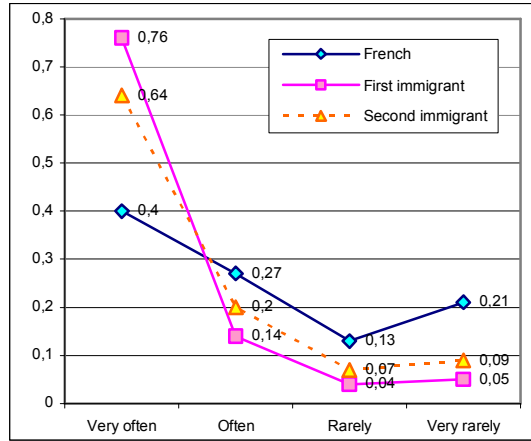
Graph 5.4. Difficulty. Change in probability for parents with university degrees
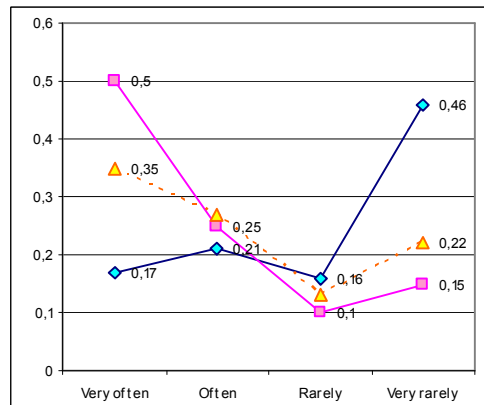
Graph 5.5. Cultural material. Change probability for parents with no diploma
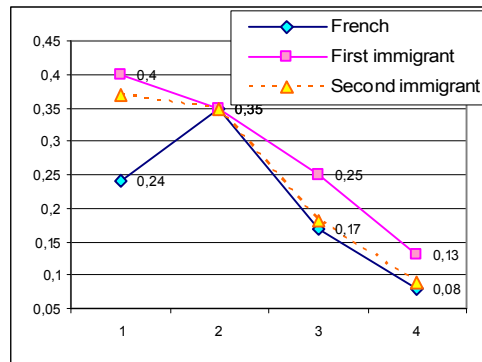
The same applies to the likelihood of owning cultural materials. The third graph (5.6) shows that a French-born family is more likely to have some cultural materials at home. Then, the probability line has a smoother gradient for French-born than for immigrant families. When the French-born parents have a university degree, the bell-shaped probability line is more skewed to the right than it is for immigrants. For these last groups, the peak is found when cultural material is equal to 1, while it is 2 for French-born families. What these four graphs show can indicate that cultural capital can be a much more country-specific concept than is usually believed as Kalmijn and Kraaykamp suggested (1996) and it can be culturally biased in favour of natives (Geert and Driessen, 2001).

We can now conclude that immigrant and native households own different stocks of cultural capital. The distribution of cultural capital across immigrant and natives families is similar to the distribution of *art-activities*, and this makes this last variable more reliable. Children from exclusively immigrant parental couples come from families that have accumulated less cultural capital.

Graph 5.6. Cultural material. Change probability for parents with university studies
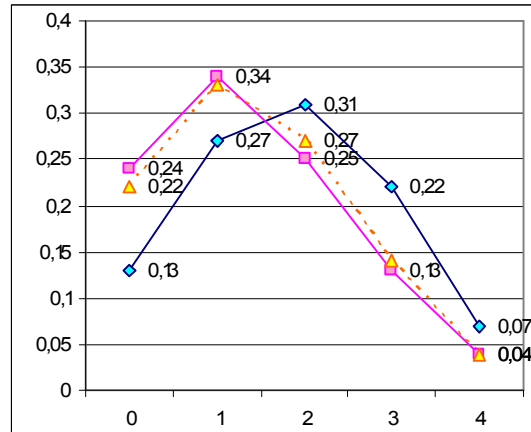
5.2.2.3. Educational expectations and disadvantage in mathematics and French

As was said in chapter two, the study of educational expectations is among the most controversial topics that sociologists studying class differentials in education have traditionally tried to clarify. In the literature review, I introduced the reader to the intense debate around the existence of homogenous (Willis, 1977; Murphy, 1981 and 1990) or group-specific tastes for education (Boudon, 1974; Breen and Goldthorpe, 1997). I also mentioned that some authors provided a mixed response to this issue (Gambetta, 1987). The chapter also explained how arguments in favour of the homogenous preferences for education across social groups, claim that the amount of ambition required to cover the distance between social origin and destination (educational attainment) differs across groups, and that this explains the persistence of class differentials in educational attainment.

Some scholars have also argued that immigrant families have more ambitious educational expectations than natives (Muller and Kerbow, 1993; Kao and Tienda, 1995; Kao and Thompson, 2003) and this has been confirmed in French using data from the Panel-95 (Brimbaum and Kieffer, 2005; Caille 2005a and 2005b). A potential explanation for this *immigrant optimism* is that the decision to migrate could be strongly determined by the willingness to progress and to improve one's life conditions (Constant and Massey, 2002). It is for that reason that *ceteris paribus* immigrant families could give more importance to their offspring's education than similar native families.

Although the distinction between preferences and ambitions is conceptually clear and analytically relevant; I have already noted that disentangling the empirical impact of these two concepts is complicated. In our case, the Panel-95 blocks the separate treatment of these two factors. The panel only allows the use of a broad measure of educational expectations that mixes tastes and ambitions. It is the answer given by the respondent to the family questionnaire to the following question: "which is the educational option that you estimate as more useful to find a job? ". Given the wording of the question, the respondent is asked to give his or her opinion for the general case, so we can discard the endogeneity between his or her answer and the student's level of school success.[23] Therefore, if there is a causal relation it will work in a single direction: from expectations to results.

---

[23] This approximation to the study of educational expectations also models the effect of labour market incentives (something that in the literature review was only mentioned in chapter six) in educational attainment through the effect of parental preferences for different tracks or number of years spent at school. Educational decision-making is not only about individual choices. Choices are made within the framework of families. The inclusion of the respondent's thoughts about the value of each diploma could also capture the effect of labour market discrimination towards particularly defined groups. Evidently, this is of special importance for the study of immigration.

The answers to this question have been split into four dummies: none of the diplomas have value –**utility-none**-; the vocational diplomas –**utility-vocational**-, the baccalaureate –**utility-BAC**-, or any university degrees –**utility-university**- are the best options. The 'does-not-know' option has also been recoded into a dummy –**utility-doesn't-know**. Excluding this category had a very large cost in terms of lost cases. For that reason there is no hypothesis regarding the behaviour of those choosing this answer, although it may affect negatively since this lack of information could be associated with a low value attached to education. This category also prevented the ordinal recodification of this variable. So as to make the interpretation of the coefficients simpler, the reference category is the university option –**utility-university**.

It is worth first exploring the crosstabs between educational expectations and immigration categories. The following table presents the row percentages and the cell residuals.

Table 5.19. Crosstabs. Perceptions of the utility of diplomas

	Utility none	Utility vocational	Utility BAC	Utility university	Doesn't know	Total
French	1.59	28.18*	12.50*	35.36*	22.37*	100
Mixed	2.19	22.45*	11.39	41.01*	22.95*	100
1st imm	0.70	19.51	17.42	33.80	28.57	100
2nd imm	1.67	19.73*	17.15*	32.25*	29.21*	100
Total	1.63	26.70	12.85	35.52	23.20	100
N	225	3,674	1,782	4.888	3,193	13,762

Pearson Chi^2 = 92.02*** Cramer's V = 0.05.

As we can see, the differences between the immigrant and native groups are not very important, with the only exception being the vocational option, which is more preferred by the

French-born than by the immigrant families. The latter group is also more represented among those that recognise to ignore which the best option. They are also more likely to perceive the BAC as the best option. Nonetheless, the differences are remarkable at each level of parental education (Brinbaum and Cebolla-Boado, 2007). The French-born respondents to the family questionnaire with no formal education (no diploma) find that the university is the best option in 7.8% of the cases, while this percentage reaches 9.7 for the mixed migration category, 19.4 for the first-immigrant and 26.2 for the second immigrant. If we look at the respondents with primary education, the figures are 11.1 for the French-born, 19.2 for the mixed 20 for the first-immigrant and 25.8 for the second-immigrant. If these dummies can model the existence of different educational expectations across families, we expect to find the following statistical association with school results.

H7: Diploma-utility $\Rightarrow$ dependent variable
$$+ \qquad\qquad +$$

Table 5.20 confirms the empirical importance of parental expectations. Indeed, perceiving that a particular diploma is more useful in finding a job is significantly associated with the grades obtained in the evaluation exams in mathematics and French language. Even the 'doesn't know' category has a statistical significant impact, so indifference or uncertainty about the most useful educational choice may negatively affect the academic outcomes in comparison with pushing for the highest qualifications.

Table 5.20. OLS. Grades and educational expectations

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. native)	*1st imm*	-2.50 (1.40)	-4.06** (1.45)	-3.82*** (1.40)	-4.86*** (1.47)
	Mixed	-0.74 (0.56)	-1.15* (0.55)	-0.09 (0.49)	-0.33 (0.48)
	2nd imm	-1.11 (0.74)	-3.00*** (0.73)	-0.93 (0.67)	-2.50*** (0.66)
Sex		0.02 (0.32)	-0.40 (0.31)	6.17*** (0.29)	5.72*** (0.29)
Preschool		1.02*** (0.24)	0.99*** (0.23)	0.54* (0.22)	0.55* (0.22)
Social class (ref. Class I & II)	*Class III*	-1.71*** (0.47)	-0.74 (0.46)	-1.22** (0.43)	-0.35 (0.42)
	Class IV a b	-2.94*** (0.60)	-1.38* (0.58)	-3.17*** (0.55)	-1.78*** (0.54)
	Class V VI	-4.13*** (0.58)	-2.18*** (0.56)	-3.50*** (0.53)	-1.65** (0.51)
	Class VII a b	-6.57*** (0.54)	-4.43*** (0.54)	-6.17*** (0.49)	-4.21*** (0.49)
	No activity	-8.26*** (2.00)	-6.00** (2.03)	-7.56*** (1.60)	-4.89** (1.61)
Material deprivation	*Log(income)*	2.50*** (0.39)	2.01*** (0.38)	1.88*** (0.36)	1.49*** (0.36)
	Accommodation	1.05*** (0.25)	1.09*** (0.25)	0.56* (0.23)	0.62** (0.23)
	Town size	-0.30*** (0.06)	-0.38*** (0.06)	-0.21*** (0.06)	-0.28*** (0.05)
Cultural deprivation	*Art activities*	2.04*** (0.34)	1.50*** (0.33)	2.98*** (0.31)	2.50*** (0.30)
	Parental education	3.15*** (0.14)	2.55*** (0.14)	2.78*** (0.13)	2.25*** (0.13)
Educational Expectations	*Utility none*		-6.65*** (1.61)		-5.38*** (1.29)
	Utility vocational		-9.74*** (0.44)		-8.76*** (0.41)
	Utility BAC		-3.93*** (0.52)		-3.99*** (0.48)
	Utility doesn't know		-3.11*** (0.44)		-2.73*** (0.40)
Constant		48.52*** (1.51)	54.96*** (1.52)	51.82*** (1.34)	57.39*** (1.37)
N		10258	10258	10513	10282
F		154.97***	162.52***	181.68***	176.68***
R^2		0.21	0.25	0.23	0.27

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

Noticeably, once educational expectations are included in the model specification, the immigrant effect is again statistically significant. The estimate for foreign-born students is again highly significant and below -4. The estimated coefficient for French-born children of immigrant families is under -2.5 in both dependent variables. The impact of these variables on the mixed type of immigrant students is not remarkable –although this group presents a minor and slightly significant negative effect in the case of the grades obtained in mathematics. Using the same dataset, Caille (2005b) has already noted that the children of immigrant families obtain worse results than those of natives even taking into account their higher educational ambitions. *Why could this be the case*? Even if immigrant families have higher educational expectations than their French-born counterparts (Brinbaum and Kieffer, 2005; Caille 2005a), this may not be translated into an advantage if they do not motivate their offspring or stimulate them accordingly (Kao and Thompson, 2003: 436). The effect of parental involvement in education is the topic under study in the seventh chapter.[24]

Some of the class dummies remain significant after the introduction of educational expectations. In the case of mathematics the *class III* coefficient is reduced by one point and is not significant. *Classes IV a & b* lose one and a half points; *V* and *VI*, and *VII a &* b lose between 2 and 1.5 points. Accordingly, the results shown here contradict to some extent the view of diverging educational expectations as regards the whole explanation of class differentials in education, but they certainly show that, controlling for other class factors, expectations may well be one of the mechanisms explaining class differentials in educational attainment.

---

[24] It is not clear whether parental involvement in education totally correlates with social origin. Given that the debate is open in the literature; parental involvement has not been included as another social origin mediating factor.

In addition, the coefficients for the expectation dummies are very large, something that demonstrates their empirical importance. All these variables are highly significant. In the case of those respondents who estimate that the vocational option is the most useful in finding a job, the coefficients are -9.7 (***) for mathematics and -8.8 (***) for French. This confirms the primary role of families in stimulating children's school attainment through their expectations. The cultural and economic deprivation variables continue to be significant, although in the case of the income devoted to education, and attendance in artistic activities, the size of the estimates is noticeably reduced.

5.2.2.3.1. Willingness to invest in education

An alternative approach to study the importance that parents attach to education is to focus on the likelihood of accepting certain economic sacrifices for the sake of the children's education, controlling for household income. This can be modestly studied using the Efforts92 dataset. As was said in the second chapter, Lucas (2001) claims that affluent families give more resources to their offspring to compete in the non-universal stages of the school system. More specifically this can be achieved by spending money on extra-curricular activities that will enhance the chances of succeeding throughout their schooling or devoting more money to enrolling the children in more prestigious schools at a particular financial cost.

For this test I have constructed a specific dependent variable called **economic-sacrifices**, whose value is 1 if the respondent said that the family makes any of the following sacrifices to facilitate their children's enrolment in further education: working after the age of retirement, abandoning certain hobbies or spare-time activities and any other type of restriction implying an economic sacrifice. Its value is 0 otherwise. This will also serve to test the claim that immigrant families are more responsive to the

direct –material- costs of education as well as to low levels of household income. This set of questions was only put to families whose children were in higher education, so the frequencies in this analysis are significantly smaller.

The percentage of *second-immigrant* and *mixed* immigrant families who accept these sort of economic sacrifices (67 and 65% respectively) is not very different from that of French-born families (62%). Nonetheless, it is quite different from the percentage of *first-immigrant* families that do it (50%).[25] The table below presents the estimates of a binary logistic regression. I will measure the net impact of the immigration categories controlling for the household income measured in French Francs.

Table 5.21. OLS. Likelihood of making economic sacrifices

		Model 1	**Model 2**
Migrant status (ref. natives)	1st *immigrant*	-0.981 (0.58)	-1.077 (0.60)
	Mixed	0.105 (0.25)	0.164 (0.26)
	2nd *immigrant*	0.182 (0.31)	0.298 (0.34)
Log(income)			-0.389*** (0.14)
Constant		0.511*** (0.08)	4.773*** (1.75)
Pseudo R^2		0.00	0.02
Chi^2		3.65	22.67*
N		733	733

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

---

[25] The association between these variables is not significant (Pearson's Chi^2= 3.96 N.S) and the relation between these two variables is not strong Cramer's V=0.07.

The differences across migration categories are not statistically significant before and after controlling for household income. None of the immigration categories behave significantly different from the French-born families, and the only immigration group whose estimate is negative are the foreign-born children of non-mixed immigrant parents. This could be due to the extraordinary costs imposed by migration (funding trips and related expenses such as financing family reunification) or sending remittances to their homeland.

In the second model, the only variable that has a significant coefficient is *log(income)*. Thus, variation in the willingness to make economic sacrifices for their offspring's education is only due to the unequal distribution of income across households.

Accordingly, if we accept that *economic sacrifices* is a valid measure of the tastes for education across families, we can reject the idea that immigrant parents are disadvantaged in this respect.

Therefore, this whole section is unable to take an unmistakably firm position in the debate of parental expectations across groups. What the evidence suggests is that perceptions about the utility of education have a significant influence in school performance. A model specification that includes the perception of the utility of the educational tracks leaves some unexplained variation between immigration categories, whose explanation will be the focus of chapter six.

5.3. Is the gap long-lasting? The dynamic perspective

The previous section revealed the existence of a significant immigration effect in school results controlling for a number of variables that proxy social origin. This section explores the evolution of this gap over time. To do so, we shall now focus on the extent to which the rate of progress in mathematics and French is different for immigrants and the children of French-born families. Attainment is a static concept, which only tells us about

differences at a particular moment of time. On the other hand, progress refers to a longitudinal perspective. Its empirical implications are very large. If groups progress at different rhythms, the above-measured gap may increase over time, accentuating the problem of group differentials. This new section aims to study if the immigrants' handicap persists or decreases throughout lower secondary schooling.

Several authors working on the educational performance of immigrant students in France have suggested that even if the children of immigrant parents reach each stage of their school career with a poorer academic level than the natives, there is no reason to be pessimistic since students from an immigrant origin progress faster than those coming from native households. In France several scholars have supported this argument (Ernst and Radica, 1994; Vallet and Caille, 1996; Duru-Bellat and Mingat, 1997: 774) while others have rejected it (Bastide, 1992; Serra and Thaurel-Richard, 1994). Mingat (1984) found a slightly faster rate of progress among the most recently arrived immigrants and especially among the students from North African origin. Yet, other sociologists have argued that this effect is not ethnic-specific, but common to all immigrants (Mateo 1992; also in Bressoux and Desclaux, 1991 and Bressoux, 1993). Mingat (1991; also in Mingat and Richard, 1991) argued that the rate of progress among first-generation immigrant students is faster than it is for French-born students, but that, unexpectedly, French natives progress faster than second-generation immigrant students. Vallet and Caille (1996: 120-139) used this faster progress of immigrants to account for their higher likelihood of following academic oriented careers rather than vocational tracks.

It is important to properly understand what causes this successful behaviour. *Why might immigrant students progress faster than natives?* There are several potential explanations for this regularity. One of the most common is the positive self-selection of the immigrant population. Economic immigrants are not supposed to be fully representative of the population of their home-country, but rather a differentiated sub-group that is more

motivated, able, ambitious, aggressive and entrepreneurial than those who choose not to migrate (Chiswick, 2000: 61; Borjas and Bronars, 1991). This argument, inspired by human capital theory, assumes that positive self-selection is more intense the higher the costs attached to the migration experience –for instance: the more distant the country of destination is from the origin. In any case, this theory ignores the network-driven nature of immigration. Other authors have explained the success of immigrant students through their respect of authority (Suárez-Orozco and Suárez-Orozco, 1995) or their motivation (Kao and Tienda, 1995). Vallet (2005) has noted in the faster progress of immigrant students evidence of their adaptation to the environment and their socialization in the host country. However, my suspicion is that an immigrant effect in the rate of progress could be due to something else that speeds school results up. My hypothesis is that on average, the children of immigrant parents depart from lower initial grades, and that it is much easier to improve from a low grade of departure than from brilliant results.

As was explained in the fourth chapter, the Panel-95 monitored the students' academic results over time. This longitudinal information covers the whole of lower secondary schooling including the *brevet des collèges* that closes the period and measures the students' general academic level at the end of the *collège*. The *brevet* scores are the combination of information about the students' continuous effort right from the start of lower secondary school and the grades obtained in the final year -3ème exams. Although it is no longer the prestigious exam that it used to be in the past when it opened up real professional opportunities, it represents a turning point in secondary schooling because it is used to evaluate the students' career prospects. It very much conditions the tracking of students in upper secondary since it

provides the class council with crucial information about the student's abilities and skills.[26]

In order to measure the students' evolution over time, I combined the grades obtained in the evaluation exams –*math-1995* and *French-1995*- and their equivalents from the *brevet des colleges* –**French-1998** and **math-1998**.[27] It is first important to look at the distribution of these variables over time. For groups across migrant status, the distribution of the grades was more skewed to the left in 1998 than in 1995. Beyond their migrant status, the students tend to have lower grades at the end of lower secondary schooling than in the 1995 evaluation exams (see box and whiskers graphs in the appendix; section A.4).

The following tables show the change in the distribution of students according to their grades at these two moments of time. A set of two graphs summarize this information for the grades obtained in 1995 and 1998. If we look at the results in mathematics we can see that while in 1995, only 1.3% of the French students were placed in the lower quintile, 2.6% obtain between 0 and 20 points in 1998. With very little exception, all the migrant groups behave in this way.

---

[26] The class council is a board formed by teachers and inspectors that monitor the performance of each student case by case, and decide the track that they will follow in upper secondary education. This process will be studied in the next section.

[27] These variables are only part of the *brevet* final score. The Panel-95 only includes information about the so-called continuous control -*contrôle continu*-, which represents the average grades achieved in both subjects in 3ème and 4ème (Caille 2003: 6). These represent some 60% of the final *brevet* score.

The *brevet* scores range from 0 to 20. An algebraic transformation was done to harmonize the scales resulting in four variables ranging from 0 to 100 (new variable=[variable*100/its highest value]).

Table 5.22. Change in the distribution of students in mathematics 1995-1998

Maths 1995	0-20	21-40	41-60	61-80	81-100	Total
French	1.33	6.61	25.85	42.89	23.32	100 (12,107)
1st immigrant	5.93	15.98	35.57	32.47	10.05	100 (338)
Mixed	1.54	6.75	26.87	43.25	21.59	100 (1362)
2nd immigrant	3.49	16.69	41.78	29.58	8.47	100 (1606)
Total	1.69	7.90	27.84	41.28	21.29	100 (15,463)
Maths 1998	**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total**
French	2.58	18.12	42.33	30.77	6.21	100 (9925)
1st immigrant	5.47	25.78	47.66	17.58	3.52	100 (256)
Mixed	3.28	20.24	41.42	28.96	6.09	100 (1067)
2nd immigrant	7.08	31.27	40.59	18.10	2.96	100 (1116)
Total	3.11	19.65	42.20	29.20	5.85	100 (12,634)

Legend: N (row percentages).

As the graphs below show, fewer students occupy the upper and middle quintiles three years after the cohort entered lower secondary schooling.

Graph 5.7. Distribution of the grades in maths in 1995
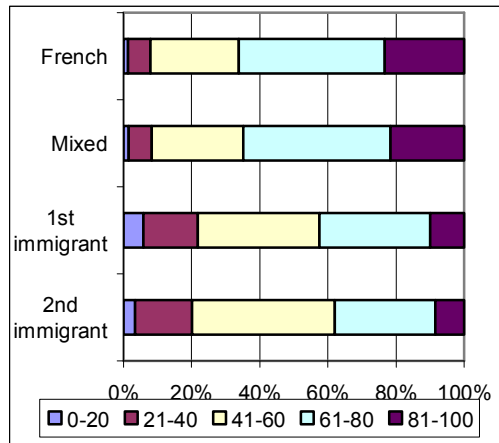
Graph 5.8. Distribution of the grades in maths in 1998
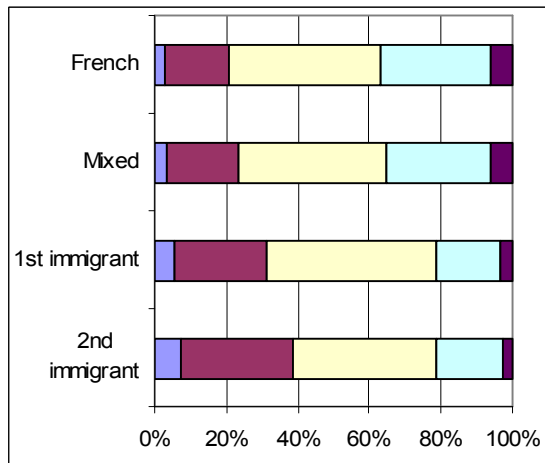
If we turn to the grades in French we can see that this change has been more dramatic. Graphically, the central quintile (41-60) is the mode in 1998, while it was fourth (61-80) in 1995.

Table 5.23. Change in the distribution of students in French 1995-1998

French 1995	0-20	21-40	41-60	61-80	81-100	Total
French	7.34	4.64	20.92	43.51	23.60	100 (12,145)
1st immigrant	11.17	12.21	33.25	31.43	11.95	100 (385)
Mixed	6.65	4.53	20.31	44.70	23.81	100 (1369)
2nd immigrant	7.37	11.67	36.64	34.71	9.61	100 (1602)
Total	7.37	5.54	22.80	42.40	21.88	100 (15,501)
French 1998	**0-20**	**21-40**	**41-60**	**61-80**	**81-100**	**Total**
French	0.57	12.11	55.64	30.06	1.61	100 (9926)
1st immigrant	1.95	23.83	53.91	19.53	0.78	100 (256)
Mixed	0.75	13.39	54.31	30.43	1.12	100 (1068)
2nd immigrant	3.23	23.57	55.65	17.03	0.54	100 (1116)
Total	0.86	13.50	55.49	28.70	1.46	100 (12,366)

Legend: N (row percentages).

Graph 5.9. Distribution of the grades in French in 1995
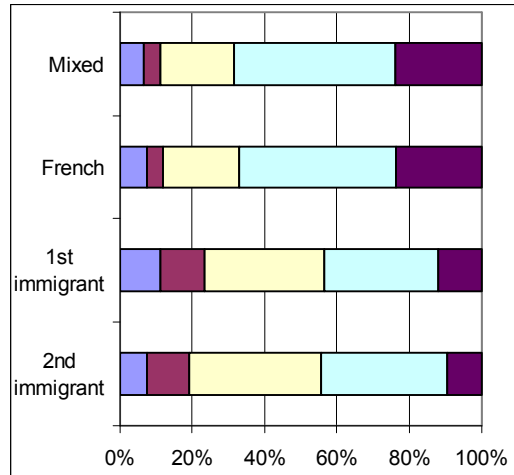
Graph 5.10. Distribution of the grades in French in 1998
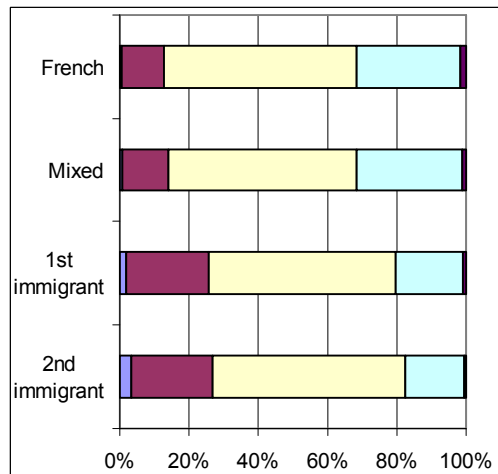
The strength of the statistical association between the type of student with respect to immigration and the attainment measures is weaker over time (in mathematics, the Cramer's V decreases from a 0.13 to a 0.10, and in the case of French, from 0.12 to 0.08).

Why might the grades worsen over time? It is difficult to know without a direct account from the teachers. Nonetheless it is very likely that the tests were tougher at the end of lower secondary than they were in the evaluation exams at the beginning of the period. It is very possible that the level of difficulty was higher in $3^{ème}$ than in $6^{ème}$ and that the materials taught also became more complex over time. The following table quantifies the average loss across groups –subtracting the average grade attained by the groups at the two moments of time under study.

Table 5.24. Scores obtained in maths and French and differences from $6^{ème}$ to $4^{ème}$

	Maths 1995	Maths 1998	M_{98}-M_{95}	French 1995	French 1998	F_{98} – F_{95}
French	66.44 (17.08)	55.84 (16,97)	-10,6	68.75 (16.21)	55.85 (12.69)	-12,9
1st imm	55.52 (19.73)	49.88 (16.86)	-5,64	58.71 (19.82)	50.73 (13.79)	-7,98
2nd imm	55.27 (17,75)	47.34 (17.88)	-7,93	59.33 (16.70)	53,42 (13.80)	-6,08
Mixed	65.85 (17.20)	50.82 (17.15)	-15,03	59,33 (16.70)	55,32 (13,03)	-4,5

Legend: mean (std. dv.).

Columns M_{98}-M_{95} and F_{98}-F_{95} quantifies the average evolution of attainment in mathematics and French language for all groups. Regarding the differential rhythm of progress of immigrant and native students, my hypothesis is that it could be due to a floor

level effect. For instance, it may not be equally easy to achieve the same ten-point increase in scores from 90/100 to 100/1000 than from 50/100 to 60/100. The distance covered in the first case is likely to result from much more effort than that in the second case. The argument is that the point of departure -or the initial level of achievement- conditions how easy it is to improve. A multivariate analysis will prove if immigrant students really progress faster than the children of French-born families (or if they lose less than those students coming from French-born families) and whether this could be explained by the floor effect hypothesis.

There are several methods for the study of change in attainment over time, but data constraints thwarted the selection of some of the most sophisticated ones. It is worth remembering that the Panel-95 only includes longitudinal information for a limited number of variables, most of which are related to the grades, attendance in special sections and other performance variables. It is for that reason that there is no variation in the majority of the independent variables that are mandatory in most longitudinal techniques. Given this constraint, the most appropriate statistical method is the time conditional model (Plewis, 1985 and 1997; Duru-Bellat and Mingat, 1989: 55 and 1997). This method requires measures of a given variable, at two different moments of time (t_0 and t_1). It then uses the first of them to explain the second. Thus, the first measure (x_{t0}) is modelled as a fixed effect to explain the distribution of the variable at another point of time (y_{t1}), for fixed values of x_0. The model is specified as follows:

$$\mathbf{Y_{t1}} = \boldsymbol{\alpha} + \boldsymbol{\beta_0}\, \mathbf{x_{t0}} + \boldsymbol{\beta_j}\, \mathbf{x_j} + \boldsymbol{\varepsilon}$$

where x_j is a dummy variable that defines two groups. β_j is then a reasonable measure of relative progress and it can be interpreted as the change in the rhythm of progress that is group-specific. However I have made a minor transformation to the standard time conditional model. Instead of using the test score in t_1 (Y_{t1}) as the dependent variable, I use a measure that combines the two variables (Δ_{t1-t2}), subtracting the grades in mathematics and French

in the evaluation (1995) and the *brevet* (1998). As a result, two variables (one for mathematics and another for French) quantify the change between the grades obtained at the beginning (1995; $6^{ème}$) and the end (1998; $3^{ème}$) of lower secondary schooling.[28] Both rates of change are normally distributed (see A.5 in the appendix).

Thus, the model specification that I propose allows us to disentangle the floor effect predicted for the grades in t_1 (1995) from the amount of change that occurred over time -bear in mind that the results do not change if using the standard time conditional model or the variation that I propose. This is the proposed model specification:

$$(\textbf{grades}_{1998} - \textbf{grades}_{1995}) = \alpha + \beta_0 (\textbf{grades}_{1995}) + \beta_j\, x_j + \varepsilon$$

As was explained in the fourth chapter, some 15% of students surveyed in 1995 were not followed by the questionnaire conducted at the end of the *collège* (*Enquête sur le déroulement de la procédure d'orientation en fin de 3ème*), which includes the results of the *brevet* exams. *Math-1998* and *French-1998* are constructed using the last score obtained by the student in the brevet. Thus, when a student repeated $3^{ème}$ once or twice, then *math-1998* and *French-1998* only register the grade obtained in the last year.[29]

---

[28] **Evolmath** = math1998 – math1995 & **evolfrancais** = French1998 – french1995. Nevertheless, the results obtained using the difference between 1998 and 1995 and the standard version of the time conditional model (performance at t_1 with a control for performance at t_2) are very similar.

[29] To avoid any noise derived from this specificity -such as the advantage of being familiar with the exam-, I reran all the models including a new control: **repeat** (set equal to 1 when the student repeated at least once and 0 if not). The inclusion of this control does not change the results shown in the following tables.

H8: Evaluation exams in maths/French (1995) $\Rightarrow$ rate of progress

+   -

The first and third columns in table 5.25 (M1 and F1) show the results of regressing the change that occurred between 1998 and 1995 in the grades obtained in mathematics and French language respectively on the migration categories. The results of the models with no controls confirm that on average immigrant students' progress at a faster rate than children from French-born families. Children from mixed parental couples do not show any significant difference from those coming from native families, while those coming from an immigrant parental couple have positive signs and significant estimates that are consistently above 3 positive points.

The second and fourth columns (M2 and F2) confirm that the significantly faster progress of immigrants under the first type of specification is explained by the floor effect described above. In other words, because immigrant students entered lower secondary school with a lower academic level in 1995, they are more likely to improve their initial results. This floor effect logic applies both to immigrants and natives, given that the estimate for the grades in 1995 is significant and needs no interactions with the migrant categories. The third regression run for mathematics (M3) and French (F3) model the non-linear effect of the grades in 1995. The quadratic term introduced in these models is statistically significant and the fit of the models slightly improves in both cases.[30]

---

[30] Graphing the expected grade under the second and third model specification in table 5.25 shows that both estimations are fairly similar in the central values of the range of grades, where the majority of the students sampled between 1995 and 1998 are concentrated. The models only produce notably different estimations in the extremes of the distribution.

Table 5.25. OLS. Rate of progress 1995-1998

		Maths M1	Maths M2	Maths M3	French F1	French F2	French F3
Mig status (ref. natives)	*1ˢᵗ imm*	4.92*** (0.97)	1.34 (0.91)	0.73 (0.91)	5.25*** (0.80)	0.75 (0.68)	0.07 (0.67)
	2ⁿᵈ imm	3.32*** (0.47)	-0.67 (0.45)	-1.01 (0.45)	3.58*** (0.39)	-0.95*** (0.34)	-1.17*** (0.33)
	Mixed	-0.34 (0.48)	-0.62 (0.45)	-0.63 (0.45)	-0.81* (0.40)	-0.71*** (0.34)	-0.68* (0.33)
Grades 1995	*Maths*		-0.34*** (0.01)	-1.18*** (0.05)			
	(Maths)²			0.01*** (0.00)			
	French					-0.46 (0.01)	-1.31*** (0.04)
	(French)²						0.01*** (0.00)
Constant		-13.3*** (0.15)	10.05*** (0.59)	35.25*** (1.68)	-15.5*** (0.12)	17.12*** (0.48)	43.99*** (1.48)
N		11889	11889	11889	11915	11915	11915
F		24.68***	435.42***	406.79***	43.85***	1279.61***	1128.15***
R^2		0.01	0.13	0.15	0.01	0.30	0.32

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

To sum up, immigrant students do progress faster than natives (in other words, they lose fewer points from 6ᵉᵐᵉ to 3ᵉᵐᵉ), but this does not seem to be related to their motivation or positive self-selection. On the contrary it seems to be the result of the fact that it is easier to improve one's grades departing from a lower threshold point than from outstanding marks.[31]

It could be argued that these models are estimated using a biased (selected) sample. The dependent variable only has valid observations for the students whose grades were registered in

---

[31] This is stable controlling for class, parental education and all the class variables used in the previous section.

mathematics and French both 6th and 3rd years and that selection can happen through other variables. For unobserved reasons, some students could have dropped out before the 3rd year. For that reason, I re-estimated the regressions using two-stage Heckman selection models (Breen, 1996), which confirm some selection. Even so, this does not change the conclusions drawn from these models since the immigration categories behave there as they do in these models –none of the immigration categories hold positive signs after controlling for their grade of departure (see A.6).

The following pages analyse the impact of the differentials in grades in the long-term educational careers of immigrant students and those from French-born family origins.

5.4. Tracking in upper secondary

After having confirmed the existence of an immigration effect in grades at the beginning of lower secondary schooling and its evolution throughout this period, this final section analyses the consequences of this unequal school performance in the tracking of students in upper secondary schooling. The aim of this section is to confirm, and where appropriate to explain, the existence of an immigrant effect in the school careers of students in the *lycée*, which is the first stage of non-compulsory education.

The first part of this section completes the description of the French school system in upper secondary schooling and introduces the consequences of the tracking of students for migrant origin students. The second part analyses differentials in the tracking of immigrant and native students focusing on two indicators: the preferences reported by the student's family and the final decision taken by the class council.

5.4.1. A brief look at to the consequences of the tracking systems

The literature on immigration and education has consistently revealed that immigrants are disproportionately represented in the low-ability groups in the systems where the students are stratified across types of schools, (Kao and Thompson, 2003: 423-5). As I explained in chapter four, the French school system is comprehensive up to lower secondary schooling [*collège* from 6$^{\text{ème}}$ to 3$^{\text{ème}}$], and tracks the students in non-compulsory education [*Lycée* until *Terminale*].

Out of all the educational reforms undertaken by European states seeking to reduce differentials in educational attainment, comprehensive reorganization created the greatest expectations. The tracking of students according to their academic merit highlights all sort of social inequalities. Empirical research in Germany which is considered the ideal example of a tracking system, has fed this suspicion.[32] Indeed, the number of Germans that avoid the lower track –*Hauptschule*- is larger in those regions where ethnic minorities represent a larger proportion of the total population (Baker, *et al.*, 1985). Immigrant students tend to be concentrated in the *Hauptschule,* which lack social prestige and career opportunities because of its non-selective nature. Accordingly, the literature has shown that second generation immigrants are under-represented in the *gymnasium* than natives (Riphahn, 2001; Baker *et al.*, 1985). This is especially the case among Turkish immigrants (Kristen, 2000).

---

[32] In Germany primary education is universal and clears the way for a diversified system of secondary education –*Sekundarstufe*- including four types of schools: *Hauptschule* or basic school (6 years) educates mostly blue collar workers, *Realschule* or middle option (6 years) white collars and *Gymnasium* or higher track (9 years) finishes with the *Abitur* degree, required for higher education. An attempt to establish a comprehensive system took place in the 1960s in Germany –*gesantschule*-, but it never became a popular option, and it continues to be less than successful today (Leschinsky and Mayer, 1990).

In the United Kingdom, where a complete comprehensive system was established,[33] the reform did not eliminate the existence of class (Heath, 1990) or ethnic differentials (Demack, *et al.* 2000) in obtaining the GCSE.[34] Furthermore, if the goal of the comprehensive reorganization was to secure higher levels of performance amongst more able students, it did not succeed (Gray, 1990).

In France, the establishment of a comprehensive system in lower secondary schooling has not avoided the loss of students moving on to apprenticeship nor ended with the class bias in the distribution of students across the different tracks (Prost, 1990). Merle (2002) suggests that, as a consequence of the diversification of educational careers, it is important to look at the differences in the tracks followed by the students, and the empirical studies that have done so have confirmed the existence of significant class differentials in the access to each track (Duru-Bellat and Mingat, 1990: 62; Duru-Bellat and Kiefer, 2000). As the following table shows, the Panel-95 confirms these inequalities. The immigrant students from mixed parental couples present few differences compared with students from French-born families. In fact the opposite is true, first and second-generation immigrant students from non-mixed parental couples are overwhelmingly overrepresented in the vocational track (BEP).

---

[33] Rule 10/1965 promoting the comprehensive reorganization, the raise of the minimum leaving age to 16 in 1974 and the establishment of the General Certificate of Secondary Education (GCSE).

[34] Two ethnic clusters are easily identifiable in the UK. If we look at the percentage of those that get 5+A-C General Certificates of Secondary Education, the Chinese head the list with 63%; 44 for the Indians; 42 for the Whites and less than 23 for the Bangladeshi, the Blacks and the Pakistani (Demack *et al.* 2000).

Table 5.26. Natives and immigrant students across tracks

	French	1st immigrant	Mixed	2nd immigrant
Séconde général et technologique	6.715 (65.5)	154 (56.4)	764 (70.2)	615 (52.2)
Séconde professionnelle: BEP	2.971 (29.0)	108 (39.6)	274 (25.2)	512 (43.4)
CAP	572 (5.6)	11 (4.0)	50 (4.6)	52 (4.4)
Total	10,258 (100%)	273 (100%)	1,088 (100%)	1,179 (100%)

Pearson Chi^2 = 133.06***Cramer's V = 0.05.

In France, the track that a student is invited to follow is decided in a selective process called *proces d'orientation*, which takes place at the end of $3^{ème}$, the final year of the *collège*. After consultation with the families, a class council formed by teachers and inspectors decides on the basis of academic achievement, the explicit wishes of the actors and the school's norms of evaluation. Access to the academic track has since 1973 become more demanding (Prost, 1992: 155). In the 1980s the selection of students in $3^{ème}$ became the cornerstone of the French school system.

Although significant efforts have been made to simplify the process, many think that it remains considerably obscure both for the students and their families and that there are significant misunderstandings and lack of coordination even if all the actors are clear about the importance of the moment (Masson, 1997). The class council judges the students case by case, and estimates the adaptation of the students' profiles to each different track. To do so, they consider the school performance –especially in mathematics and French-, whether they repeated in lower secondary education and the families' explicit preferences

manifested at the beginning of the process.[35] The number of places available in the district's *lycée* is also a binding criterion although at the aggregate level the choice seems to be more conditioned by individual level variables rather than by school characteristics (Duru-Bellat and Mingat, 1990: 73). In principle, the families can complain if they do not agree with the class council's decision, but this rarely happens -only 343 families (3.14%) did so among those sampled by the Panel-95.

In their study of the tracking in Dijon, Duru-Bellat and Mingat (1985 and 1988) showed that families from lower social classes are less inclined towards the superior general and technological track than more advantaged ones (also in Duru-Bellat and Van Zanten, 1999: 43-47). These authors believe that the families' explicit preferences are given excessive importance and that this amplifies social-origin-related constraints. On the other hand, Vallet and Caille think that the institutionalized dialogue between families and class councils in this selective process does not have such an effect. Regarding the immigrant population, these authors have even claimed that immigrant students follow more prestigious careers controlling for the family's wish and the student's grades (Vallet and Caille, 1996: 137).[36]

5.4.2. The tracking of students in upper secondary

Are there significant differences in the tracking of immigrant and native students in upper secondary school? And, if these differences exist, *what can explain them*? As was said in chapter two, some authors suggest that low class families limit their children's educational prospects by pushing them to pursue more applied school careers that ensure their immediate integration into

---

[35] For more about the tracking of French students see Prost (1990).

[36] The authors explain this because of the faster rate of progress and the higher expectations that immigrant families place on the school system (Vallet and Caille 1996: 120-139).

the labour market. Those scholars for whom tastes for education are group specific (Pearlin, 1971; Willis, 1977; Murphy, 1981 and 1990) would say that social origin imposes a sense of conformity with low status occupations. Portes and Zhou (1993) suggest that this also happens among immigrants and ethnic minorities. But those sociologists who think that tastes do not differ across social classes explain it through the conservatism of lower class families regarding the educational options (Boudon, 1974), or its evolution to what has been called *relative risk aversion* (Breen and Goldthorpe, 1997). In this line, Duru-Bellat and Mingat (1990) suggest that there is a strong self-selection in the track followed in upper secondary because of the conservative attitudes towards education among low class families.[37] Vallet and Caille (1996: 112-139) argued that immigrant students are less likely to proceed towards the vocational tracks. This has also been specifically confirmed for certain immigrant students (North Africans, Black Africans and Turkish) even if they obtain poorer academic outcomes than their native colleagues (Felouzis, 2003: 438-9).

In order to address all these issues empirically, two new dependent variables enter into play to provide a complete description of how the tracking is decided in the *process d'orientation*. The first dependent variable corresponds to the families' preferences expressed at the beginning of this process – **family-choice**. The second dependent variable is the class council's final decision –**final-choice**. Both variables are dichotomous and take the value of 1 if the student proceeds towards the more academic track (*Seconde Générale et*

---

[37] The Panel-95 confirms that the decision of the families at the beginning of this selective process is strongly correlated to the board's choice. Out of the 10,454 valid observations, 96.4% of the families that preferred the vocational track accepted the board's proposition. There was no disagreement in 96.8% of those households that aspired to the academic track. The Cramer's V is 0.91. Only 262 the families that asked for the General and Technical lyceum were not satisfied by the board's decision.

Technologique) and 0 if he chooses any of the vocational tracks (professional *lycée* -1st year BEP- or CAP).[38] Using the family's preference and the board's choice after the selection, will allow us to see if the higher number of immigrant students choosing vocational tracks in comparison to natives is conditioned by the family's preferences or by merit. Because of the possibility of repeating school years, the information regarding the selective process that links lower and upper secondary schooling was drawn at three different moments of time, depending on whether the student repeated 3ème or not.

Table 5.27. Rate of answer to the Enquête sur la procédure d'orientation 1999/2000 and 2001

	No	**Yes**	**Total**
French	665 (6.0)	10,511 (94.0)	11,176 100
Mixed	101 (8.2)	1,123 (91.8)	1,224 100
First-immigrant	46 (14.1)	281 (85.9)	327 100
Second-immigrant	212 (14.9)	1,208 (85.1)	1,420 100
Total	1,024 7.24	13,123 92.8	14,147 100

Legend: N and row percentage.

The table above shows the rates of answers to the *questionnaire d'orientation*. Note that some 2,300 cases were lost in this part of the survey. The implications of this data-constraint will be addressed at the end of this section.

---

[38] These two alternatives were collapsed given the low number of students in CAP.

5.4.2.1. Family's first option

The differences described in table 5.26 suggest that there is a certain immigrant effect in the school careers of children in upper secondary schooling. Some argue that these differences are due to the existence of more pragmatic preferences among immigrant families, something that pushes them to be more inclined towards the vocational rather than to the academic tracks. As is known, the first movers and their families behave in a different way than their descendants because of the importance of the timing of the migration experience (Portes, 1995). First movers have to carry out significant investments to fund family reunification, travel expenses, remittances to the country of origin, housing, etc. and this may predispose immigrant families more to the vocational track than to the academic one, since the timing of this option allows them to enter into the labour market more rapidly and with more applied skills than if they go for the academic track.

This section proposes an alternative account. Many rational choice theorists argue that the student's subjective probability of succeeding is a strong factor that families consider very seriously when they make their educational choices (Breen, 1999). In view of that, the school performance of the child very likely shapes the family preferences, since parents may adapt their initial expectations according to the children chances of succeeding. This will be undertaken using two different mediating variables:

- The first is the family's estimation of the student's average success (**level-family-estimation**).[39] This variable ranges from 1 –low- to 4 –high.
- The families may lack accurate information about the students' performance, so a correction –an objective measure of attainment- is required. This could be the

---

[39] The question is as follows: <<broadly speaking, do you think that you son/daughter is 1) a student with huge difficulties, 2) a student with some difficulties, 3) a good student, 4) an excellent student?>>.

grades obtained in the *brevet* continues control, which much influences the class council. **Mean-brevet** is simply the average between the grades obtained in mathematics and French language in the *brevet des collèges* (range: 0-20).[40]

Using grades to explain school careers is a common practice in the study of class differentials in educational attainment (Erikson and Jonsson, 1996). Jackson *et al*.; (2005) have conducted a number of analyses where they try to explain the likelihood of staying in education versus dropping-out using school attainment (grades in mathematics and English) as a predictor. The authors claim that while school performance is sensitive to primary effects, any unexplained variance controlling for it is produced by secondary effects. Thus, in our case, any trace of a significant impact of the immigration categories on the likelihood of proceeding towards one track or the other could be interpreted in this direction.[41]

H9: School attainment $\Rightarrow$ dependent variable
　　　　　　　　+　　　　　　　　　+

The first model (M1), which only includes the immigration categories, confirms the existence of a significant immigrant effect in the preferences expressed by the family regarding the student's school careers. Immigrant families are more likely to prefer their offspring to proceed towards the vocational track more often than French-born families do. However, this only happens for the children of non-mixed immigrant parents, and it is only significant

---

[40] The results remained unchanged if we use the grades obtained in the evaluation exams at the beginning of lower secondary schooling. The correlation between mean in the Brevet and mean in the evaluation exams is slightly above 0.6.

[41] The authors are aware of the risks of this approach since "it is possible that an anticipatory decision […] would lead to less work being done in preparing for the examinations used to measure school performance and hence to lower performance" (2005: 9733).

in the case of second generations. Regarding the children of mixed parents, the difference indicates that they are more likely to proceed along the academic track.

Table 5.28. Logit. Family's wish at the beginning of the selective process

		Model 1	**Model 2**	**Model 3**
Migrant status (ref. native)	*1ˢᵗ immigrant*	-0.23 (0.15)	-0.10 (0.17)	0.34 (0.20)
	Mixed	0.23** (0.08)	0.18* (0.09)	0.43*** (0.10)
	2ⁿᵈ immigrant	-0.28*** (0.07)	-0.16* (0.08)	0.46*** (0.10)
School results	*Level family estimation*		1.51*** (0.04)	0.99*** (0.04)
	Mean brevet			0.57*** (0.01)
Constant		0.86*** (0.02)	-3.31*** (0.10)	-7.89*** (0.18)
N		10911	10911	10911
Chi^2		27.70***	2397.14***	4548.04***
Pseudo R^2		0.00	0.18	0.34

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

Part of this immigrant effect is explained by the children's level of attainment. Controlling for the family's perception of the student's proven skills does not much change the impact of the immigration categories in terms of sign, but decreases the size of the estimates and their level of statistical significance. We can in general confirm that level of school attainment is a powerful predictor of the family's preferences regarding the students' future

school careers, but this does not provide an explanation for the immigrant effect. Families for whom their child's chances of success are greater, express more frequently the desire to see them proceeding towards the general and technical *lycée.*

The third column introduces the objective measure of school performance. The model shows that the students' performance and their families' estimation about their performance cannot account for the differential tracking of the children of immigrant and French-born families. The introduction of this variable reverses the signs of the estimates associated with the children of non-mixed parental couples. This effect is statistically significant for the second-immigrant category. Thus, the continuation rates of the children of non-mixed parental couples conditional on prior performance indicate that they are more likely to access the *lycée général et technologique* rather than the *lycée professionnel* or the CAP. These results are stable controlling for the complete set of social-origin mediating factors presented in this chapter.

What these models appear to indicate is that immigrant families are more likely to prefer the academic track than the natives when they estimate that the student's prospects of succeeding are high. This conclusion leaves little space for explanations of the tracking of immigrant and native students related to secondary effects.

The family's estimation of the student's results is a forceful factor in the formation of their preferences independently of the family' migration status. No interactions between the immigration categories and the performance variables are significant.

As in the section that studied differences in the rhythm of progress, sample selection can be a problem if we mostly have valid observations in the dependent variable for the best students. The conclusions extracted from these models are confirmed using Heckman's selection models (see A.7.1 in the appendix).

5.4.2.2. Final track chosen

Once the family has expressed their preferences, the class council tracks students according to this desire and the academic standards reached by the student in lower secondary school. *Final-choice* is a variable that captures this decision (0 vocational; 1 academic).

International empirical research on the effect of the tracking systems has concluded that the most relevant variables in the explanation of the unequal probabilities of students from different social groups proceeding towards one track or the other are found at the individual level, especially those linked to school performance (Jones *et al*., 1995). Zietz and Joshi (2005) even argued that the students' average performance before high school is the most important predictor of the differences in educational careers in the US. In the specific case of France, Prost (1900) argued that the selection process in 3$^{\text{ème}}$ is strongly determined by the student's performance -especially the scores in mathematics and French- as well as by the number of years spent in lower secondary schooling. It is for that reason that the two main independent variables in the models run for the final tracking will be the grades obtained in the *brevet* and the number of times that the student repeated courses in lower secondary school. As before, *mean-brevet* is the average of the scores that the student obtained in the *brevet des collèges* exams in mathematics, French and the first foreign language studied. *Mean-brevet* ranges from 0 to 20. **Repeats-college** is the number of years that the student has repeated any course throughout the *collège* period. It ranges from 0 to 5. If the selection of students is solely based on their school performance, then the inclusion of these two variables will leave no unexplained variance in the immigration categories.

These are the expected statistical associations between the measures of academic performance and the tracking of students:

H10: Mean-brevet $\Rightarrow$ final choice

        +   +

H11: Repeats-college $\Rightarrow$ final choice

        +   -

If the models reveal any unexplained immigrant effect controlling for the student's school performance, there could be some secondary effects sorting students across tracks. If this is not completely explained by social origin, access to the different tracks could also be driven by some sort of prejudice against immigrant students. Something similar has already been mentioned at the beginning of this chapter. It will be remembered that the Bill 89-036 (February the 6th, 1989) on the selection of students attending special education (SES) in lower secondary suggested that immigrants were unfairly over-represented in the SES. Some authors think that teachers in problematic schools where immigrants are concentrated are aware of the particularities and stigmas of the students in these type of schools, and sometimes judge the students on this basis (Perier, 1998). It is for that reason that we must evaluate the impact of immigration in this selective process in the light of their educational attainment.

Altogether with the student's academic performance, the family's preferences are very much taken into account in the selection process in place at the end of lower secondary education and that because lower class families tend to prefer less often the more academic tracks, their children tend to follow less prestigious tracks (Duru-Bellat and Mingat, 1985 and Duru-Bellat and Van Zanten, 1999). For that reason a model will be run including the variable *family-choice*.[42] This will allow measuring the weight of the family's wish on the class council's decision at the end of the selection process.

---

[42] The correlation between *family-choice* and *final-choice* is 0.92.

H12: Family-choice $\Rightarrow$ dependent variable
+   +

The following table gives the results of the stepwise logistic regression analysis where the final decision taken by the class council is the dependent variable.

Table 5.29. Logit. Final choice after the orientation

		Model 1	**Model 2**	**Model 3**
Migrant status (ref. native**)**	*1st immigrant*	-0.41** (0.13)	0.11 (0.18)	-0.53 (0.33)
	Mixed	0.27*** (0.07)	0.57*** (0.10)	0.39 (0.23)
	2nd immigrant	-0.49*** (0.07)	0.39*** (0.09)	-0.30 (0.16)
School results	*Repeats college*		-0.54*** (0.02)	-0.51*** (0.04)
	Mean brevet		0.69*** (0.02)	0.71*** (0.04)
Family choice				7.37*** (0.19)
Constant		0.73*** (0.02)	-6.16*** (0.16)	-11.27*** (0.45)
N		11687	11687	11687
Chi^2		80.21***	5902.25***	12501.63***
Pseudo R^2		0.00	0.39	0.84

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

Initially, the first model confirms the existence of a negative immigrant effect among the children of non-mixed immigrant parents and a positive one for those children from mixed families. The children of two immigrants are more likely to be offered the vocational tracks than the children of French-born parents. The impact predicted by the *mixed* estimate is just the opposite. After controlling for the performance variables, the negative impact of coming from non-mixed immigrant families disappears. Both estimates are now positive and the predicted effect is statistically significant for the second-immigrant group. The positive effect of being grouped as mixed is now even larger. All this confirms Vallet and Caille's (1996) finding that immigrant students have more successful academic careers than natives conditional on their school performance.

The third model controls for the family's wish in the selective process. The explanatory strength of this variable is evident since its estimate is seven clear points higher.[43] Note the extremely large increase in the variance explained by this model –the pseudo R^2 boosts from 0.39 to 0.84. The introduction of this variable eliminates significant differences in the likelihood of being tracked to each branch across migration status. Thus, controlling for academic performance and the family's preference, the immigrant students and the children of French born families are equally likely to proceed towards the general and technical upper secondary institutions. It is important to remark that the inclusion of this variable does not reduce the size of the school performance estimates (it even increases the size of the grades effect). Therefore, the well-documented successful careers of immigrant students are explained by their families' ambitious preferences. If the impact of the family's preferences measure secondary effects,

---

[43] At the end of 2005, the French Prime Minister Dominique de Villepin announced that the age of admittance to apprenticeship was to be lowered from 16 to 14 (see the *Economie*-special, *Le Monde* 29th November 2005). The impact of the family's opinion for the selection of students in upper secondary education does not lend support for such a measure.

this operates equally for immigrants and for natives (the interactions between this variable and the migration categories are not significant).

The most important conclusion from this final section comes from the second model, which confirms the school performance hypotheses. Academic merit as measured by the number of years that a student repeats and the score obtained in the *brevet*, enhances the chances of proceeding towards the General and Technical Lyceum both for immigrants and natives.[44]

To end this section, I shall address a criticism that could be raised against my last block of analyses. It could be argued that there is a strong selection effect operating over time and that this can explain why I found no negative significant differences between immigrants and natives since only the best immigrant students arrive to the selection process.[45] Of course, this will invalidate the logic of my explanation for the whole of the immigrant sample given that my analysis would be based on the potentially self-selected group that reached the 3rd year. However, the appendix includes a re-estimation of these models using Heckman's selection models (see appendix A.7.2), which confirm

---

[44] In order to ease the interpretation of these findings, the appendix includes a number of graphs with some probability simulations on the effect of performance over the track chosen (A.8.2).

[45] Out of the 17,830 students who were initially surveyed, there were only 16,195 (91%) who remained in the sample by the end of this period. Out of these, 14,266 (79%) were used in the estimation of the binary logit academic versus vocational (*final-choice*). The rest of the cases were divided in two:

- 2,168 (12.2%) are not in 3ème when the survey concluded (in the academic year 2000/2001), and thus, did not fill in the *orientation questionnaire*. These students could be out of school, working or in non-official education.

- 2,535 (14.3) are not included simply because of the sampling design and attrition.

the validity of the results obtained from the logistic regressions presented above.

Summary of the results

This chapter sought to identify immigrant effects on several indicators of educational attainment, ranging from retrospective measures of school performance before secondary schooling to the grades obtained in the examinations undertaken in lower secondary, and tracking in upper secondary schooling. However, the only unexplained immigrant effect was found in the school performance of the children of immigrant and native families as measured by grades throughout lower secondary schooling.

No disadvantage was noted in the access to preschool education or in the selection for special education in lower secondary schooling. However, it might be suspected that the children of immigrant families are lagging-behind their counterparts when they finish elementary school. Regrettably, the Panel-95 does not include specific measures of school performance in elementary schooling. Anyhow, the chapter has suggested that school performance explains most of this disadvantage in elementary schooling.

Regarding lower secondary schooling, the students from immigrant households tend to obtain worse results in mathematics and French at the beginning of lower secondary schooling than the children of French-born parents. Nonetheless, a social origin approach is able to explain most of this immigrant effect through mediating variables linked to the unequal social origin of immigrant and native families. Immigrant and native families are unequally stratified in the class scheme and are also different in the amount of socioeconomic resources that they can call upon. These differences are most of what explains their poorer school performance in comparison to the children of French-born families. However, a social origin approach is insufficient to account for the whole immigrant effect. In other words, the

differential between immigrants and natives is revealed to be statistically significant at the end of this chapter. The following chapter will apply an ethnic approach to explain the remaining immigrant effect in the grades obtained in mathematics and the French language.

The chapter has also shown that immigrant students do progress faster than the children of native families throughout lower secondary schooling, so that the gap in grades decreases over time. Yet, this apparent immigrant advantage is not a pure immigrant effect, but it only seems so because on average, immigrant students depart from lower grades, and it is therefore much easier to improve departing from these points than from outstanding previous grades.

The chapter has finally shown the greater likelihood of being invited to proceed towards the vocational track among the children of immigrant families in comparison to those of French-born families is explained by the former's poorer school performance (as measured by the grades obtained in the *brevet* examinations and the number of years spent in lower secondary schooling). This seems to indicate that the immigrants' disadvantage is explained by primary rather than by secondary effects.

To sum up, the immigrant effect is reflected in school performance as measured by grades obtained in different subjects. This is enough to explain why immigrants progress faster as well as the differentials existing between immigrant and natives regarding tracking in upper secondary.

CHAPTER 6. THE ETHNIC SCENARIO

The variation in the grades obtained in mathematics and French by the children of immigrant and native households, were the only indicator of attainment which the previous chapter could not satisfactorily explain. The fifth chapter has shown that an explanation based strictly on the different social origin of immigrant and native households can account for a considerable share of this immigrant effect. The aim of this chapter is to check whether ethnicity and ethnic-related factors can account for this remaining unexplained variation.[1] In order to do so, the following pages present the empirical test of the theories reviewed in chapter three on ethnic disadvantage in education. For details about the operationalization of ethnicity the reader may return to chapter four.

It may be remembered from the introduction that the ethnic approach to the explanation of educational disadvantage suggests the existence of ethnic group-specific mechanisms that stratify students educationally. Using the logic presented in the introduction, chapter five has shown that the regression coefficient for social origin is $\beta_{social\ origin} \neq 0$, and this chapter will test whether $\beta_{ethnicity} \neq 0$. Chapter three has already provided the theoretical

---

[1] The appendix includes a re-estimation of the models shown for the remainder of the dependent variables presented in chapter five, adding ethnicity to the model specification. As will be explained later, ethnicity does not appear to be a relevant dimension to explain educational attainment.

anchor to the analyses conducted in the following pages and justifies the logic of the argument:[2]

1. Firstly, regression analyses are used to measure the size of the ethnic residuals in grades. The third chapter introduced the rich debate around the interpretation of the ethnic residual in multivariate analyses. Accordingly, the remaining of the sections tests each of these well-known explanations.

2. Secondly, the chapter will test the appropriateness of cultural arguments that suggest important differences in the preference for education across groups or in the way ethnics value of effort.

3. Following that, I shall analyse the impact of school harassment on attainment across migration and ethnic status. Ethnic groups can suffer from discrimination to a varying extent both as immigrants and ethnics. Harassment from teachers and peers is the only approach to discrimination that the datasets used in the thesis allows.

4. I shall then focus on the arguments that relate ethnic differentials to the wider social (ethnic) context as a cause of disadvantage: the child investment model, the

---

[2] There are no traces of ethnic disadvantage in the access to pre-school and elementary education or in the selection to special education in 6th (see appendix A.8).

- Regarding the number of years in preschool education, there are no ethnic residuals to be reported.

- In the time spent in elementary schooling the only groups with significant coefficients have negative signs –they repeat less often than natives: Portuguese and Indochinese. The second-immigrant estimate continues to suggest that students in this category are more likely to repeat.

- As for the likelihood of being selected for special education in lower secondary, there are no significant differences.

ethnic capital hypothesis and the modes of incorporation.

5. Knowing the importance that recent theorizing gives to the existence of peer group effects as the cause of ethnic residuals, the chapter finishes with a section devoted to the estimation of the effect of the concentration of foreigners in schools.

6.1. Is there an ethnic effect in school performance?

The first graph (6.1) shows the distribution of students across ethnicity in the grades obtained in mathematics and French at the beginning of lower secondary education. At first sight we can perceive that there is a certain ethnic variation in the school results obtained in 1995. The Northern Europeans, the French and the Indochinese appear to be the most successful groups. The Southern Europeans slightly lag-behind and the remaining ethnic groups are at the rear of this classification. The dispersion in these distributions is larger for the groups that are worse off.

Graph 6.1. Grades 1995 (maths and French). The distribution of students
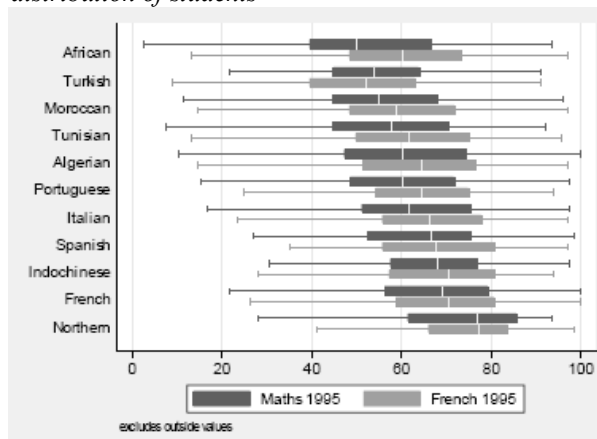
This ethnic variation can also be confirmed using a regression analysis in which the French are the category of reference.

Table 6.1. OLS. Grades. Ethnic residuals

		Maths 1995	**French 1995**
Ethnicity (ref. French)	*Algerian*	-6.03***	-5.05***
		(0.61)	(0.57)
	Moroccan	-9.86***	-8.65***
		(0.71)	(0.67)
	Tunisian	-7.96***	-6.40***
		(1.12)	(1.06)
	Portuguese	-6.29***	-4.96***
		(0.89)	(0.84)
	Spanish	-0.66	-0.07
		(1.39)	(1.31)
	Italian	-4.62**	-2.57
		(1.58)	(1.50)
	Turkish	-12.83***	-17.23***
		(1.57)	(1.49)
	African	-13.60***	-7.95***
		(1.09)	(1.03)
	North European	6.68***	5.68***
		(1.60)	(1.52)
	Indochinese	0.85	-0.07
		(1.59)	(1.50)
Constant		65.87***	68.32***
		(0.15)	(0.14)
N		1543	15501
F		59.39***	49.03***
R^2		0.03	0.03

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

African immigrants –Algerians, Moroccans, Tunisians and Black Africans- present largely negative estimates, so they enter into lower secondary schooling with a significantly worse level. Among European immigrants only the Turkish, the Portuguese and to a certain extent the Italians -in the grades in mathematics- obtain poorer results. The Spanish do not present significant differences compared with the children of French-born families, and the immigrants from Northern and Central European countries obtain significantly better results. The Indochinese present at this point no significant differences in French language but achieve better scores in mathematics.

Before interpreting the meaning of these ethnic residuals, it is important to quantify ethnicity's net impact controlling for migration status and differences in their social origin. It is the aim of this section to disentangle the effect of ethnicity, immigration and social disadvantage as sources of potential educational disadvantage. The following table presents the results of separate regression analyses for the grades obtained in mathematics and French in lower secondary schooling. The first models (M1 and F1) only give the estimates for migration status. Then, the model specifications include ethnic origin (M2 and F2) and finally the list of social origin mediating factors introduced in the previous chapter (M3 and F3). This way we shall be able to quantify the share of the unexplained immigrant effect that can be associated with ethnic specific mechanisms, discarding a spurious overestimation of ethnicity due to the unequal social stratification of ethnic groups.

The inclusion of ethnicity in the second models (M2 and F2) does not alter much the immigrant effect. The ethnic coefficients drop visibly if we compare them to the parameters obtained in tables 6.1 and 6.2. Once we control for migrant status, only the Africans, the Italians and the Moroccans in mathematics and the Moroccans and the Turkish in French represent significant sources of ethnic disadvantage. Importantly, once the immigration categories are in the model specification, the Northern Europeans and the Indochinese immigrants have significant and positive

Table 6.2. OLS. Grades. Ethnicity, immigration and social origin

		Maths M1	Maths M2	Maths M3	French F1	French F2	French F3
Migrant status (ref. natives)	1st imm	-8.99***	-8.03***	-4.87***	-7.77***	-7.85***	-6.29***
		(1.36)	(1.56)	(1.42)	(1.28)	(1.47)	(1.31)
	Mixed	-0.37	0.59	-1.12	0.37	0.38	-1.36
		(0.59)	(0.95)	(0.84)	(0.55)	(0.89)	(0.78)
	2nd imm	-9.60***	-8.02***	-3.70***	-8.18***	-7.53***	-4.05***
		(0.64)	(1.19)	(1.08)	(0.60)	(1.12)	(1.00)
Ethnicity (ref. French)	Algerian		-1.40	0.05		-0.79	0.63
			(1.20)	(1.06)		(1.12)	(0.98)
	Moroccan		-3.83**	-1.04		-2.59*	-0.00
			(1.34)	(1.20)		(1.27)	(1.11)
	Tunisian		0.52	-0.10		1.36	1.09
			(1.80)	(1.60)		(1.69)	(1.47)
	Portuguese		-1.03	2.95*		0.53	4.27***
			(1.50)	(1.33)		(1.40)	(1.23)
	Spanish		-1.03	0.04		-0.52	0.61
			(1.85)	(1.64)		(1.74)	(1.52)
	Italian		-5.38**	**-3.73***		-1.69	-0.31
			(2.05)	(1.82)		(1.94)	(1.69)
	Turkish		-3.34	2.14		-7.31**	-2.34
			(2.66)	(2.36)		(2.52)	(2.21)
	African		-7.10***	**-5.27***		-1.00	-0.27
			(1.90)	(1.68)		(1.78)	(1.56)
	Northern		7.24***	3.01		6.81**	3.50*
			(1.97)	(1.75)		(1.86)	(1.63)
	Indochinese		7.61***	8.93***		6.26**	8.43***
			(2.30)	(2.04)		(2.17)	(1.90)
Sex				-0.49			5.56***
				(0.29)			(0.27)
Preschool				0.97***			0.51**
				(0.21)			(0.19)
Class (ref. class I&II)	Class III			-0.73			-0.27
				(0.49)			(0.45)
	Class IV a b			-1.61**			-1.89**
				(0.62)			(0.57)
	Class V VI			-2.03***			-1.44**
				(0.57)			(0.52)
	Class VII a b			-4.30***			-4.03***
				(0.53)			(0.49)
	No activity			-6.01***			-4.74***
				(1.54)			(1.43)
Material deprivation	Log(income)			1.89***			1.34***
				(0.35)			(0.32)
	Accommodation			0.94***			0.46*
				(0.22)			(0.20)
	Town size			-0.37***			-0.26***
				(0.06)			(0.05)
Cultural deprivation	Art activities			1.59***			2.53***
				(0.31)			(0.28)
	Parental education			2.44***			2.14***
				(0.13)			(0.12)
Educational expectations	Ut none			-6.40***			-5.42***
				(1.24)			(1.15)
	Ut vocational			-9.53***			-8.53***
				(0.41)			(0.37)
	Ut BAC			-3.80***			-3.92***
				(0.49)			(0.46)
	Ut doesn't know			-2.82***			-2.54***
				(0.42)			(0.39)
Constant		68.43***	68.43***	56.53***	70.63***	70.63***	59.09***
		(0.18)	(0.18)	(1.36)	(0.17)	(0.17)	(1.25)
N		10258	10258	10258	10282	10282	10282
F		87.84***	25.79***	113.03***	73.51***	20.69***	124.42***
R^2		0.03	0.03	0.24	0.02	0.03	0.26

Legend: β and standard errors.   P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

estimates. The introduction of the social origin controls in the third models (M3 and F3) only leaves two negative and significant estimates associated with ethnicity in the model run for mathematics (the Italians and the Africans) and none in French. Yet, the Portuguese, the Northern, the Indochinese and those who are from Tunisian backgrounds may in the end have an advantage relative to those children born of French parents.

Interactions between ethnicity and migration status or social-origin mediating factors could hide significant ethnic residuals. Introducing the complete list of interactions would result in intractable model specifications. It is for that reason that the appendix includes the results of several t-tests conducted to ensure that the immigration and social-origin effects prevail over the ethnic one (A.9). This process involved constructing a number of dummies, crossing ethnicity with migration status and two indicators of social origin (parental education and income). It is to be expected that individuals of the same migrant status or social origin would behave similarly disregarding their ethnicity. The results suggest that ethnic residuals tend to be non-significant. Even if some cases remain unexplained under a detailed model specification (including a rather exhaustive list of controls), this represents an exception.

In conclusion, notwithstanding the introduction of ethnicity, migration status continues to dominate the immigrant effect in grades. The underperformance of immigrant students could be due to non-ethnic-related factors. An important insight from these models is that ethnicity can also be a source of advantage.

The sociology of immigration and education has a longstanding tradition of studying ethnic disadvantage using national background. However, this practice results in obscure explanations based on the interpretation of the statistical significance of national/ethnic parameters. *What do the remaining ethnic residuals mean*? Ethnicity reflects a heterogeneous noise whose interpretation is not immediately evident. The literature offers competing explanations. The political and economic context in the immigrants' home countries is known to be associated with

mobility in the host societies (Borjas, 1987). The extent of formal education in the emitting countries can also explain the association between ethnicity and parental education. The timing of the educational expansion, or even if it has occurred at all, is also an important factor. While Italy and Spain had a literacy rate below 60% in the 1920s and 1930s, Morocco and Algeria only reached 21% and 26% respectively in the 1970s at the time Portugal had 71% (Todd, 1988). Note that the largest immigration groups in France present clear differences in the amount of schooling they brought to France.

Table 6.3. Percentage of first-movers with no schooling (15 yrs or more)

	Men	Women
Algeria	44	41
South East Asia	4	2
Morocco	47	31
Portugal	8	7
Spain	12	15
Sub-Saharan Africa	23	20
Turkey	31	8

Source: Mobilité et Insertion Géographique des Populations Immigrés (Tribalat, 1995: 24).

Groups that on average obtained worse results in the evaluation exams also arrived after fewer years of enrolment in formal education –Algerians, Moroccans and Africans-, while immigrants from the South East of Asia –of whom the vast majority are Indochinese- spent more years at school before they migrated (Tribalat, 1995: 134). On the other hand, Spanish and Portuguese immigrants spent fewer years at school, and the

African immigrant population have a bipolar distribution regarding schooling -either they are illiterate or highly educated.

Alternative explanations include the group inclination towards education (Sowell, 1981) or situational factors such as discrimination (Steinberg, 1981). The incidence of collective influences is also a potential explanation (Chiswick, 1988; Borjas, 1992, Portes and Rumbaut, 1996). All these factors will be considered in the following sections.

6.2. The cultural background

The family is the main agent of primary socialization. Immigrant children and the children of immigrants are raised in a social milieu that is highly shaped –and/or constrained- by ethnicity. As I outlined in chapter three, an important part of the literature on inter-ethnic group differentials in educational attainment, suggests that culture explains why ethnic groups over or under-achieve natives' standards. Culture has traditionally been a recurrent interpretation of ethnic residuals in multivariate analysis. These arguments are common in the US but also in Europe.

> "[…] in France, the United Kingdom and the US, […] we have been able to assess how poverty was mostly due to something else than a reactionary class policy or the virulence of racial and discriminatory prejudices. Status differences between social and ethnic groups […] are caused by the degree of familial cohesion, the attachment to work and the belief that the children's future is dependent on their school success" (Jelen, 1993: 53).

Jelen (1993: 57) refers to the *retrograde* habits and traditions of African immigrants –Black Africans and Maghrebi-, whose poor school results are explained by their lack of punctuality and strictness, parental interest for school life, and the weight of gender in their social attitudes. In this view, the poor integration of the Arab and Muslim families in France is further *constrained* by

the long period many spend living under illegal status and certain cultural factors such as Islam (pp.113-142). On the other hand, the Indochinese *legend* is often explained by the positive influence of the Confucian and Mandarin tradition of sacrifice and over-investment in education (Jelen, 1993: 146-7).[3]

Testing this argument is complicated, but feasible using the Panel-95. If embeddedness in specific cultural values leads to success/failure, then within the group, families that are more embedded will be more strongly influenced by their cultural background. It is assumed that immigrant families, who do not speak French to their children, are those whose daily life is more shaped by their culture of origin. In this line, Tribalat (1995: 37; 44-5/126) has suggested that the language used to communicate between parents and children is a good indicator of the family's cultural link to their homeland. For Tribalat *et al.* (1996), fluency in French reduces the co-ethnic character of the sociability – decreases the visits of co-ethnics by between one third/one fourth-, and is a partial explanation of the educational failure of Turks, Moroccans, South East Asians and African immigrants.[4] According to the MGIS the following table is the percentage of immigrants that are fluent French speakers at their arrival in France:

---

[3] Two thirds of those immigrants arriving before the age of ten are still in the educational system after the age of sixteen (Tribalat 1995: 144).

[4] Elsewhere I have shown that in Britain speaking a different language reinforces the proximity to one's culture since it increases the parental preferences for schools with a higher concentration of co-ethnic students (Cebolla-Boado, 2007a).

Table 6.4. Percentage of fluent French speakers at arrival

	Men	Women	Total
Algeria	61	54	60
South East Asia	60	42	54
Morocco	59	39	39
Portugal	63	60	60
Spain	62	62	62
Sub-Saharan Africa	72	65	65
Turkey	34	13	13

Source: MIGS (Tribalat 1995: 39).

The few Moroccan and Turkish women who are fluent French speakers reflects a pattern of social isolation and low participation in the labour market. Bilingualism is common among the second generations -especially for Portuguese and Spanish but not for Turks (Tribalat *et al*. 1996: 190).

Language-spoken ranges from 1 (the family only uses French) to 4 if they only use another language to communicate with their children -the scaling is the original. If the language spoken at home proxies the closeness of the family's culture of origin, the more infrequent the use of French to communicate, the more important the impact of culture over educational attainment. The direction of the effect of each culture will be modelled through interactions with ethnicity.

      H3: Language-spoken $\Rightarrow$ Mathematics/French
                    +   -

Models M2 and F2 seek significant interactions between ethnicity and the language spoken at home to see if the gradient of

language-spoken differs across groups.[5] The interaction with the *African* category is negative and significant for mathematics. The same is true for the *Portuguese* both in the models run for mathematics and French but this time, the sign of the estimate is positive. This could be taken as partial confirmation of the cultural hypothesis. The students from an African ancestry whose family environment is closer to their ethnic culture get worse results. The opposite happens for the Portuguese. The remaining interactions (not presented but available upon request) are not significant. This is quite an unexpected result since neither the groups that are systematically identified in the literature as being negatively constrained by their home culture –Muslims- nor the Indochinese behave as predicted by the cultural hypothesis.[6]

It is difficult to explain why the Portuguese but not the Italians or the Spanish could be culturally more inclined towards socioeconomic success. Africans who speak another language in their daily life can be monolingual or at least not fluent French-speakers. Monolingual Black Africans come from the most deprived social strata, especially those of Wolof or Kwa origin, as well as those from Cape Verde, Comoros, Madagascar and Mauricio (Tribalat, 1995: 26). Yet, it is difficult to understand why the African interaction is not significant in the models run for French.

---

[5] The models were also run excluding the children of French-born families with no major changes in the results obtained: $\beta_{language-spoken}$ for mathematics is -0.37 (s.e. 1.44) and -0.48 (s.e. 1.42) for French language.

[6] The interactions for Northern Europeans, Indochinese and Algerians are positive and negative for Spanish, Italians, Moroccans, Africans and Turkish.

Table 6.5. OLS. Language spoken

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. natives)	*First imm*	-4.43**	-6.59***	-6.24***	-7.66***
		(1.60)	(1.68)	(1.57)	(1.65)
	Mixed	-1.14	-1.53	-1.32	-1.37
		(0.88)	(0.90)	(0.83)	(0.84)
	Second imm	-3.53**	-5.22***	-4.01***	-5.11***
		(1.16)	(1.32)	(1.12)	(1.27)
Ethnicty (ref. French)	*Algerian*	0.01	0.46	0.59	0.92
		(1.14)	(1.15)	(1.09)	(1.10)
	Moroccan	-1.01	-0.86	0.06	0.37
		(1.29)	(1.29)	(1.24)	(1.23)
	Tunisian	-0.64	-0.16	0.47	0.82
		(1.78)	(1.80)	(1.72)	(1.74)
	Portuguese	3.37*	-2.06	4.96***	-2.28
		(1.44)	(2.62)	(1.34)	(2.54)
	Spanish	0.10	0.43	0.82	1.00
		(1.74)	(1.76)	(1.54)	(1.55)
	Italian	-4.36*	-3.93	-0.75	-0.58
		(2.16)	(2.16)	(1.91)	(1.91)
	Turkish	1.61	1.06	-2.29	-2.17
		(2.77)	(2.78)	(2.81)	(2.80)
	African	-6.00**	2.29	-0.51	0.00
		(1.98)	(4.09)	(1.72)	(1.71)
	Northern	3.18	3.32	3.91*	4.01*
		(1.90)	(1.90)	(1.65)	(1.65)
	Indochinese	9.16***	9.07***	8.48***	8.75***
		(2.29)	(2.29)	(2.18)	(2.18)
Sex		-0.36	-0.37	5.71***	5.71***
		(0.31)	(0.31)	(0.29)	(0.29)
Preschool		1.02***	1.04***	0.58***	0.60**
		(0.24)	(0.23)	(0.22)	(0.22)
Social class (ref. Class I & II)	*Class III*	-0.69	-0.64	-0.34	-0.31
		(0.47)	(0.47)	(0.42)	(0.43)
	Class IV a b	-1.57**	-1.53**	-2.03***	-2.00***
		(0.58)	(0.58)	(0.54)	(0.54)
	Class V VI	-2.11***	-2.04***	-1.60**	-1.55**
		(0.56)	(0.56)	(0.51)	(0.51)
	Class VII a b	-4.50***	-4.48***	-4.34***	-4.32***
		(0.54)	(0.54)	(0.49)	(0.49)
	No activity	-6.09**	-6.04**	-4.86**	-4.82**
		(2.02)	(2.02)	(1.61)	(1.61)
Material deprivation	*Log(income)*	2.03***	1.99***	1.51***	1.46***
		(0.39)	(0.39)	(0.36)	(0.36)
	Accommodation	0.96***	0.99***	0.56*	0.57*
		(0.24)	(0.24)	(0.23)	(0.23)
	Town size	-0.39***	-0.40***	-0.29***	-0.29***
		(0.06)	(0.06)	(0.06)	(0.06)
Cultural deprivation	*Art activities*	1.61***	1.58***	2.57***	2.55***
		(0.33)	(0.33)	(0.30)	(0.30)
	Parental education	2.51***	2.54***	2.20***	2.23***
		(0.15)	(0.15)	(0.13)	(0.13)
Educational expectations	*Utility none*	-6.58***	-6.59***	-5.47***	-5.52***
		(1.60)	(1.60)	(1.28)	(1.28)
	Utility vocational	-9.76***	-9.72***	-8.80***	-8.76***
		(0.44)	(0.44)	(0.41)	(0.41)
	Utility BAC	-3.93***	-3.92***	-3.97***	-3.97***
		(0.52)	(0.52)	(0.48)	(0.49)
	Utility doesn't know	-3.15***	-3.15***	-2.82***	-2.83***
		(0.44)	(0.44)	(0.40)	(0.40)
Cultural effects	*Language spoken*		1.14*		0.53
			(0.46)		(0.44)
	*L.spoken*African*		-4.21*		
			(1.85)		
	*L.spoken*Portuguese*		3.25*		4.24**
			(1.27)		(1.29)
Constant		55.60***	54.10***	57.89***	57.13***
		(1.51)	(1.62)	(1.38)	(1.49)
N		10158	10158	10182	10182
F		107.76***	98.48***	117.28***	110.14***
R2		0.25	0.25	0.27	0.27

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

6.2.1. Ethnic differentials in the value of effort

The supporters of the cultural argument suggest that the differential value that ethnic groups attach to effort is the single most important factor leading to ethnic residuals in educational attainment. Before rejecting the cultural hypothesis, it is important to see if groups differ in the value that they attach to effort. If the significant interactions found in the models above, reflect the role of culture, then the Portuguese system of values and beliefs favour effort while it is seen as having little or no value for Black Africans.

> "[…] the differences in status across social and ethnic groups […] are due, above all, to unequal family cohesion, the sense of effort [literally *l'ardeur au travail*] and the belief that their offspring's future depends on their school success" (Jelen, 1993: 53).

The Efforts92 survey allows the testing of this hypothesis. **Effort-in-math** and **effort-in-French** are indicated by the students' agreement with the following statement: "everyone can be good in maths/French if they work". This wording gives insight into whether individuals are more or less aware of the importance of effort according to their ethnic ascription across groups. These variables range from 1 –completely disagree- to 6 –completely agree.

These are the results of two t-tests that explore if the groups differ in the value that they attach to effort as a mean to succeed in education.[7] I have chosen the Indochinese as the reference category because it is commonly identified mentioned as an example of a successful minority due to the transmission of a taste for schooling and other Confucian and Mandarin values. The tables show the t-value and the standard errors for the alternative hypotheses that the Indochinese immigrants agree with the

---

[7] Ordinal logistic regressions run for these two dependent variables confirm no significant ethnic differences.

statement more than the other groups for whom the interactions were significant.

Table 6.6. T-test. Effort in mathematics and French

	Mathematics Mean (Std error)	**Ho: mean(1)-mean(0)=0** Ha: mean(1)-mean(0)<0	**French** Mean (Std error)	**Ho: mean(1)-mean(0)=0** Ha: mean(1)-mean(0)<0
Morocco	3.95 (0.24)	-0.57	4.31 (0.03)	-0.12
Tunisia	4.25 (0.48)	-0.08	4.31 (0.03)	0.13
Africa	4.25 (0.48)	1.14	3.92 (0.31)	1.36
Indochinese	4.25 (Std.Dev: 1.66)		4.47 (0.12)	-1.28

Moroccan, Tunisian and African compared to Indochinese.
Groups value 1, rest 0. Columns 3 and 5 show the t and p value for the alternative hypothesis that the ethnic group in column 1 has a higher mean than French.
P. level * $p<.05$.

The existence of group differentials in the value of effort can be rejected. Indochinese, Moroccan, Tunisian and African students do not seem to have different beliefs towards the results of effort.

To sum up, the interactive effect associated with Africans and Portuguese could be interpreted as a preliminary confirmation of the cultural hypothesis. However we cannot discard a spurious correlation due to group migration histories or the rural-urban cleavage. The groups that systematically exemplify cultural constraints (North Africans) or advantages (Indochinese) in the literature do not present significantly different attainment levels compared to the children of French-born families.

6.3. The impact of discrimination

Discrimination, together with culture, is amongst the most commonly cited causes of ethnic differentials in status attainment. Since the 1980s many authors have rejected the capacity of discrimination to explain ethnic differentials in education (Chiswick, 1988; Murphy, 1981); yet discrimination remains a constant reference in the specialized literature. The literature review presented in chapter three suggested that there are two ways in which discrimination may affect educational attainment: labour market discrimination and harassment at schools.

Wieviorka (1992) has argued that racial discrimination is a reality, but that racial violence is marginal in comparison to other European countries. For him, French racism is not a robust ideological construct, but a powerful social reality in permanent evolution. With the end of industrial society the main axis organising social relations is no longer property versus work force, but more generally the difference between *insiders* and *outsiders*. Immigrants belong to this latter group because of their rates of marginalization and exclusion. For this author, the industrial society had an integrative element that is absent from post-industrial societies, where ascriptive identity became prominent. The first migration inflows –Italians, Spanish and first movers from the Kabylie (Algeria)- benefited from the support of the native associative movement: trade unions and other left-wing organisations incorporated some of the immigrants' demands to their political and social programs. However by the time the Turks, Moroccans, Tunisians and other African immigrants reached France, the empathy between the immigrants' demands and the leftist movements did not have its previous strength. As a result, ethnic identity has gained importance in creating supportive social entourage (p.191).[8]

---

[8] Ethnic harassment and racism could potentially be stronger where ethnics concentrate. The insiders who can avoid downward mobility

Discrimination is thought to be more intense against immigrants from Muslim majority countries, and anti-Arab myths are widespread although often camouflaged by economic arguments (Khellil, 1991: 60-70). The accommodation of Islam in France has been described as a 'pathology of the Republic'. The official Republican ideology sees laicism as a distinctiveness of France, and many Frenchmen quickly perceived Islam as a threat to their identity (Girard, 1971). Episodes like the 'Rushdie crisis' in the UK (1989) and the various and recurrent head 'scarf affairs' in the 1990s in France together with the first Gulf War (1990-1991), increased the distrust that a significant part of the public had against the Arab and Muslim immigrants. However, some argue that Islam in France would not be seen as a problem without the variable of extreme poverty in the outskirts or *banlieus* (Favell, 1998: 187). Accordingly, Muslims have traditionally been a focal group in the study of racism and discrimination in France (Whitol de Wenden, 1998: 335). Two thirds of the Algerian immigrants think that their treatment by their employers is conditioned by their ethnicity, but only one out of two non-Africans think in the same terms (Tribalat, 1995: 179-82). Tribalat also summarizes the results of a number of surveys on racial prejudice and concludes that after the Arabs, Black Africans are the most discriminated groups in France. French surveys reveal a certain *aggressiveness* of the French public against the North Africans but this reflects more a hostility against a system of habits than against a biologically defined race (Todd, 1994: 307-8).[9]

---

prefer to escape from districts with a high concentration of immigrants so they abandon entire spaces where immigrants and outsiders live together (p.160).

[9] In 1992, only 8% of French respondents confessed to dislike Spanish or Portuguese minorities, 12% to the Antillean, 18% for the Asians, 19% for the Jews, 21% for the Black immigrants and 41% for the North Africans (Consultative Commission for Human Rights, 1993: 62).

6.3.1. A note on labour market discrimination

It has been noted in chapter four that the two datasets used in this thesis block the study of the effect of labour market discrimination on educational attainment. It is for that reason that this dimension of discrimination has to be ignored in this empirical section. However it could be useful to summarize the results of a recent work published by Silberman *et al*. (2007) showing how returns to education in France may differ across ethnic origins. Using practically the same ethnic categories included in this thesis, the following graph summarizes the perception that French-born individuals with foreign-born parents have about their insertion in the French labour market.

Graph 6.2. Perceived overqualification (employed males only)
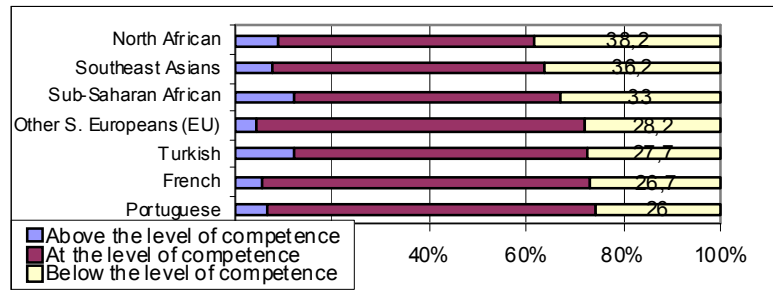
Source: Silberman *et al*. (2007).

As can be seen, the Africans (both Blacks and North Africans) and South-eastern Asians report higher levels of over-qualification in their current jobs. The differences between the children of French families and the remaining categories are almost negligible. There are grounds to believe that French employers behave differently depending on the ethnic origin of their employees. The following graph shows the percentage of

individuals that report having felt discriminated against in the French labour market. In this case, the workers from Muslim-majority backgrounds are more likely to report having suffered discrimination than the rest.

Graph 6.3. Perceived discrimination in the job market
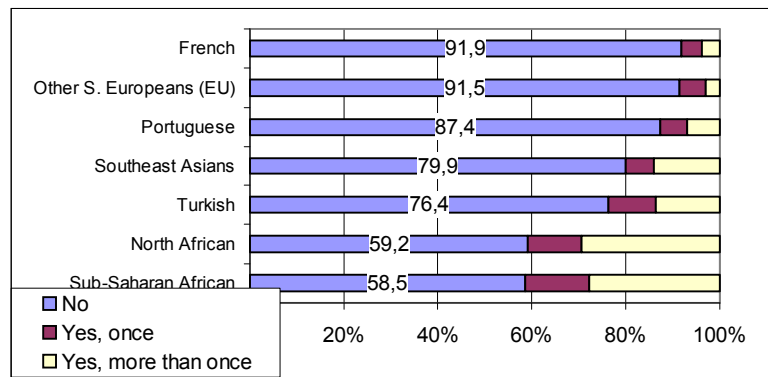
Source: Silberman *et al*. (2007).

Bear in mind that this sort of labour market discrimination is not only visible among so-called first generations, but also among the French-born children of immigrants, especially if from Africa or Turkey who are particularly vulnerable to unemployment (Meurs *et al*., 2006). To conclude, if children in secondary schooling are able to foresee the average level of job market discrimination suffered by their elder ethnic counterparts as suggested in the literature, their educational attainment could be negatively affected.[10]

---

[10] In a certain way, labour market discrimination is somehow contained in the dummies on preferences for education. If parents perceive that any option is preferable to the rest, it could be because they learnt so from their peers' experience. Parents that perceive labour

6.3.2. School harassment from peers and teachers

This section concentrates on the impact of school harassment over educational attainment. School harassment has many faces, some of which may not be overt. It may reflect the inability of the school system to cope with the cultural difference or the racial prejudices and stereotypes shared by teachers against minority students (Troyna, 1989; 1988; Troyna and Carrington, 1990; Perroton, 2000). Ethnicity and race can be a distinctive source of harassment since both are key determinants of sociability within schools (Davey, 1987, Smith and Tomlinson, 1989; Perroton, 2000).

The Panel-95 does not include information on discrimination, but Efforts92 has an alternative, although in this case we lack acceptable proxies of attainment. It only includes a subjective estimation of the school success relative to the students' classmates. It will be remembered from chapter four that Efforts92 is divided into four different files: a general one, one for students in *collège* (lower secondary), one for *lycéens* (upper secondary school) and a third one for other students. This subjective indicator of attainment is only available in the *collège* and the *lycée* questionnaires so the analysis presented below is estimated on the merged samples. **Subjective-level** ranges from 1-my level is below the average- to 5 –which is above. Of course, students may overestimate their school results; but there is no alternative dependent variable to explore the consequences of harassment on attainment. A first look to the distribution of this variable confirms that students tend to over-report their level of attainment. Only 15.31% of the students were self-placed below the mean.

As for the interesting independent variables, **teacher-harassment** values if the students have ever felt humiliated or

---

market discrimination may adjust their perception about the utility of each educational track in the open labour market.

harassed by their schoolteachers -range from 1 (never) to 3 (often). The same was asked regarding harassment from peers at school (**peers-harassment**). It is complicated to explain the causal relation between attainment and *teacher-harassment* because of potential endogeneity. Given the wording of the question, it may not be clear if the cause of the harassment is school failure. Alternatively, problematic students are more likely to report harassment instead of actually facing the consequences of their poor performance. In the case of the *peers-harassment* similar concerns may arise if, for instance, the successful students are harassed by their peer mates.

H4: Harassment (from teachers/peers) $\Rightarrow$ Self-reported level
$$+ \qquad\qquad\qquad -$$

Given the constant references to Islam in the French literature on discrimination and racism I recoded the national background into a dummy called **Muslim**. This variable values 1 when the population from the country where the father/mother was born is Muslim in more than 85% of cases, and 0 in the remaining cases.[11] Collapsing these groups into a single category of Muslims ignores the heterogeneity of the French Muslim population in terms of credo, migration history and culture of origin. Yet, French studies on Islam and education conclude that French Islamic identity has evolved in a confrontational way to face the native French identity irrespective of the heterogeneity of the Muslim groups (Limage, 2000). This conception of the Muslim identity is shared by the French Muslims themselves and the ill-informed French public

---

[11] This includes North Africa–Morocco, Tunisia and Algeria- plus Iraq, Mauritania, Egypt, Syria; and Iran, Mali, Senegal, Chad and Turkey (source: CIA).

The vast majority of Africans identify with Islam (65% goes to the Mosque regularly) while 14% of Algerians say they have no religion and 23% practises only occasionally. The study also shows that the practise of Islam is strengthened by social pressure: segregation increases the number of practicing Muslims (Tribalat, 1995: 94105-6).

from the times of the encrypted Algerian civil war to recent episodes such as the Islamist terrorist attacks.

The model specification includes a final control to avoid any noise derived from merging the samples of students in lower and upper secondary school. **Collège** values 1 if the student attends the *collège* and 0 if he goes to the *lycée*.

The second model confirms that students who feel harassed by their teachers are more likely to place themselves below the average attainment. On the other hand, being harassed by other students does not have an impact, and if anything this estimate is positive. All this applies equally to French-born students and immigrants. The third model includes two interaction terms that confirm a possible stronger impact of harassment against Muslim students -the significance of this coefficient is p. 0.06. The main harassment effect continues to be negative and significant (-0.23). The *Muslim* estimate is positive (0.62) once the interaction is included. This captures the performance of Muslim students who do not report harassment. Harassment could be a stronger disadvantage for the Muslim students resulting from the addition of the Muslim main effect to the interaction (0.62-0.48) population. Unfortunately, the quality of the measures and the assumption made about the causal order, makes this conclusion less reliable.

Table 6.7. Ordinal logit. The effect of discrimination

		Model 1	Model 2	Model 3
Migrant status (ref. natives)	*First immigrant*	0.26 (0.38)	0.16 (0.38)	0.22 (0.39)
	Second immigrant	-0.14 (0.25)	-0.15 (0.25)	-0.10 (0.26)
	Mixed	-0.09 (0.25)	-0.08 (0.25)	-0.16 (0.26)
Parental-education	*Parental-education*	0.10* (0.04)	0.10* (0.04)	0.10* (0.04)
Class (ref. class I & II)	*Class III*	0.25 (0.15)	0.23 (0.15)	0.19 (0.15)
	Class IV a b	0.31 (0.18)	0.26 (0.18)	0.23 (0.19)
	Class V VI	0.29 (0.15)	0.28 (0.15)	0.23 (0.15)
	Class VII ab	0.70** (0.26)	0.66* (0.26)	0.69** (0.26)
Log(income)		0.11 (0.08)	0.09 (0.08)	0.09 (0.08)
Ethnicity (ref. French)	*Moroccan*	0.01 (0.32)	0.05 (0.33)	
	Algerian	-0.13 (0.27)	-0.15 (0.27)	
	Tunisian	-0.12 (0.45)	-0.04 (0.46)	
	Spanish	0.25 (0.35)	0.24 (0.35)	0.42 (0.37)
	Portuguese	-0.10 (0.30)	-0.08 (0.31)	-0.07 (0.32)
	African	-0.57 (0.45)	-0.69 (0.47)	
	Indochinese	0.15 (0.48)	0.02 (0.50)	0.06 (0.50)
	Northern	-0.12 (0.44)	-0.05 (0.45)	0.05 (0.47)
	Italian	0.20 (0.33)	0.19 (0.33)	0.31 (0.35)
	Turkish	-0.01 (0.66)	0.06 (0.65)	
Cut points	*Cut point 1*	0.09 (0.98)	-0.45 (1.01)	-0.41 (1.03)
	Cut point 2	1.57 (0.98)	1.01 (1.01)	1.04 (1.03)
	Cut point 3	3.88*** (0.99)	3.34*** (1.01)	3.35** (1.03)
	Cut point 4	5.23*** (0.989)	4.70*** (1.02)	4.70*** (1.03)
College			1.80*** (0.10)	1.817*** (0.10)	1.90*** (0.11)
School harassment	*Teacher- harassment*		-0.31*** (0.08)	-0.23* (0.09)
	Peers-harassment		0.07 (0.09)	
	Moslem			0.62 (0.47)
	*Moslem*harassment*			-0.48+ (0.26)
	*College*harassment*			-0.02+ (0.01)
N		1777	1650	1650
Pseudo-R²		0.07	0.79	0.0802
Chi²		378.94***	391.02***	378.50***

Legend: β and standard errors.   P. level * p<.05; ** p<.01; *** p<.001.

The interaction between *collège* and discrimination is also significant. Thus discrimination has a larger impact in the early stages of education. This has two possible meanings: either harassment affects immature students more decisively, or those arriving to upper secondary education are favourably self-selected. Harassment from other school mates seems irrelevant for attainment. Find below the results of a number of probability estimations that ease the interpretation of the results obtained for *teacher-harassment*. Being frequently discriminated against leaves the student with a probability of 0.22 among those who place themselves slightly below the mean. This probability is only 0.15 for those who do not feel harassed. The first graph presents the change in the subjective estimation of attainment at each level of perceived harassment.

Graph 6.4. Change in the probability of self-placement by perceived harassment
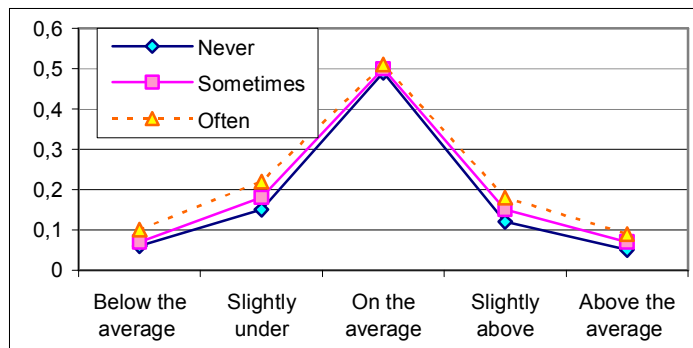
Source: M2 in table 6.9.

The effect of perceived harassment can be softened by parental education. Students from families where neither parents has any formal education, have a probability of 0.25 of placing themselves

under the average, compared to the 0.20 of those students whose parents reached university.

In the previous simulation the impact of perceived harassment is not remarkable. The probability lines are similar for students who never, sometimes and often perceived it. This changes if we focus on the particular effect that it has for the Muslims (see graph 6.5). The estimation indicates that while the probability of being self-placed slightly below the average is 0.27 for Muslims who sometimes feel discriminated and 0.17 for non-Muslims in the same situation (see the graph below).

Graph 6.5. Change in the probability of self-placement when perceived harassment is often for Muslims and non Muslims
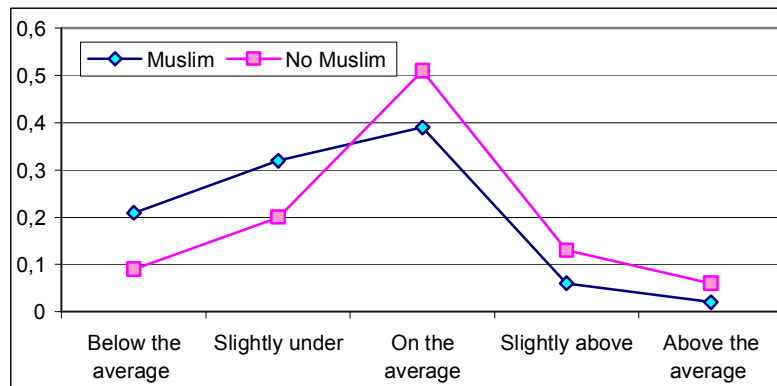
Source: M2 in table 6.9.

Here, the probability lines for Muslim and non-Muslims converge right before the *average*, being the likelihood of self self-placement under and slightly below the average smaller for non-Muslims. It is also interesting to explore the extent to which parental education works as an effective way to combat discrimination equally for Muslims and non-Muslims.

To sum up, even if the analyses conducted in this section are not fully reliable, there are reasons to suspect that school harassment is a mediating factor behind the worse school performance of certain groups, especially for students coming from Muslim majority backgrounds.

6.4. The Child Investment Model

The child investment model (Chiswick, 1988) suggests that ethnic differentials in educational attainment arise as a consequence of the implicit and explicit parental investments in the home-produced components of child quality, and that the relative value of quality versus quantity is the single most important determinant of ethnic differentials. The success of certain ethnic groups in the US such as the Chinese, the Japanese and the Jews, is not only the result of the average level of parental education in the group, but also from differences in the number of siblings that compete for the limited household resources.

In successful groups, the preference for the quantity of children has substituted the quality. This argument is inspired by Becker's (1993) idea of a trade-off between quantity and quality of children. It is obvious that if parents have more children, their investment *per capita* decreases. Families make calculations to determine the optimal number of children, depending on the value that they attach to the children's quality in terms of education, health, etc. This optimal number of children –quantity- is the point where the marginal utility and the marginal costs of children converge (Becker, 1993: 266-7).[12] The trade-off between the *quantity* and the *quality* of the children is as relevant for wealthy families as it is for the low and middle classes, for whom financial restrictions are more important (Becker and Thomes, 1993). Although this operates across ethnic origin, Chiswick suggests that

---

[12] Costs are net expenditures on the children's rearing.

the price of children is determined by fundamental ethnic factors such as the psychic cost that certain religious credos impose regarding fertility control.

Chiswick explains variation over time regarding the average levels of social mobility of the ethnic groups. The following two tables present the distribution of female labour market participation and number of siblings per household across ethnic groups. These two variables could shed some light on how inter-ethnic group differences in grades correlate with the broader household strategies. But child rearing is 'time intensive' or 'goods intensive' depending on the children's age (Chiswick 1986b). For that reason, whether the mother works and when matters, so that the impact of the mothers' involvement in the labour market could not be positive.

Table 6.8 Crosstabs. Percentage of mothers in the labour force

	% of mothers in the labour force	Chi^2
Algeria	39.56	143.2***
Europe (Western)	63.59	1.2
Indochina	54.61	1.5
Italy	56.10	0.6
Morocco	24.26	326.5***
Portugal	64.19	3.5*
Spain	56.08	07
Sub-Saharan Africa	46.98	20.9***
Tunisia	37.13	50.1***
Turkey	11.45	126.7***
French	64.52	474.3***

Note: Each row refers to a cross tabulation.
Ethnic group in label values 1, rest 0. Column 3 shows the Pearson Chi^2 and p. value in cross-tabulation.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

The cross tabulation reveals large differences in female labour market participation across groups. These differences range from the scarce representations (11%) of Turkish women in the labour force to 64% among the Portuguese, Northern European and French groups. Women from Muslim-majority countries are less likely to work outside the household. 75% of Moroccan mothers, 88% of the Turkish and over 60% of the Algerians and Tunisians do not do it. The low percentage of mothers working in these groups, matches with the lower grades obtained by students from these origins in the evaluation exams. This preliminarily finding confirms the child investment hypothesis, although the successful *Indochinese* also come from families with lower levels of female labour market participation (54%) or at least below the Portuguese, the French and the Northern Europeans (64%). The Indochinese female labour market participation is similar to that of the Spanish and Italian immigrants.

The thesis now turns to focus on group differences in fertility rates. Tribalat *et al*. (1991: 120-2) have said that couples farmed in France after 1960, had fewer children, although this is more evident among Portuguese women. This study also suggests that there are no differences in the fertility rates of mixed and native couples. According to the Panel-95 the groups differ significantly along this dimension (see table 6.11).

Table 6.9. T-test. Number of siblings

	Number of siblings Mean (Std error)	**Ho: mean(1)-mean(0)=0 Ha: mean(1)-mean(0)<0**
Algeria	3.87 (0.01)	-23.98***
Europe (Western)	2.49 (0.09)	0.99[13]
Indochina	3.56 (0.15)	-7.24***
Italy	2.64 (0.12)	0.97
Morocco	4.46 (0.08)	-31.74***
Portugal	2.57 (0.05)	2.65[14]
Spain	2.55 (0.09)	1.79[15]
Sub-Sah Africa	4.03 (0.14)	-16.60***
Tunisia	3.70 (0.13)	-10.65***
Turkey	4.15 (0.14)	-11.57***
France	2.55 (Std.Dev .0.19)	

Column 3 shows the t and p value for the alternative hypothesis that the ethnic group's mean (column 1) larger than French.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

Sub-Saharan and North Africans, Turkish and Indochinese parents have an average of over 3.5 siblings per household which is clearly is above the French (2.6). In this ranking, the *Indochinese* are again closer to the groups that perform worse in terms of school attainment. On the other hand, Southern and Northern European immigrants are closer to the natives' average. The child investment argument does not fit with the pattern shown by the Italians who as we have seen before obtained poorer scores than Indochinese and Northern Europeans.

---

[13] Ha: mean(0)-mean(1)>0: t.value=2.634***.
[14] Ha: mean(0)-mean(1)>0: t.value=2.653***.
[15] Ha: mean(0)-mean(1)>0: t.value=1.786*.

The inclusion of the number of siblings and female labour market participation in our models can reveal the extent to which the cultural differences detected in the previous section are mediated by group differences in fertility rates and female participation in the labour market.

In order to proxy the relative position of the family in the trade off between quantity and quality of children, I shall use the number of siblings and the female labour market participation. **Number-of-siblings** is an ordinal variable that ranges from 0 to 20. It records the number of children per household, excluding the student. Fewer siblings per household, is associated with a preference for the quality of children, since they will have to compete less for parental resources and thus their chances of succeeding will be higher.

$$\textbf{H3}: \text{Number-siblings} \Rightarrow \text{Mathematics/French}$$
$$+ \qquad\qquad\qquad +$$

Mother-works values 1 if the student's mother is working (1) or unemployed, retired or inactive (0). Children whose mother works outside the household would require more resources to succeed in education. The impact of female labour market participation in school attainment models is obscure. Educated women participate more often in the labour market. This increases the financial resources available at the household level. But female education, which increases the likelihood of labour market involvement, also increases the stock of cultural resources obtainable. Female labour market participation is also an inverse function of her partner's education and occupation.

$$\textbf{H3}: \text{Mother-works} \Rightarrow \text{Mathematics/French}$$
$$+ \qquad\qquad\qquad -$$

The evidence shown in the following table confirms both hypotheses. The children of mothers who work tend to obtain

higher grades. The positive effect of *mother-works* indicates that students in lower secondary school are at the stage where childrearing is goods rather than time-intensive. On the other hand, coming from a family with fewer children is positively associated with attainment. Indeed, it seems that families for whom the relative importance of the quantity of children is lower, value more the children's quality. Both effects are large and highly significant.

The introduction of these two variables in the model specification has no impact for the *first-immigrant* students and a limited importance for the *second-immigran*t type of children. However, the most visible change happens in the cultural interactions in the model run for the grades in mathematics. This means that part of the so-called 'cultural effects' operate through the cleavage between more and less traditional family strategies. If culture constrains educational attainment it is not through the specific values and beliefs about the value of effort, but through the strategies of family organization.

The models also sought significant interactions between the ethnic groups and the female labour market participation in the models run for mathematics. The only significant interactive term is that with the Tunisian national background. The impact of female labour market participation is clearly more beneficial for Tunisian students than for the children of French born families. No interactions are significant between the ethnic parameters and the number of children per household. To sum up, the child investment model is able to account for a certain share of the unexplained variation in terms of educational attainment, but it seems to work equally for immigrant and native families. It represents a good interpretation of the mechanism that operates behind certain cultural constraints.

Table 6.10. OLS. Grades. Child Investment model

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. native)	*First immigrant*	-6.70*** (1.70)	-6.13*** (1.71)	-7.97*** (1.67)	-7.61*** (1.68)
	Mixed	-1.49 (0.90)	-1.57 (0.90)	-1.38 (0.84)	-1.46 (0.84)
	Second immigrant	-5.18*** (1.33)	-3.99*** (1.33)	-5.08*** (1.28)	-4.04** (1.29)
Ethnicity (ref. French)	*Algerian*	0.40 (1.16)	0.86 (1.15)	0.99 (1.10)	1.49 (1.10)
	Moroccan	-0.89 (1.30)	-0.37 (1.30)	0.29 (1.24)	0.82 (1.24)
	Tunisian	-0.21 (1.81)	-3.44 (2.81)	0.80 (1.74)	0.85 (1.75)
	Portuguese	-2.09 (2.62)	-1.85 (2.63)	-2.32 (2.54)	-2.09 (2.52)
	Spanish	0.39 (1.77)	0.11 (1.75)	0.99 (1.55)	0.60 (1.55)
	Italian	-3.97 (2.16)	-4.24* (2.14)	-0.58 (1.92)	-0.76 (1.92)
	Turkish	0.96 (2.79)	1.08 (2.75)	-2.18 (2.80)	-2.11 (2.78)
	African	2.30 (4.09)	1.40 (4.23)	0.01 (1.71)	0.74 (1.75)
	Northern	3.30 (1.90)	3.25 (1.91)	4.08* (1.65)	3.98* (1.64)
	Indochinese	8.70*** (2.32)	8.42*** (2.28)	8.41*** (2.20)	8.32*** (2.17)
Sex		-0.37 (0.31)	-0.42 (0.31)	5.69*** (0.29)	5.65*** (0.29)
Preschool		1.05*** (0.24)	1.00*** (0.23)	0.61** (0.22)	0.59** (0.22)
Social class (ref . class I & II)	*Class III*	-0.64 (0.47)	-1.07* (0.47)	-0.30 (0.43)	-0.67 (0.43)
	Class IV a b	-1.53** (0.58)	-1.90** (0.59)	-2.00*** (0.54)	-2.33*** (0.54)
	Class V VI	-2.05*** (0.56)	-2.74*** (0.57)	-1.56** (0.51)	-2.13*** (0.52)
	Class VII a b	-4.49*** (0.54)	-4.70*** (0.54)	-4.31*** (0.49)	-4.48*** (0.49)

Table 6.10. OLS. Grades. Child Investment model (continues)

		Maths-M1	Maths-M2	French-F1	French-F2
	No activity	-6.07***	-5.07*	-4.84**	-4.09**
		(2.02)	(1.99)	(1.61)	(1.58)
Material deprivation	*Log(income)*	2.02***	1.53***	1.48***	1.12**
		(0.39)	(0.39)	(0.36)	(0.36)
	Accommodation	0.97***	0.93***	0.55*	0.52*
		(0.24)	(0.24)	(0.23)	(0.23)
	Town size	-0.40***	-0.43***	-0.29***	-0.32***
		(0.06)	(0.06)	(0.06)	(0.06)
Cultural deprivation	*Art activities*	1.59***	1.62***	2.55***	2.58***
		(0.33)	(0.33)	(0.30)	(0.30)
	Parental education	2.53***	2.31***	2.22***	2.05***
		(0.15)	(0.15)	(0.14)	(0.13)
Educational expectations	*Utility none*	-6.51***	-6.42***	-5.32***	-5.20***
		(1.61)	(1.60)	(1.28)	(1.27)
	Utility vocational	-9.71***	-9.70***	-8.76***	-8.75***
		(0.44)	(0.44)	(0.41)	(0.41)
	Utility BAC	-3.93***	-3.95***	-4.02***	-4.08***
		(0.52)	(0.52)	(0.49)	(0.48)
	Utility doesn't know	-3.14***	-3.20***	-2.82***	-2.88***
		(0.44)	(0.44)	(0.40)	(0.40)
Cultural effects	*Language spoken*	1.16*	1.49**	0.53	0.83
		(0.46)	(0.46)	(0.44)	(0.44)
	*L.spoken *African*	-4.25*	-3.44		
		(1.85)	(1.99)		
	*L.spoken *Portuguese*	3.23*	2.41	4.26***	3.56**
		(1.27)	(1.27)	(1.29)	(1.27)
Child Investment	*Mother works*		2.02***		1.16***
			(0.36)		(0.33)
	*Mother works *Tunisian*		6.71*		
			(3.07)		
	Number siblings		-0.82***		-0.89***
			(0.16)		(0.16)
Constant		54.12***	56.66***	57.20***	59.99***
		(1.62)	(1.67)	(1.49)	(1.55)
N		10141	10141	10166	10166
F		97.72***	90.71***	109.61***	104.57***
R2		0.25	0.26	0.27	0.28

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

6.5. Ethnic capital and ethnic segregation

It will be remembered from chapter three that some authors suggest a long-lasting role of ethnicity among the most recent migration waves that have arrived to the US, in opposition to those who argued that wage convergence with natives occurred in consonance with the time of residence. In the first line, Borjas (1992a) main theoretical contribution is the concept of *ethnic capital*, which summarizes the idea that parental investments are more or less effective depending not only on the type and amount of resources, but also on the quality of the ethnic environment where the child lives. For Borjas, the environment has a greater importance for immigrants than for natives because of frequent contacts between co-ethnics. The model is inspired in the externalities at the heart of the literature on human capital and economic growth, as well as with the notions of social capital and the neighbourhood effects and peer-pressures (Borjas, 1995: 372-3). Borjas recommends complementing the classical equation where individual status is regressed on parental status:

$$y_{t+1} = \beta_0 + \beta_1 y_t + \varepsilon$$

with a new parameter that models the position of the ethnic externality in the status attainment process:

$$y_{t+1} = \beta_0 + \beta_1 y_t + \beta \breve{Y}_t + \varepsilon$$

where $\breve{Y}_t$ is the average value in a given indicator –education, occupation, income, etc.- among the parents' co-ethnic generation or what Borjas calls ethnic capital. Borjas argues that the son's expected skills of the average father in ethnic group j, are given by:

$$E(y_{t+1}) = (\beta_1 + \beta_2)\, \breve{Y}_t$$

I have already criticized the barely rigorous operationalization of $\breve{Y}_t$ to proxy the quality of the ethnic environment in favour of a more geographically limited proxy of the environment quality. Borjas tested the effect of ethnic capital on educational and occupational attainment and wage differentials. The following tables give a rough picture of the average distribution of education (Panel-95) and income (Efforts92) across ethnic groups at the aggregate level:

Table 6.11. Parental education by ethnic group		
	Mean	**Std. Dev.**
Northern	5.16	1.20
French	4.26	1.46
Italian	4.03	1.42
Spanish	3.79	1.61
Tunisian	3.40	1.91
Algerian	3.28	1.90
African	3.16	2.08
Indochinese	3.01	1.97
Portuguese	2.75	1.54
Moroccan	2.57	1.87
Turkish	1.82	1.31

Source: Panel 95.

Table 6.12. Income per household by ethnic group		
	Mean	**Std. Dev.**
Northern	219.50	153,72
French	182.03	108,40
Italian	170.08	111,14
African	167.33	108,00
Indochinese	158.54	105,30
Moroccan	158.13	113,72
Algerian	157.35	127,97
Spanish	149.98	90,37
Portuguese	147.65	86,68
Tunisian	141.96	65,89
Turkish	104.08	37,19

Source: Efforts92.

The French-born and the Northern Europeans lead both classifications. In both cases the list ends with the North-Africans, the Turkish and Portuguese immigrant families. Unexpectedly, the Indochinese immigrants are only in middle range positions in both classifications. From this information I constructed a measure of **ethnic-capital** that captures the average highest parental diploma

per ethnic category. I then created a continuous variable that assigns the group average to each individual. The higher the quality of the ethnic environment in which the student grows up, the more effective the inputs that parents invest in their children's education and, thus, the higher their school performance.

$$\textbf{H3}: \text{Ethnic-capital} \Rightarrow \text{Mathematics/French}$$
$$+ \qquad\qquad +$$

The effect of ethnic capital is supposed to be stronger in ethnically homogenous environments since students living in this context have few possibilities of breaking the group boundaries. Residential segregation and the influence of ethnic capital on the process of inter-generational mobility are intimately linked. Besides, ethnic capital could be an excellent proxy for the neighbourhood average socioeconomic background (Borjas, 1995: 366). The reference model is:

$$Y_{ij} = \beta_1 y_{ij} + \beta \breve{y}_j + \Sigma \theta_k D^k_{ij\epsilon}$$

where $D^k_{ij\epsilon}$ is a dummy set to unity if person i from the j ethnic group resides in neighbourhood k. The parameter vector θ [$\theta_1, \ldots \theta_k$] models the neighbourhood fixed effect, which is assumed to be exogenous. Borjas suggests that ethnic capital models the impact of neighbourhood characteristics, but also that neighbourhood effects cannot account for the entire impact of ethnicity.

> "[E]thnicity has an impact above and beyond both parental and neighbourhood effects for persons who are frequently exposed to particular ethnic environments" (Borjas, 1995: 389).

None of the datasets used in the thesis include information about the concentration of co-ethnics in the student's environment, which would be the best option for these tests. At least the Panel-95 has information about the concentration of foreigners that can

be used as a proxy of co-ethnic concentration to test if ethnic capital has a stronger impact among individuals in areas that present a high concentration of foreign-born population where co-ethnic socialization is likely to be more frequent. Ethnic concentration is a broad phenomenon, which does not end in residential concentration. Other types of concentration such as place of work concentration incorporate to a certain extent residential concentration (Zhou and Logan, 1989) and do not block residential mobility. **No-of-foreigners** ranges from 1 to 29 depending on the percentage of foreign students in the school division in 1995, when the evaluation exams took place.

H3: N of foreigners*ethnic capital $\Rightarrow$ Mathematics/French
          +   +

These are the results of the pooled regression analyses after including ethnic capital.[16] Ethnic capital is not significant in either of these models. The estimate calculated for ethnic capital in the model run for scores in French is not even positive[17]. This new specification has a minimal effect in the immigration and ethnic categories.

---

[16] Given the low value of ethnic capital for native students, I have also run these models excluding the French category. The results did not change.

[17] A test using the Efforts92 survey proxying ethnic capital with the income per household also rejects this hypothesis [β=-5.56 (Std. error=8.80); p. value=0.53].

Table 6.13. OLS. Grades. Ethnic capital

		Maths M1	Maths M2	Maths M3	French F1	French F2	French F3
Migrant status (ref. native)	*First immigrant*	-5.87*** (1.72)	-5.35* (2.27)	-4.76* (2.29)	-7.61*** (1.68)	-8.14*** (2.08)	-7.66*** (2.10)
	Mixed	-1.61 (0.89)	-1.04 (1.87)	-1.10 (1.88)	-1.46 (0.84)	-2.04 (1.61)	-2.12 (1.62)
	Second immigrant	-3.83** (1.33)	-3.31 (1.98)	-2.84 (1.99)	-4.04** (1.29)	-4.57* (1.79)	-4.21* (1.79)
Ethnicity (ref. French)	*Algerian*	0.84 (1.15)	1.46 (2.16)	0.98 (2.15)	1.49 (1.10)	0.86 (1.88)	0.44 (1.87)
	Moroccan	-0.41 (1.30)	1.12 (4.69)	0.40 (4.68)	0.82 (1.24)	-0.73 (3.89)	-1.37 (3.84)
	Tunisian	-3.49 (2.81)	-3.02 (3.10)	-3.25 (3.12)	0.85 (1.75)	0.39 (2.02)	0.07 (2.01)
	Portuguese	2.41 (1.43)	3.76 (4.31)	2.94 (4.30)	-2.09 (2.52)	-3.43 (4.12)	-4.06 (4.12)
	Spanish	0.07 (1.76)	0.03 (1.76)	-0.18 (1.77)	0.60 (1.55)	0.64 (1.55)	0.47 (1.56)
	Italian	-4.27* (2.14)	-4.59* (2.32)	-4.61* (2.31)	-0.76 (1.92)	-0.43 (2.05)	-0.43 (2.04)
	Turkish	0.99 (2.74)	3.58 (8.13)	2.02 (8.11)	-2.11 (2.78)	-4.75 (6.90)	-6.17 (6.84)
	African	-4.93* (2.03)	-4.06 (3.27)	-4.76 (3.27)	0.74 (1.75)	-0.14 (2.75)	-0.74 (2.73)
	Northern	3.19 (1.91)	1.38 (5.67)	2.25 (5.67)	3.98* (1.64)	5.81 (4.70)	6.60 (4.68)
	Indochinese	8.35*** (2.27)	9.41* (3.87)	8.75* (3.88)	8.32*** (2.17)	7.24* (3.38)	6.63* (3.38)
Sex		-0.42 (0.31)	-0.42 (0.31)	-0.42 (0.31)	5.65*** (0.29)	5.65*** (0.29)	5.65*** (0.29)
Preschool		0.99*** (0.23)	0.99*** (0.23)	0.97*** (0.23)	0.59** (0.22)	0.59** (0.22)	0.58** (0.22)
Social class (ref . class I & II)	*Class III*	-1.11* (0.47)	-1.11* (0.47)	-1.09* (0.47)	-0.67 (0.43)	-0.67 (0.43)	-0.65 (0.43)
	Class IV a b	-1.94*** (0.59)	-1.94*** (0.59)	-1.89*** (0.58)	-2.33*** (0.54)	-2.33*** (0.54)	-2.28*** (0.54)
	Class V VI	-2.78*** (0.57)	-2.78*** (0.57)	-2.65*** (0.56)	-2.13*** (0.52)	-2.13*** (0.52)	-2.02*** (0.52)
	Class VII a b	-4.74*** (0.54)	-4.74*** (0.54)	-4.62*** (0.54)	-4.48*** (0.49)	-4.48*** (0.49)	-4.39*** (0.49)
	No activity	-5.08* (1.99)	-5.09* (1.99)	-5.17** (1.99)	-4.09** (1.58)	-4.09** (1.58)	-4.15** (1.59)
Material deprivation	*Log(income)*	1.52*** (0.39)	1.53*** (0.39)	1.57*** (0.39)	1.12** (0.36)	1.12** (0.36)	1.15** (0.36)
	Accommodation	0.93*** (0.24)	0.92*** (0.24)	0.81*** (0.24)	0.52* (0.23)	0.52* (0.23)	0.43 (0.23)

Table 6.13. OLS. Grades. Ethnic capital (continues)

		Maths M1	Maths M2	Maths M3	French F1	French F2	French F3
Cultural deprivation	*Town size*	-0.43*** (0.06)	-0.43*** (0.06)	-0.35*** (0.06)	-0.32*** (0.06)	-0.32*** (0.06)	-0.25*** (0.06)
	Art activities	1.61*** (0.33)	1.61*** (0.33)	1.63*** (0.33)	2.58*** (0.30)	2.58*** (0.30)	2.59*** (0.30)
	Parental education	2.31*** (0.15)	2.31*** (0.15)	2.27*** (0.15)	2.05*** (0.13)	2.05*** (0.13)	2.02*** (0.13)
Educational expectations	*Utility none*	-6.38*** (1.59)	-6.38*** (1.59)	-6.35*** (1.58)	-5.20*** (1.27)	-5.20*** (1.27)	-5.22*** (1.26)
	Utility vocational	-9.69*** (0.44)	-9.69*** (0.44)	-9.65*** (0.44)	-8.75*** (0.41)	-8.75*** (0.41)	-8.72*** (0.41)
	Utility BAC	-3.93*** (0.52)	-3.93*** (0.52)	-3.87*** (0.52)	-4.08*** (0.48)	-4.08*** (0.48)	-4.03*** (0.48)
	Utility doesn't know	-3.17*** (0.44)	-3.17*** (0.44)	-3.18*** (0.44)	-2.88*** (0.40)	-2.88*** (0.40)	-2.88*** (0.40)
Cultural effects	Language spoken	1.49*** (0.44)	1.50*** (0.44)	1.65*** (0.44)	0.83 (0.44)	0.82 (0.44)	0.94* (0.44)
	L. spoken *Portuguese				3.56*** (1.27)	3.55*** (1.27)	3.48** (1.28)
Child Investment	Mother works	2.00*** (0.36)	2.00*** (0.36)	2.02*** (0.35)	1.16*** (0.33)	1.16*** (0.33)	1.18*** (0.33)
	Mother works *Tunisian	6.72* (3.07)	6.70* (3.07)	6.41* (3.07)			
	Number siblings	-0.86*** (0.16)	-0.86*** (0.16)	-0.86*** (0.16)	-0.89*** (0.16)	-0.89*** (0.16)	-0.89*** (0.16)
Ethnic capital	Ethnic capital		1.30 (3.82)	0.58 (3.83)		-1.33 (3.15)	-1.98 (3.16)
	N. foreigners			-0.34 (0.49)			-0.28 (0.43)
	E capital*n. frgners			-0.03 (0.12)			-0.02 (0.11)
Constant		56.84***	51.29***	54.86	59.99***	65.64***	68.76***
	N	10141	10141	10141	10166	10166	10166
	F	96.22***	93.40***	89.73	104.57***	101.49***	97.69***
	R^2	0.26	0.26	0.26	0.28	0.28	0.28

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

The third and sixth columns (M3 and F3) discard the hypothesis of a differential impact of ethnic capital depending on the concentration of ethnics. The interaction between the ethnic

capital and the number of foreigners in the school division is negative in both models, so its effect would be the opposite to Borjas' prediction.

6.6. The Modes of Incorporation

The *modes of incorporation* (Portes and Rumbaut, 1990, 1996 and 2001) are the last theoretical explanation for ethnic differentials reviewed in chapter three and possibly the most complex. The main argument is that the way in which the host society *incorporates* first-movers from each ethnic group and successive waves of new-comers, determines their prospects and chances of social mobility. The modes of incorporation can be classified according to three factors: the immigration policies in place–time and group varying-; externalities in the labour market –discrimination-; and the existence of co-ethnic structures.

In this section I first provide a brief narrative on French immigration policy and changes over time that could have affected the mode of incorporation of consecutive immigration waves. After that, the impact of these turning points will be tested on the statistical models that explain attainment.

6.6.1. The history of immigration to France

France has one of the longest immigration histories in Western Europe (Noiriel, 1988). Between the Revolutionary and the Napoleonic Wars (1792-1815) the fertility rates collapsed, and the country experienced a serious demographic crisis that lasted throughout the 19th century, when low fertility rates remained a constant. This explains why France begun to receive immigrants even earlier than other countries where the Industrial Revolution had already started –namely England or Germany. For over a century, the country did not perceive immigration as a problem,

since foreigners living in France managed to integrate in the medium/long term (HIC, 1993: 21-3).

The first modern immigration waves to hit France arrived in the inter-War period, and especially after the Second World War. From 1945, immigration was perceived as an economic imperative and the French government favoured the arrival of manpower from neighbouring countries –excluding Germany- because of the hostility of the Communist Party and some trade unions like the CGT (*Confédération Général des Travailleurs*). In those years, the National Immigration Office (ONI) was created to recruit immigrant workers to help in the reconstruction of the country. The Italians were the most preferred group because they were thought to integrate more easily. This logic explains why Greeks, Oriental Europeans, Jews and immigrants from the French Colonies in Africa were rejected because their cultural distance from French culture could prevent their successful assimilation.[18] As a result of this political strategy to attract immigration, France doubled its stock of foreign-born workers between 1945 and 1975 (the *Trente glorieuses* years). By the 1960s, the Polish inflows were over and the arrival of Southern Europeans begun to slow (Italians) or change towards lower skill profiles (e.g. Spaniards). It was then when North Africans (Algerians, Moroccans, Tunisians) and the Portuguese began to arrive in significant numbers. The Turkish migrants began in the early 1970s, a few years before the arrival of the first Black Africans.

Before the Oil Crisis (1973) French immigration policy was characterised by the lack of control over immigration inflows. The rhythm of the arrival of migrants speeded up at the end of the 1960s (Weil, 1998). After May 1968, the French public opinion started to debate the rights and responsibilities of the foreign-born population. This debate was instigated by left-wing political

---

[18] Because of the privileged position of Algeria in the French colonial empire, the right of free mobility was recognised to the Algerians in July 1950. Bilateral agreements with other countries were signed in 1963 (Morocco, Tunisia, Portugal), 1964 (Mali, Mauritania and Senegal) and 1965 (the former Yugoslavia and Turkey).

parties, trade unions and organizations that linked these claims to the wider class struggle. From 1971 the relationship between the French state and certain immigrant movements was already articulated and had dealt with issues such as the accommodation of newcomers and the living conditions of the wider immigrant population.

After passing the restrictive 1974 immigration law, French society witnessed a massive social mobilization of foreigners asking for basic rights through sit-ins of migrant workers in almost every French town. Each new wave eased the incorporation of the newcomers thanks to the existence of a dense associative fabric (Whitol de Wenden, 1998: 91). With the advent of the 1973 economic crises and the rise of unemployment, French public opinion realized that foreign workers were settled and that their return was rather unlikely. With the new law, the arrival of Algerians dropped from 47% in 1965 to 27% in 1975 (Tribalat, 1995: 24-6). Since then, immigration inflows from the North of Africa (especialy from Morocco and Tunisia) have become more qualified. One third of Algerians that reached France after 1974 and one half of the Moroccans were at school after the age of 20. The number of immigrants from rural areas decreased. In contrast, the Portuguese and the Turkish inflows were rather unskilled (Tribalat, 1995: 157-8). After 1973 family reunification was almost the only accepted reason to cross the French borders together with a number of refugees and student visas (HCI, 1993: 61). For the rest, a formal work contract and bonafied accommodation was required to obtain residence permit (circular Fontanet, 23rd February 1972).[19] This restrictive policy increased the number of irregular immigrants, who were only properly

---

[19] From 1977 to 1978 the government introduced some 37 different restrictive measures -on entrance and residence, expulsions, student residence permission, family reunification- most of them cancelled by the *Conseil d'État* (Whitol de Wenden, 1998: 236-8).

legalized through frequent extraordinary processes starting in 1981 (Weil, 2002)

When, the Algerian-origin immigrant Djelali Kamal participated as a candidate in the 1974 presidential elections, the immigration debate jumped from the headlines to the front line of French politics. The gap between left and right widened and a bristling xenophobic tension erupted in many French cities. Many suggested that the assimilationist view of integration had to be relaxed or even substituted by a less demanding approach to ensure immigrants' insertion. Not by coincidence, it was then that the districts with a high concentration of immigrants begun to be classified as priority education areas.

The demographic weight of the descendants of immigrants (second and third generations) revealed the contradiction between the Republican traditions and the reality of immigration. In 1983 Jean Marie Le Pen founded the *Front Nationale,* an extreme right-wing party with a passionate xenophobic discourse that had great success in certain large French cities, including Paris, Lyon, Nice, Toulon and Marseille. The debate is now focused on the right of immigrants to be culturally different and their consequences for the political and symbolic unity of France rather than on control issues.

The consecutive reforms of immigration policy and the changes in the successive inflows over the last thirty-five years represent a similar context to that in the US in the mid-1960s, characterized by the restrictive 1965 Amendment and the changing ethnic composition of the migration inflows. In France, the 1974 regulations marked the end of the Spanish, Italian, and to a lesser extent Portuguese fluxes. All at once, immigrants from other national backgrounds appeared on the scene –mainly Black Africans but also Tunisians and bigger numbers of Moroccans, Vietnamese, Laotians and Cambodians. The oil crisis meant that a change in the immigration policy that could have modified the mode of incorporation of immigrants only arrived after 1974. But the modes of incorporation are also determined by the discrimination faced by the group and its community structures. *Is*

there variation in terms of the mode of incorporation of the different ethnic groups included in our analysis? The following table presents the classification of the ethnic groups' mode of incorporation according to group migration histories (note: the appendix includes a short narrative describing the groups' migration histories used for this classification; A.10).

Table 6.14. First movers according to the Modes of Incorporation in France

DIMENSION I Government Policy				
	Passive acceptance		Active support	
DIMENSION II Labour Market Reception				
	Neutral/+	Discriminatory	Neutral/+	Discriminatory
DIMENSION III Community Type				
None	Other Europeans	Black Africans		Tunisians
Working class		Algerians (a.1964)	Spanish (a.1960) Portuguese Italians	Algerians (b.1964) Moroccans
Entrepreneurial/ Professional			Spanish (b.1960) Indochinese	

The groups included in the analysis present diverging modes of incorporation. The least successful groups in school attainment coincide with those whose mode of incorporation is determined by a less receptive labour market reception (Africans and North Africans; Silberman *et al.* 2007) as opposed to the Europeans and Indochinese immigrants. The other two dimensions do not fit with the demonstrated school results. Some groups such as non-Southern Europeans, for whom no specific type of community structure is identified, have better results than others such as the Africans that tend to present negative signs. The type of government reception also divides the groups in block that do not correspond with their demonstrated school attainment.

6.6.2. The effect of changes in French immigration policy

Does this variation have an impact over the school performance of immigrant children in French schools? Addressing this question is fairly complicated, if it is possible at all. Regrettably, the Panel-95 only allows testing the effect of the changes in immigration policy using the parental year of arrival in France. To do so I gave preference to the father's date unless, for mixed marriages, the father is French-born. I then broke the continuum date of arrival into three dummies. The first of them is 1939-1960. It was in 1960s that the immigrants' range of nationalities begun to be more varied provoking a change in the view of French public opinion and the first attempts to control the fluxes. The second temporal threshold that could have distinguished the mode of arrival is 1974. This date corresponds to the Immigration Act that restricted the entrance of newcomers. After 1973, entrance to France was more dependent on family reunification (HCI, 1993: 61), and as a consequence the number of undocumented immigrants grew significantly.

Table 6.15. Grades. Effects of changes in French migration policy

		Maths-M1	Maths-M2	French-F1	French-F2
Migrant status (ref. native)	*First immigrant*	-5.79*** (1.69)	-8.06*** (2.14)	-7.49*** (1.68)	-8.56*** (2.00)
	Mixed	-1.39 (0.90)	-2.07* (0.98)	-1.48 (0.86)	-1.81* (0.91)
	Second immigrant	-3.54** (1.36)	-5.62*** (1.75)	-4.01** (1.33)	-5.08** (1.62)
Ethnicity (ref. French)	*Algerian*	0.50 (1.19)	0.40 (1.22)	1.51 (1.14)	1.23 (1.17)
	Moroccan	-0.73 (1.33)	-0.80 (1.34)	0.62 (1.27)	0.50 (1.29)
	Tunisian	-3.55 (2.85)	-3.61 (2.85)	0.66 (1.81)	0.52 (1.81)
	Portuguese	2.13 (1.45)	1.96 (1.49)	-2.21 (2.57)	-2.28 (2.59)
	Spanish	0.03 (1.76)	-0.06 (1.80)	0.67 (1.56)	0.41 (1.59)
	Italian	-3.68 (2.20)	-3.89 (2.25)	-0.04 (1.98)	-0.59 (2.02)
	Turkish	1.49 (2.74)	1.25 (2.76)	-2.20 (2.79)	-2.26 (2.79)
	African	-5.05* (2.00)	-5.68** (2.02)	-0.35 (1.85)	-0.69 (1.88)
	Northern	3.71 (2.08)	2.46 (2.18)	4.04* (1.77)	3.31 (1.92)
	Indochinese	7.22** (2.39)	6.56** (2.49)	7.47** (2.31)	7.13** (2.36)
Sex		-0.42 (0.31)	-0.43 (0.31)	5.66*** (0.29)	5.66*** (0.29)
Preschool		0.95*** (0.24)	0.94*** (0.24)	0.60** (0.22)	0.60** (0.22)
Social class (ref . class I & II)	*Class III*	-1.25** (0.47)	-1.21** (0.47)	-0.73 (0.43)	-0.70 (0.43)
	Class IV a b	-2.00*** (0.59)	-1.96*** (0.59)	-2.32*** (0.54)	-2.30*** (0.54)
	Class V VI	-2.90*** (0.57)	-2.88*** (0.57)	-2.15*** (0.52)	-2.12*** (0.52)
	Class VII a b	-4.82*** (0.54)	-4.79*** (0.54)	-4.49*** (0.49)	-4.46*** (0.49)
	No activity	-6.08** (2.00)	-6.05** (2.01)	-4.75** (1.60)	-4.69** (1.61)

Table 6.15. Grades. Effects of changes in French migration policy (continues)

		Maths-M1	Maths-M2	French-F1	French-F2
Material Deprivation	*Log(income)*	1.50****	1.50***	1.11**	1.12**
		(0.39)	(0.39)	(0.36)	(0.36)
	Accommodation	0.88***	0.87***	0.46*	0.46*
		(0.24)	(0.24)	(0.23)	(0.23)
	Town size	-0.43***	-0.43***	-0.32***	-0.32***
		(0.06)	(0.06)	(0.06)	(0.06)
Cultural Deprivation	*Art activities*	1.58***	1.58***	2.57***	2.57***
		(0.33)	(0.33)	(0.30)	(0.30)
	Parental education	2.27***	2.28***	2.03***	2.03***
		(0.15)	(0.15)	(0.14)	(0.14)
Educational expectations	*Utility none*	-6.38***	-6.37***	-5.36***	-5.38***
		(1.61)	(1.61)	(1.29)	(1.28)
	Utility vocational	-9.76***	-9.76***	-8.81***	-8.81***
		(0.44)	(0.44)	(0.41)	(0.41)
	Utility BAC	-3.99***	-3.98***	-4.17***	-4.17***
		(0.52)	(0.52)	(0.48)	(0.48)
	Utility doesn't know	-3.25***	-3.25***	-2.91***	-2.92***
		(0.44)	(0.44)	(0.40)	(0.40)
Cultural effects	*Language spoken*	1.40**	1.36**	0.84	0.86
		(0.45)	(0.45)	(0.45)	(0.46)
	L*Portuguese			3.65**	3.64**
				(1.29)	(1.29)
Child Investment	*Mother works*	1.98***	1.99***	1.16***	1.15***
		(0.36)	(0.36)	(0.33)	(0.33)
	M.*Tunisian	6.45*	6.52*		
		(3.13)	(3.14)		
	N. siblings	-0.90***	-0.90***	-0.91***	-0.91***
		(0.16)	(0.16)	(0.16)	(0.16)
Mode of incorporation (ref. French-born)	*Period 1939-1959*		2.60		3.04*
			(1.66)		(1.51)
	Period 1960-1974		2.10		0.94
			(1.28)		(1.17)
	Period 1975-1995		2.74		1.23
			(1.62)		(1.49)
Constant			57.74***	60.38***	60.36***
			57.74***	(1.57)	(1.57)
			(1.66)		
N		10022	10022	10049	10049
F		95.44***	87.66***	103.01***	94.95***
R2		0.26	0.26	0.28	0.28

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

Note that **period 1939-1960**, **period 1960-1974** and **period 1974-1995** are dummy variables whose impact is estimated against the sub sample of families with no date of arrival in France (the French-born).[20]

Only one of the dummies introduced to test the effect of changes in the migration policies is statistically significant, although it is precisely on the consensual threshold of statistical significance (1939-1959). We cannot confirm the existence of any disadvantage associated to being born in a family whose mode of incorporation could have been affected by having arrived under restrictive immigration policies. The failure of the modes of incorporation to explain the type of inequalities that this thesis address, also implies the rejection of the segmented assimilation hypothesis, whose three determinants are closely linked to the parental mode of incorporation (Portes and Zhou, 1993).

6.7. The effect of immigrant concentration on attainment

The theoretical literature on immigration, ethnicity and education points to social pressures as important mediating factor in the explanation of the immigrant disadvantage (Borjas, 1992 and 1995; Portes and Rumbaut, 1996; Portes and Hao, 2005). It is for that reason that even though the effect of peer-pressures is relevant both for immigrants and natives, the importance of the topic in the immigration literature makes it worth exploring it at the end of this chapter.

The idea that peer-pressures resulting from the concentration of immigrants have a negative impact on attainment, has reached the Media. The concentration of foreign students has been blamed by the French Media for having a negative impact on educational attainment and for constraining the equality of educational

---

[20] The effect of the original parental time since arrival is not significant in these two models.

opportunities especially after the riots that many French cities witnessed in November-December 2005.[21] Many pre-suppose that ethnic concentration is the consequence of a proactive desire to segregate. An opinion article published by *Le Monde* (29th November 2005) argued that:

> "[B]e it an urban or a school ghettoization, it is not the result of any policy, but rather the consequence of a social movement, of its fragmentation, the distance [imposed by those] who wish to organize within the smaller category to which [they] belong to, in the name of an anxiety for declassment".

But, *can we assume such a proactive attitude in favour of segregating*? Recall from chapter three that the school map in France is highly segregated (Felouzis, 2003; Felouzis *et al.*, 2005) especially in the case of the Muslim population. The Panel-95 confirms the unequal concentration of the immigrant groups:

---

[21] «What we understand by ethnic segregation at schools is a strong concentration of immigrant students –or the population issued from previous immigration fluxes. […This] has negative effects for school attainment and their personal identity. This means that in these schools, the students feel rejected since they attend establishments avoided by other students, so they perceive that they are at the margins of French society. […] their school progression is weaker than students elsewhere. In other words, we learn less in these schools, and this is why we speak about ghettos or school segregation» (Felouzis in lemonde.fr, 6th October 2005).

Table 6.16. Immigrant concentration (at the student's school division) by national background

	Average concentration (Std error)	Ho: mean(1)-mean(0)=0 Ha: mean(1)-mean(0)<0
Turkey	5.02 (0.323)	-16.48***
Morocco	3.99 (0.152)	-25.84***
Tunisia	3.49 (0.233)	-12.59***
Sub-Sah Africa	3.36 (0.190)	-13.51***
Indochina	3.28 (0.287)	-9.00***
Portugal	3.03 (0.154)	-12.44***
Algeria	2.88 (0.113)	-16.58***
Italy	1.89 (0.203)	-1.76*
Spain	1.78 (0.167)	-1.38
Europe (Western)	1.56 (0.162)	-0.30
France	1.04 (Std. Dev 0.19)	REFERENCE

Column 3 shows the t and p value for the alternative hypothesis that the ethnic group in column 1 has a higher mean than French.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

The groups that have consistently been associated with poorer school performance, seem to attend schools with a higher concentration of foreigners. The Turkish, Moroccans, Tunisians and Africans lead this list. Indochinese, Portuguese and Algerians are also significantly more concentrated than the rest. Once more, the Indochinese behaved unexpectedly given their rates of school success. They do not appear to be disadvantaged even though they tend to be enrolled in highly concentrated schools. With the only possible exception of the Italians, students from other European countries are less segregated.

There are many theoretical and methodological difficulties in the empirical study of social interactions -see Duncan *et al*. (1997)

for a detailed description. To begin with, not every correlation between individual and collective behaviour is the result of micro-interactions. Only when individual behaviour has a direct influence in his or her peer group, can the externalities in place can legitimately be labelled as social interactions. Otherwise, the correlation could erroneously be taken as the result of an interaction while instead it could result from the concentration of similar socio-economic profiles due to prior sorting exposure. Accordingly, Manski (1993: 30-1) differs between four phenomena:

- Endogenous effects: where the prevalence of any behaviour in some reference group influences others. For instance, educational attainment may vary with the average level of achievement of the students in the same peer-group.
- Contextual effects: where the propensity of an individual to behave in some way varies with the distribution of exogenous background characteristics in the reference group. Here attainment will vary with the socioeconomic composition of the peer group.
- Correlated individual effects: where individuals with similar characteristics tend to cluster in similar contexts. The educational attainment of the members of the group is correlated simply because the individuals are subject to the same type of influences.
- Ecological effects: where individuals in the same reference group tend to behave similarly because they face an identical institutional environment. Attainment may differ from one school to another because of the different pedagogic methods or the expertise of the school staff.

It is essential to distinguish at least the first two options from the rest, which are non-interactive phenomena. The policy implications of these alternatives are divergent. Analytically, neighbourhood estimators can become a black-box explanation. Sampson *et al*. (2002: 457-8) speak of several neighbourhood

mechanisms: social ties or interactions related to the concept of social capital; norms and collective efficacy if there is mutual trust and shared expectations; institutional resources and routine activities according to land use in the neighbourhood that allow for a different organization or routine activities (presence of schools, stores, shopping malls, multifamily residential units, etc.). Overall, it is hard to distinguish if a correlation means *contagion* – identification with a peer group which is the source of influence-, or a *socialization problem* –where adults exercise tighter control in different directions. Only contagion can be associated with the constraining role of peer pressures. Besides contagion may imply a causality problem: *do successful groups create successful group cultures, or vice-versa*?

Accordingly, the statistical significance of contextual variables can mean different things for educational attainment. It could be that individuals who do not value education are over-represented in schools in deprived districts and so the group may have a poorer attainment. In this case, contagion and conformism may spread through peer-interactions. Alternatively, it might also be that the statistical significance of contextual information is simply a consequence of an uneven distribution of resources across schools -lower ratio students/teacher, less extra curricular activities, etc. - without peer-pressures in place.

Research on peer-pressures has quickly incorporated technical innovations to overcome these serious analytical and methodological difficulties, although some scholars still question whether it is possible to estimate its impact at all (Dietz, 2002). One of the most worrying difficulties is that social spaces do not result from the random distribution of individuals since there are some prior exogenous phenomena that may cause a selection bias in the distribution of individuals across spaces –families have some degree of choice regarding, for example, the neighbourhoods in which they live (Duncan *et al*., 1997: 224). In our case family background operates as a sorting element of the students across schools and this explains why the population in an area already

share certain characteristics before interacting. This happens because, individuals tend to be geographically distributed according to factors such as budget constraints or professional opportunities (including local labour markets). Also because families can differ in their awareness of the consequences of living in deprived districts for their children, and parents that are specially ill-equipped to handle with bad neighbourhoods probably are the most likely to live with them (Duncan *et al*., 1997: 220) Consequently, individuals living, working or studying in the same district are a selected population subject to similar financial and cultural constraints. This represents a devastating obstacle for the estimation of peer-group pressures since significant contextual parameters may capture the effect of these wider social processes that sort the population geographically. Technically speaking this means that there could be a contemporaneous correlation between the contextual regressors and the error term.

The standard models of contextual effects using single equations overestimate the impact of neighbourhood variables and produce inconsistent estimators because it ignores previous sorting mechanisms assuming that the choice of the social spaces is exogenous (Brooks-Gunn *et al*., 1993; Zietz and Joshi, 2005). Seemingly, relaxing this assumption leaves few unexplained variation associated with contextual estimators. Under the presence of an endogenous variable, the single-equation estimator is biased because of the correlation between the troublesome regressor and the error term. The endogeneity of an independent variable introduces a random noise that affects the outcome and one of the regressors at a time, so its estimator captures both effects. In the general case of endogeneity, instrumental variable estimation (IVE) endogenises contextual effects and provides consistent estimations (Case and Katz, 1991; Evans *et al*., 1992; Foster and McLanahan, 1996). The logic of the IVE is to replace the troublesome regressor that is correlated with the model error, by estimates drawn from other variables that do not suffer from such a correlation. In other words, it calculates the predicted value of the troublesome regressor using a set of exogenous instruments

so that the fitted values should not be correlated with the error term. In sum, IVE replaces a defective explanatory variable with an uncorrelated one to offer a consistent estimation of the endogenous variable separating the variation that is not correlated to the error from the correlated one, which is responsible for upwardly biasing the estimator. Although the commonest IVE methods are the two stage least squares and the simultaneous equations modelling, there are several alternatives including Heckman selection models, limited information maximum likelihood and some forms of generalised methods of moments.

But IVE requires defining the troublesome variable(s) as a function of further exogenous factors. For instance, if we estimate the educational attainment of students using individual level variables and ecological information about their social (school) environment, we need to consider the existence of sorting mechanisms that determine who attends which school. Unfortunately, the data requisites for modelling these sorting-processes are not always easy to meet. Firstly, there must be an appropriate *instrument* to explain the troublesome endogenous variable (i.e. the distribution of students across schools), something that is only rarely available. Instruments must be correlated to the endogenous regressors but uncorrelated to the error term. This means that they have to capture the specificities of the peer-group (the student-body) formation process but it must not be a determinant of the educational attainment (it must be uncorrelated with the residual of the main equation). IVE will offer inconsistent estimations only if these two requisites are not jointly met.

If we want to explain the educational attainment of students using a set of exogenous individual level variables (Z) and certain contextual information such as the proportion of foreign students in each school, an instrument can isolate the variation that we are interested in -strictly coming from the concentration of foreigners- from any irrelevant noise. The contextual information is the result of some other set of exogenous variables (N) that are responsible

for the sorting processes that lead individuals from similar socioeconomic background to live/work/study together. N may refer to the aggregate levels of deprivation in the area of reference. For instance, the price of housing can concentrate foreigners in certain schools. Budget constraints may reduce the capacity of working class and immigrant families to choose their area of residence. Accordingly, the concentration of foreign students in schools is the consequence of the concentration of students from similarly deprived backgrounds and thus, the statistical significance of the concentration of foreigners in a single equation model can spuriously reflect these problems. IVE quantifies the net impact of the concentration of foreigners taking into account the non-random distribution of students across schools.

A) $\text{Education} = \beta_0 + \beta_1 Z + \beta_2 \text{Concentration} + \varepsilon$
B) $\text{Concentration} = \delta_0 + \delta_1 N + \eta$

A single equation (A) will contain a set of omitted variables (N) uncorrelated with Z but correlated with the neighbourhood characteristics or in our case, the concentration of foreigners. The result is that β_2 is inconsistent because $\text{cov}(N, \varepsilon) \neq 0$. If on the contrary, we use N as the instrument to make the contextual characteristics endogenous (B), we will produce a consistent estimator for β_2, which will only capture the net effect of the concentration of foreigners ignoring the uneven distribution of student characteristics across schools. But finding a proper instrument is vastly difficult since the instruments must not be simultaneously correlated with the stochastic disturbances. It is jointly required that:

1. $\text{cov}(N, \varepsilon) = 0$
2. $\text{corr}(N, \text{concentration}) \neq 0$ [or that $\delta_1 \neq 0$]

It is difficult to satisfy these two conditions especially if they are together. (1) imposes the exogeneity of the instrument since it must not be correlated with omitted factors from the education

equation, in which case they must be specified as independent variables in (A). Testing the first condition is highly subjective since we cannot observe ε. (2) refers to the relevance of the instrument since it compels that the partial correlation between the instrument and the endogenous variable is notable. This is to avoid 'weak instruments' which result in inconsistent and non-standard asymptotic distributions (Staiger and Stock, 1997: 564). Weak instruments are a frequent problem because of the restriction that (1) entails. We can easily know whether (2) is met or not because equations estimated using weak instruments have low F statistics.[22]

Negative peer-pressures may not only result from the concentration of foreigners but also from the broader concentration of students at risk of failing. So as to distinguish between these two sorts of social interactions, I shall include in this analysis the number of students lagging-behind that attend schools in the same division. The introduction of this new variable will allow the possibility of measuring the net effect of social interactions issued from the concentration of foreign students and not from the concentration of problematic students. The **percentage-of-students-lagging-behind** ranges from 0 to 37. Its correlation with the number of foreign students is 0.26.

The following scheme summarizes the hypotheses about the effect of contextual variables on school attainment (grades). Only one scenario implies the existence of social interactions where foreigners are involved.

---

[22] IVE of educational attainment frequently use instruments such as quarter of year births because there are few instruments available that are non-endogenous themselves (1).

Graph 6.6. Contextual effects and the problem of endogeneity
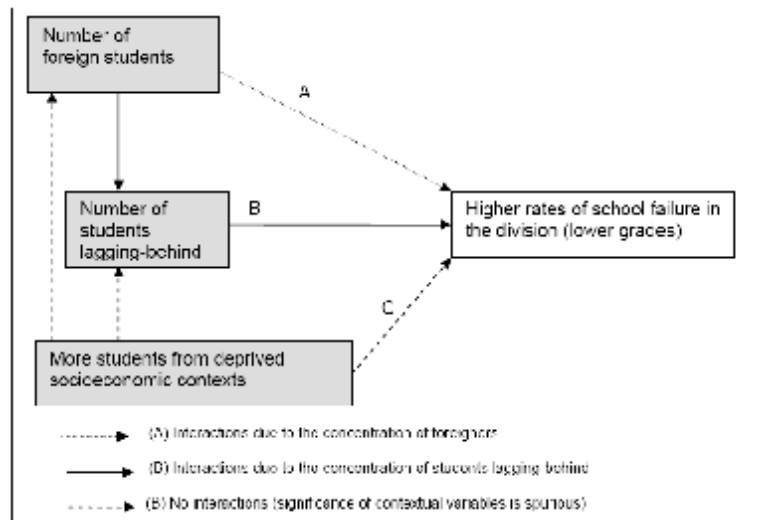
In the first scenario (A), contacts with foreigners provoke lower school results because of the exposure of students to negative peer-pressures towards school failure.

$$\mathbf{H_A}: \text{\% of-foreigners} \Rightarrow \text{Mathematics/French}$$
$$+ \qquad\qquad -$$

On the other hand, in the second (B) the concentration of foreign students only has an effect because the concentration of immigrants hides the concentration of less successful students.

$$\mathbf{H_B}: \text{\% of-students-lagging-behind} \Rightarrow \text{Maths/French}$$
$$+ \qquad\qquad -$$

Alternatively (C), it could be that these two contextual variables are endogenous to the uneven distribution of families according to their social origin, and that this explains the higher

rates of school failure in the school division. In this case, the statistical significance of the contextual variables is spurious, since we cannot ignore the prior sorting mechanisms that distribute the population unevenly across social spaces.

H_C: %foreigners/%students-lagging-behind$\nRightarrow$Mathematics/French

In order to empirically distinguish the first two scenarios from the third option, which implies a spurious relation between the contextual variables and the measures of school attainment, we need to endogeneise the context, making it dependent on the sorting processes that provoke the concentration of deprived profiles in certain areas. The identification of proper instrumental variables is always the most difficult decision to be taken by researchers using IVE. The Panel-95 offers few alternatives and those available are problematic. Within the list of possible instruments, I selected subjective measure of the neighbourhood quality and two objective measures that proxy the quality of the school environment (whether the school is placed in a priority education area, and the student body's average parental education).

Neighbourhood is an ordinal variable that registers the degree of satisfaction reported by the respondent to the Family Questionnaire regarding the district where the family resides. The assumption behind this instrument is that the families that report less satisfaction are more likely to live in deprived districts than the rest. Because of factors such as budget constrains to find accommodation, families from low socioeconomic backgrounds may cluster together in certain residential areas. This will explain why immigrants and natives from less favoured social origins live together. Some might argue that over-adaptation to the resources available can bias the answers given to *neighbourhood*. If this is the case, low class people can be more satisfied with their area of residence given equal environments. In order to cancel any noise introduced by over-adaptation, it is necessary to control for two

objective measures of neighbourhood quality. The first one is **average parental education** in the school where the student is enrolled. This variable has been directly built from the sample of students available in the Panel-95 for each school. The second objective instrument **priority education** is a dummy set equal to 1 when the student attends a school placed in so-called priority education areas (*Zones d'Éducation Prioritaire*; ZEPs).

The ZEPs are positive discrimination mechanisms for schools placed in highly disadvantaged socioeconomic environments created under the rule of the former Ministry of National Education Paul Savary (1981-1984). In this case, the system offers greater financial and cultural resources so as to increase the opportunities of students coming from less advantaged families. The criteria for defining priority education areas are strictly related to the type of public that attends the schools, in particular the concentration of individuals from culturally and socio-economically deprived origins. The educational attainment of the students in the area is not used as a defining criterion so as to avoid excluding those schools placed in disadvantaged environments whose students succeed.[23] Thus, *priority education* is a variable that covers many of the traditional instruments used in the type of analyses that endogenize contextual variables such as rates of unemployment as well as other indicators of disadvantage (Evans *et al*., 1992).

Why will priority education *serve to model previous sorting mechanisms*? The socioeconomic profile of students attending a school in a certain division is the consequence of the distribution of the families living in the nearby area according to their socioeconomic characteristics. The right to choose schools has for a long time been a controversial issue. In 1963, the Ministry of Education divided the national territory into recruitment areas for

---

[23] The results of the schools in ZEP are fairly diversified. While some achieve a demanding environment and focus on improving learning conditions, others end up being ruled by a securitary obsession (Dubet and Duru-Bellat, 200: 149-154).

secondary education –sectors for the *collèges* and districts for the *lycées*. Since then, unless exceptionally agreed, French families choosing public schools had to send their children either to the public schools in their sector of residence or to private schools. This measure called *sectorization,* sought a more efficient distribution of resources across schools -accurate information about the public in each school improves the organization. The debate about the right to choose schools was very intense during the 1980s, especially after the Savary Act (named after the cabinet minister Alain Savary, 1981-1984) was passed leaving some room to choose among schools in the area near the family's residence. In 1984, the duty of *sectorization* was annulated into five zones (Ille-et-Vilaine, Côte d'Or, Dunkerque, Saint-Étienne and Limoges). Today freedom of choice is recognized for families residing outside the *collège* sector and in principle access to any school is possible once all the families in the sector have chosen.[24] Ballion (1986: 725) argued that this resulted in the existence of an index of 'school desirability' where certain schools are frequently rejected because of their descriptive attributes –age, area, existence of wider ranges of study options- and attributes of academic success –rate of students lagging-behind and type of orientation at the end of period.[25] The consequences of *sectorization* can easily be avoided, and it is thought that the

---

[24] Ballion and Théry (1985) observed that high social-class families and good students were over-represented among those who asked for a different school to the one assigned by default.

[25] From here he concludes that there are three main types of schools. *Phare* are schools in highly demanded schools normally located in the city centers with more than 20% of their students from wealthy families. These schools lack structures for the early-detection of students at risk, and they tend to be strongly linked to nearby *lycées*. The *medium-demanded* schools present a balanced summary of their descriptive attributes and academic results. Finally, students *en retard* are over-represented in *ghetto*-schools, as well as deprived family contexts and immigrant *students*.

strategies to avoid the schools assigned by default have increased the concentration of foreigners in certain establishments by some 10% (Felouzis *et al*., 2005: 104). This has increased other types of inequality since high and middle classes have a longstanding habit of choosing schools out of their area of residence to skip unpopular institutions in favour of more prestigious ones (Ballion, 1986; Brocholichi, 1998; Coleman *et al*., 1993: 170) and are more likely to choose private schools whenever the first option was not possible (Héran, 1996).[26]

A widely held view is that school prestige is not only determined by academic excellence –for example: scores obtained in the national exams- but also by the type of student-body that attends the institution (Felouzis, 2003: 426). Hence, the number of foreigners in a particular division can be the consequence of the concentration of low socioeconomic profiles, because advantaged families –including those with more sophisticated information about school characteristics and their right to choose-, may send their children to other establishments. Less valued schools will then host more immigrant students as well as more children from those families who could not choose another school or simply did not care enough. As a result, the percentage of foreigners could be understood as a function of the average socioeconomic profile in the district.

Unfortunately, the quality of these instruments is far from the optimal level. Both instruments may imply that cov(N, ε)=0 although this is difficult to confirm. On the other hand these are not weak instruments since $\delta_1 \neq 0$.

Table 6.29 presents the results of the single equation models for mathematics and the French language, and the estimates obtained from the first structural equation, which endogenizes the contextual variables. Finally, the second table shows the estimates of the second and third structural equations, which explain the

---

[26] It is for that reason that *neighbourhood* can also be taken as a potential instrument since families from lower classes will be more likely to send their children to schools in their area of residence.

contextual variables using the school average parental education, *ZEP 1995* and *neighbourhood* as independent variables. It is worth taking a look at the results obtained using a single equation model:

Table 6.17. OLS and IVE. Grades. Contextual effects

		Maths M1	Maths M2	Maths M3	French F1	French F2	French F3
Migrant status (ref. natives)	*First immigrant*	-5.99*** (1.76)	-4.03* (1.78)	0.75 (2.34)	-7.46*** (1.72)	-5.74*** (1.73)	-2.56 (2.06)
	Mixed	-1.73 (0.92)	-1.25 (0.92)	-0.15 (1.14)	-1.59 (0.87)	-1.16 (0.87)	-0.39 (0.98)
	Second immigrant	-3.91*** (1.37)	-2.69* (1.35)	-0.20 (1.69)	-3.89** (1.32)	-2.83* (1.32)	-1.09 (1.50)
Ethnicity (ref. French)	*Algerian*	1.03 (1.18)	0.77 (1.17)	0.07 (1.38)	1.56 (1.13)	1.27 (1.15)	0.68 (1.23)
	Moroccan	-0.28 (1.35)	-0.37 (1.32)	-1.13 (1.64)	0.89 (1.28)	0.75 (1.28)	0.22 (1.45)
	Tunisian	-3.76 (2.85)	-3.50 (2.81)	-2.70 (3.09)	0.43 (1.81)	0.27 (1.80)	-0.02 (1.90)
	Portuguese	2.52 (1.47)	2.17 (1.45)	0.76 (1.83)	-1.56 (2.59)	-1.69 (2.62)	-2.23 (2.89)
	Spanish	0.22 (1.79)	0.00 (1.82)	-0.22 (2.14)	0.45 (1.57)	0.23 (1.63)	-0.05 (1.85)
	Italian	-3.13 (2.09)	-3.58 (2.07)	-4.71 (2.47)	-0.06 (1.90)	-0.45 (1.88	-1.18 (2.06)
	Turkish	1.76 (2.77)	1.65 (2.65)	1.20 (2.68)	-1.85 (2.80)	-2.02 (2.75)	-2.43 (2.74)
	African	-5.08* (2.06)	-5.60 (2.07)	-7.04** (2.40)	0.47 (1.79)	-0.01 (1.78)	-1.01 (1.88)
	Northern	3.10 (1.93)	2.52 (1.92)	0.98 (2.16)	3.71* (1.65)	3.21* (1.62)	2.21 (1.70)
	Indochinese	8.40*** (2.33)	7.89*** (2.38)	6.06* (2.70)	8.00*** (2.23)	7.47*** (2.21)	6.24** (2.40)
Sex		-0.47 (0.32)	-0.54 (0.31)	-0.78* (0.37)	5.64*** (0.30)	5.60*** (0.29)	5.50*** (0.32)
Preschool		1.04*** (0.25)	0.99*** (0.24)	0.89** (0.27)	0.72** (0.23)	0.68** (0.23)	0.63*** (0.24)
Social Class (ref. class I & II)	*Class III*	-1.16* (0.47)	-0.84 (0.48)	0.28 (0.70)	-0.78 (0.43)	-0.47 (0.44)	0.27 (0.60)
	Class IV a b	-2.07*** (0.60)	-1.66** (0.60)	-0.32 (0.86)	-2.53*** (0.55)	-2.17*** (0.56)	-1.34 (0.73)
	Class V VI	-2.97*** (0.58)	-2.30*** (0.58)	-0.23 (0.93)	-2.35*** (0.53)	-1.75*** (0.53)	-0.43 (0.80)

Table 6.17. OLS and IVE. Grades. Contextual effects (continues)

		Maths M1	Maths M2	Maths M3	French F1	French F2	French F3
	Class VII a b	-4.76***	-4.16***	-2.28*	-4.71***	-4.16***	-2.95
		(0.55)	(0.56)	(0.86)	(0.50)	(0.51)	(0.74)
	No activity	-4.60*	-3.63	0.05	-3.31*	-2.39	-0.08
		(2.11)	(2.00)	(2.66)	(1.68)	(1.61)	(2.22)
Material deprivation	Log(income)	1.46***	1.35***	0.82	1.11**	1.02**	0.73
		(0.40)	(0.40)	(0.53)	(0.37)	(0.37)	(0.44)
	Accommodation	0.89***	0.65**	0.10	0.49*	0.30	-0.02
		(0.25)	(0.25)	(0.31)	(0.24)	(0.23)	(0.26)
	Town size	-0.43***	-0.42***	-0.57**	-0.31***	-0.30***	-0.37*
		(0.06)	(0.07)	(0.18)	(0.06)	(0.06)	(0.15)
Cultural deprivation	Art activities	1.62***	1.47***	0.91*	2.60***	2.46***	2.10***
		(0.34)	(0.33)	(0.45)	(0.30)	(0.30)	(0.38)
	Parental education	2.22***	2.00***	1.27***	1.96***	1.76***	1.31***
		(0.15)	(0.15)	(0.27)	(0.14)	(0.14)	(0.23)
Educational expectation	Utility none	-6.00***	-5.32***	-2.96	-5.13***	-4.61***	-3.32*
		(1.68)	(1.61)	(1.95)	(1.32)	(1.24)	(1.44)
	Utility vocational	-9.56***	-9.08***	-7.41***	-8.57***	-8.12***	-7.06***
		(0.45)	(0.45)	(0.79)	(0.42)	(0.41)	(0.68)
	Utility BAC	-3.81***	-3.53***	-2.67***	-4.01***	-3.77***	-3.24***
		(0.53)	(0.51)	(0.65)	(0.50)	(0.49)	(0.57)
	Utility doesn't know	-3.28***	-3.14***	-2.62***	-2.92***	-2.80***	-2.50***
		(0.45)	(0.44)	(0.54)	(0.41)	(0.41)	(0.46)
Culture	Language spoken	1.44**	1.31**	0.42	0.77	0.65	0.15
		(0.45)	(0.44)	(0.74)	(0.46)	(0.46)	(0.66)
	L. spoken *Portuguese				3.24*	3.10*	2.84
					(1.29)	(1.34)	(1.45)
Child Investment	Mother works	1.99***	1.85***	1.26***	1.10**	0.96**	0.60
		(0.37)	(0.36)	(0.48)	(0.34)	(0.34)	(0.42)
	Mother works *Tunisian	7.18*	6.31*	3.92			
		(3.13)	(3.06)	(3.70)			
	Number Siblings	-0.95***	-0.89***	-0.69***	-1.03***	-0.98***	-0.85***
		(0.16)	(0.17)	(0.20)	(0.16)	(0.16)	(0.18)
Context effects	% students lagged behind		-0.61***	-2.79***		-0.54***	-1.88**
			(0.05)	(0.82)		(0.05)	(0.69)
	% foreigners		-0.18*	0.30		-0.11	0.10
			(0.09)	(0.81)		(0.08)	(0.68)
Constants		57.75***	63.60***	83.36***	60.72***	65.77***	77.65***
		(1.72)	(1.76)	(7.07)	(1.61)	(1.64)	(5.81)
N		9561	9561	9561	9588	9588	9588
F		87.21***	85.25***	56.99***	96.61***	96.59***	81.71***
R²		0.25	0.28	0.02	0.28	0.30	0.19

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.
Models M3 and F3 endogenise the contextual effects using *neighbourhood*, *priority education* and *average parental education*.

Single equations (M2 and F2) confirm the hypothesis that attending a school located in a division where the number of foreigners is higher, decreases attainment even controlling for the number of students lagging-behind in the school division.[27] Hence, there are grounds to suspect that being in contact with more foreign students is a negative influence. Yet, the effect of contacts with students lagging-behind is much more negative than with the foreigners (see the normalized beta coefficients below):

Table 6.18. Normalised β coefficients for contextual effects

	Mathematics	**French**
Number of foreign students	-0.18*	-0.11
Number of students lagged-behind	-0.61***	-0.54***

P. level * p<.05; ** p<.01; *** p<.001.

Completing the model specification with this contextual information has an appreciable effect on the immigration categories. The gap between the children of non-mixed parental couples and the children of French born families loses a complete point both in mathematics and French. As expected, the impact over the mixed category is low, as it is in general for the ethnic groups (Borjas, 1992: 144).

Part of the literature on neighbourhood effects argues that the effect of social-interactions is non-linear and negligible below given thresholds of deprivation. Qualitative studies such as Wilson's *The Truly Disadvantaged* support this argument. Crane (1991) argues that these critical points of deprivation can only appear under intense segregation. In France, Felouzis (2003: 436) has identified the threshold of 20% as the highest concentration to

---

[27] These models have also been run using multilevel regression and multilevel IVE regression (*xtivreg*) with no changes in the results.

consider that the concentration of foreigners is innocuous. I have unsuccessfully tried to confirm the nonlinear functional shape of the number of foreigners including a quadratic term in the equation specification, but it was not significant.

It is worth comparing the results obtained from the single equation model (M2 and F2) with the results of the first structural equation (M3 and F3). The first notable change is that the standard errors estimated for the contextual variables increase significantly. As a consequence, the impact of the percentage of foreigners is now insignificant. The concentration of foreigners even changes to have a positive effect over educational attainment. Thus, if we question the assumption that the distribution of foreigners across schools is random, the evidence rejects the statistical importance of negative peer-pressures from contacts with foreigners. The models also suggest that if there are peer pressures constraining school attainment, they could generally come from the concentration of students lagging-behind, irrespective of whether they are immigrants or natives. No interactions are significant between the contextual variables and the migration or ethnic dummies.[28]

To sum up, the existence of peer-pressures has only been empirically confirmed under a single equation estimation that assumes that the concentration of foreigners is a random process. If we relax this strong assumption and endogenize the concentration of foreigners, it does not seem to have a negative impact for attainment.

In order to model the existence of friendship relations with immigrant individuals, I now present a complementary analysis using the Efforts92. This survey includes information about the respondent's number of foreign friends. This allows using measures of real and direct contacts between the respondent and

---

[28] The same can be concluded if we focus on the grades obtained in the *brevet des colleges*, the years spent in lower secondary schooling and the tracking of students in upper secondary schooling (Cebolla-Boado, 2007b).

foreigners. **Foreign-friends** is a continuous variable ranging from 0 to 60 for the percentage of the respondent's friends that are foreigners. Find below the result of a t-test analyses per ethnic background:

Table 6.19. T-test. Foreign friends by national background

	Mean ethnic concentration Mean (Std error)	Ho: mean(0)-mean(1)=0 Ha: mean(0)-mean(1)<0 T value
Tunisia	4.18(2.08)	-2.617***
Morocco	1.53 (0.14)	0.260
Sub-Sah Africa	1.75(0.45)	-0.093
Indochina	1.09(0.25)	0.628
Portugal	3.53(0.17)	-3.426***
Algeria	1.21(0.24)	-1.504
Italy	1.79(0.45)	-0.113
Spain	1.69(0.08)	0.267
Europe (Western)	0.69(0.15)	2.003 (Ha: mean(0)-mean(1)>0: **)
France	1.70 (Std. Dev.3.65)	REFERENCE

Column 3 shows the t and p value for the alternative hypothesis that the ethnic group in column 1 has a higher mean than French.
P. level * p<.05; ** p<.01; *** p<.001.

Across groups, respondents report having a similar percentage of foreign friends. Tunisians are the only exception with a higher average than the rest. On the contrary, students from non-Southern European origins have fewer foreigners among their acquaintances than natives, with the only exception being the Portuguese. In contradiction to this evidence, Tribalat (1995: 129) states that Spanish, Portuguese and Algerians present a lower rate of co-ethnic socialization. A multivariate analysis using the model

specification used in the study of harassment and discrimination revealed that the number of foreign friends does not have a statistical impact on attainment and that interactions with the ethnic categories are meaningless.[29]

Summary of the results

Ethnicity does not seem to be a constraining factor of school attainment. The strict view of ethnicity as an ascriptive source of disadvantage has to be reformulated since in some cases it appears to have a positive impact on school results. Attrition has diminished the size of the ethnic sub-samples and the standard errors obtained in these models are rather large. The results of these analyses are stable if the number of ethnic groups is reduced collapsing the South Europeans and the North Africans.

The chapter has rejected the validity of cultural arguments. Even if family closeness to the Portuguese or African home-culture has a distinctive impact on school attainment, other groups whose performance has generally been explained by their cultural specificities do not. The chapter has also looked at the impact of school harassment over attainment. Yet, the quality of both the indicators of harassment and the sort of dependent variables chosen to measure performance do not permit the unambiguous conclusion that school harassment and discrimination have an impact on educational attainment. However, the analyses here

---

[29] The chronological logic of my thesis requires that the chapter closes with a reference to the ethnic differentials in the rate of school progress and the differences in upper secondary careers. The appendix replicates the models presented in those sections in chapter five completing the model specification with the ethnic categories. The analyses confirmed the lack of statistical significance of the ethnic parameters in the rate of progress –with the only exception of the Algerians (A.11)- and the tracking in upper secondary –with the only exception of the Turks (A.12).

presented suggest that students of Muslim origin are more likely to report feeling harassed by their teachers, and this could be associated with poorer school results.

The chapter has also looked at other explanations that related school results with household strategies and broader contextual factors. The existence of a trade off between the quality and the quantity of the children seems to yield an appropriate explanation as to the educational disadvantage of immigrants and ethnics but it seems to operate equally for immigrants and natives. The factors that proxy this trade off -the number of siblings and the mother's labour market involvement- help to explain ethnic residuals and the unexplained variation associated with cultural arguments.

The chapter has in general rejected the importance of explanations based on contextual factors such as those of ethnic capital, the modes of incorporation, and more generally the existence of negative peer-pressures deriving from the concentration of foreigners. References to the empirical relevance of peer pressures are a constant in the most recent theorising on ethnicity and disadvantage. Nonetheless, the confirmation of this extreme depends on the method used for the estimation. Single-equations in which the contextual information is treated as an exogenous factor, reveal a significant impact of the concentration of foreigners on attainment. If the context is explained by the processes that sort the individuals across the space, the conclusions suggest the opposite.

CHAPTER 7. THE INVOLVEMENT OF PARENTS IN THEIR CHILDREN'S EDUCATION

The previous chapters have offered a detailed description and a partial explanation of the immigrant effect in educational attainment. Chapter five has shown that a social origin approach accounts for a significant share of the unexplained variation in the school performance of immigrants in comparison to the children of French-born families. The chapter has also shown that the average school performance of immigrant and native students is able to explain the significant differentials in their rate of progress throughout lower secondary schooling and their tracking in upper secondary. Chapter six suggested that ethnicity is not a major source of educational differentiation and that if significant ethnic differentials exist, they are likely to represent an advantage for the children of certain immigrants. Yet, both chapters have been unable to fully explain the remaining immigrant effect in the grades that immigrant and native students obtained in mathematics and French at the beginning of the *collège*.

It will be remembered from chapter five that controlling for income and cultural deprivation, there are almost no differences in the school performance of the children of immigrant and native households as measured by the grades obtained in mathematics and French. However, the differentials increase and become highly significant when the model specification includes parental expectations about education. In other words, immigrant students

benefit less from their parents' ambitious expectations than the children of French-born families. As a preliminary interpretation of this finding, it was then suggested that immigrant families may be disinterested in how to motivate or channel their children towards school success, in comparison with French-born parents. This final chapter develops this idea and proves that this argument complements the social origin approach to explain the immigrant effect in grades.

The argument is strongly linked to the literature on the disputed positive impact of parental involvement in education. While for some authors, this sort of parental engagement in their children's education is very closely correlated with social class (Laureau, 1987 and 1989), others suggest that it is totally independent (Sui-Chu and Willms, 1996).[1] The chapter will first review the significant points of reference in this literature. Then, it proposes a synthetic empirical approach to this loose concept. Finally it tests its utility as a complementary explanation for the differential school performance of the children of immigrant and native families.

7.1. The importance of parental involvement in education

The sociology of education has consistently shown that class of origin has a strong impact on school outcomes and educational choices. The different explanations given to this regularity, stress the influential effect of the family context in school attainment.

---

[1] Some scholars argue that there is a strong correlation between parental involvement and social class. For Laureau (1987), parental involvement amplifies the effects of cultural capital. Upper middle class parents are better equipped than working class ones to meet the request of teachers, and thus, they are more involved (Laureau 1989: chapter 6). On the other hand, Sui-Chu and Willms (1996) find little support for the idea that low SES provides less parental involvement. This debate has strong policy implications (Hallgarten, 2000).

The extent to which parents are involved in their children's education also comes as complementary explanation. Feinstein and Symons (1999) suggest that parental interest in education explains the variation in attainment otherwise accounted for by class, expectations and family size. The empirical literature in this field has generally highlighted its positive effect on school attainment and cognitive outcomes (Feinstein and Symons, 1999; Muller and Kerbow, 1993; Astone and McLanahan, 1991; Lareau, 1987 and 1989; Muller, 1998), irrespective of whether involvement comes from the father or the mother (Bogenschneider, 1999). The positive effects of parental involvement transcend educational attainment, and have been identified as a factor in the likelihood of dropout and truancy (Ralph and McNeal, 1999). Although, some authors are sceptical about these arguments, even the sceptics recognise the beneficial effects of certain forms of parental involvement (Sui-Chu and Willms, 1996).

Even if parental involvement seems to be beneficial for above and below-average students (Laureau, 1989: chapter seven), academic-oriented students would normally benefit more from involved parents than professionally-oriented ones (Crosnoe, 2001). In any case, the literature has quasi-unanimously concluded that parental involvement has a declining importance over time given that teenagers demand more autonomy than youngsters (Muller, 1998). Accordingly, Crosnoe (2001) suggests that parents tend to be less involved as their offspring move through high school, and that this happens both for academic and non-academic oriented students. With the passing of time, the parents of successful students withdraw from their children's career more often.

The conclusions drawn from the empirical literature on parental involvement are far from conclusive. The inconsistencies could probably be due to the lack of agreement on what parental involvement really means. Muller and Kerbow (1993) talk about different forms of parental involvement: the individual and group resources that they rely on, the relationship existing between

parents and children and parental interest in education. This represents the wider understanding of parental involvement, which even includes certain forms of social capital (Ralph and McNeal, 1999). The more restrictive view only refers to time-consuming activities that monitor attainment and career management to ensure the children's school success. Among these, the literature highlights teaching, talking and reading; attending school events; supervising the completion of homework; playing, talking about school life, educational and professional opportunities, helping with homework or attending parents-teachers meetings (Muller and Kerbow, 1993; Laureau, 1989; Muller, 1998; Sui-Chu and Willms, 1996; Astone and McLanaham, 1991; Bogenschneider, 1997; Crosnoe, 2001).

Inconsistencies in the literature may also be due to the lack of data sources to conduct rigorous and systematic tests. In their review of the determinants of attainment, Havenan and Wolfe (1995: 1875) refer to the scarcity of survey studies that allow the link to be explored between school attainment and parental time spent with children, self-perceptions, self-esteem, expectations and monitoring of children, and the involvement of parents at school. The majority of the empirical studies on this topic only use two datasets: the 1958 British National Child Development Study and the US 1988 National Educational Longitudinal Study. The comparability of these studies is problematic since the NCDS only provides with information about parental involvement as assessed by teachers. On the other hand the measures in the NELS dataset contain subjective information provided by students.

If parental involvement has any importance in explaining group differentials in education, it is possible that groups with a poorer school performance are also those whose parents are less involved in their offspring's education. Immigrant families may be less involved in their children's education or if they are involved, it could be in a way which may not effectively stimulate attainment.

7.2. Redefining parental involvement in education

In order to explore the effect of parental involvement in school attainment we first need to find a systematic indicator of this fuzzy concept. To do so I shall use some sort of data-reduction method to explore if the indicators used in the literature can be reducible to a single dimension of parental involvement. The Panel-95 includes acceptable proxies to operationalize the frequent definitions of parental involvement including:

- Reasons to choose a school: the freedom of school choice is thought to echo social inequalities in education given that educated families are more likely to make an active choice than disadvantaged ones. (Coleman, 1993; Ballion, 1986; Broncholichi, 1998; Ballion and Thery; 1985; Héran, 1996). The Panel-95 includes a complete list of variables on this topic, which have been reduced to two separate indicators using a principal component analysis (see appendix A.13).
    - **Academic-reasons** is a dummy set equal to 1 if the families have chosen the school for academic reasons -because of its prestige, the range of study options offered by the institution or because of the type of public who attend the establishment[2]. *Academic-reason* values 0 if the families answered otherwise.
    - **Non-academic reasons** values 1 if the families report that the school was chosen simply because it was closer to their house or because it was indicated by the former educational institution attended by the student. It values 0 in the rest of the cases.
    - **Conversations about education**:

---

[2] The question asks if "*l'école est bien fréquenté*" (the people in the school are well-off).

- **Life-in-class** summarizes the frequency of talks about the student's life in class - his teachers, what s/he learns and his or her general well being in class. It values 1 if the family *never* talks about these issues, 2 if they do *sometimes* and 3 if they do it *frequently*.
- **Future:** conversations about the student's school career and professional future.

The construction of these two variables was again suggested by a principal component analysis (see appendix A.14).

o **Parental attendance in meetings with the teachers**: met-teacher values 1 if the family had at least one meeting with the child's teachers in 1998 and 0 otherwise.

o **Participation in a parents' association**: 1 means that the student's parents belonged to an association in 1998 and 0 otherwise.

o The same if **parents were members of the class council in 1998**.

The literature assumes that these indicators –the reasons to select schools, the existence of family conversations about education, the existence of parents-teachers meetings, and the participation of parents in associations or class councils- belong to a single dimension broadly labelled as parental involvement in education. However, the lack of agreement in the literature on the empirical effect of the most frequent indicators of parental involvement could be due to the little analytical sense of grouping them together in a single dimension. In order to preserve simplicity, a principal component analysis (PCA) explores whether these variables are reducible to a single indicator of parental involvement in education. The correlation matrix reveals that our indicators are not very strongly associated, with the single

exception of the frequency of conversations, and the participation in the class council and the parental association.

Table 7.1. Correlation matrix for proxies of parental involvement in education

	Met teacher	Academic reasons	Life class	Future	Assoc	Class council
Met teacher	1.00					
Academic reasons	0.07	1.00				
Life in class	0.12	0.06	1.00			
Future	0.01	0.01	0.30	1.00		
Association parents	0.12	0.03	0.06	0.04	1.00	
Class council	0.11	0.01	0.06	0.00	0.61	1.00

The PCA is based on the assumption a given group of variables is reducible to a smaller number of underlying factors responsible for the covariance among them. Of course, covariance does not necessarily mean causality. Two variables can co-vary either because they are linked by causality or because they share a common cause. In this case, I will assume that the proxies of parental involvement are a linear combination of a number of underlying factors. The PCA offers a clear-cut criterion for the definition of the number of acceptable factors. This is the statistic *eigen*-value -whose threshold is consensually established in 1 (Kim and Mueller, 1978b: 14-21)-, although it is more based on heuristic and practical grounds than on scientific ones.[3]

---

[3] For more about the other methods such as maximum likelihood, ordinary least squares, alpha factoring and image factoring see Kim and Mueller (1978a and 1978b).

Table 7.2. Parental involvement. Rotated factor loadings (Varimax)

	1	*2*	*3*
Met teacher	0.21	0.15	**0.58**
Academic reasons	-0.06	-0.04	**0.83**
Life in class	0.07	**0.78**	0.16
Future	-0.06	**0.82**	-0.13
Association	**0.89**	-0.01	0.04
Class council	**0.89**	0.02	-0.02

Table 7.3. Share of explained variance, KMO and Bartlett test

Components	*Eigen value*	*% var.*	*Cum. %*
1	1.68	27.99	27.99
2	1.32	21.94	49.93
3	1.04	17.34	67.27
KMO	0.526		
Bartlett Chi^2	1775.59***		

Note: Dimensions accepted if eigen ≥1.

The first conclusion from the PCA is that the list of variables that are commonly taken as proxies of parental involvement in education is not reducible to a single dimension. The concept of parental involvement in education captures several different aspects of how parents are involved in their children's education. Note that the three dimensions present an *eigen*-value bigger than one. This is the proposed interpretation of the underlying factors:

$F_1 \rightarrow$ **Institutional parental involvement**:
(*participation in the parents' association* and *the class council*).

$F_2 \rightarrow$ **Parental information about the school system**: wider relationship existing between the family and the educational system (*met-teacher* and *academic-reasons*).

$F_3 \rightarrow$ **Direct monitoring of progress and plans**: direct contact between parents and children (*life-in-class* and *future*).

Note that the high value of the Bartlett statistic in the PCA suggests that the results are reliable, and the distribution of the loads across these variables clearly separates them by components.

The first factor summarizes the direct participation of parents in the school institutions that are open to them: the associations of students' parents and the class council. The second factor refers to the information that less participative families have about the functioning of the school system. As has been argued in chapter six, French parents differ in the strategies adopted to avoid the consequences of the school *sectorization*. This is very much dependent on the information they have available regarding the quality of schools or their prestige. The meetings between parents and teachers may also increase the level of parental information about the school system as a whole and the specific needs of their children.

My argument is that these two dimensions of involvement proxy the level of parental information about different aspects of the school system. In France, the freedom of school choice has resulted in the existence of an index of school desirability that is a function of several aspects including the range of study options, the number of students at risk, the average orientation in upper secondary education (Ballion, 1996) and the type of public that attends the school (Felouzis, 2003; Felouzis *et al.*, 2002). Hence, the families that choose establishments according to these indexes are likely to have rather sophisticated levels of information about the functioning of the school system. It could be argued that this logic is spurious since having chosen an establishment because of

its reputation or the quality of its student-body could hide (positive) school or contextual effects rather than parental information. However, for Ballion (1986: 733), the good or bad reputations of certain schools are arbitrary representations based on prejudices and random ideas. This author argues that families are very rarely able to produce objective ideas about the schools quality as the results of a rigorous comparison among schools. Thus, if the selection of schools for academic reasons has a positive impact on attainment, it is likely to be because the family tries to choose after compiling more information, and not because the indexes of school desirability correlate with school quality.

The link between the frequency of parents-teachers meetings and the level of information is far more evident. If parents and teachers held frequent meetings, the families are more likely to be well informed about the student's prospects and evolution and the options given by the whole system. In the specific case of the French secondary school, regular meetings between parents and teachers are far more important because of the important role that families have in the selective process that tracks students in upper secondary education. Indeed, experts on this process have detected significant misunderstandings and lack of co-ordination between the main implicated agents. In general families continue to perceive it as a complex and obscure procedure even though the French administration has regularity tried to simplify its rules (Masson, 1997).

To sum up, parental involvement in education appears to be a less homogeneous concept than is normally believed. It is therefore seen as recommendable to check the impact of each dimension on educational attainment. To do so, we shall regress the grades obtained by the students in the 1995 evaluation exams in mathematics and French on each factor obtained from the PCA. *Is the impact of parental involvement on attainment positive across dimensions*? The estimates obtained from the regression analyses can clarify this point.

Table 7.4. OLS. Grades. Dimensions of parental involvement

		Maths	French
Parental involvement	*Intimate PI*	-0.45** (0.16)	-0.14 (0.16)
	Information	3.39*** (0.17)	2.85*** (0.16)
	Institutional PI	3.10*** (0.15)	2.69*** (0.14)
Constant		66.03*** (0.16)	68.63*** (0.15)
N		11559	11590
F		283.70***	226.29***
R^2		0.07	0.06

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

Two forms of involvement seem to benefit attainment: the level of information and the direct institutional participation of parents in the school system. On the other hand, an intimate level of parental involvement is associated with worse marks in mathematics and French (note that this effect is only statistically significant in the case of mathematics). My suspicion is that this is not a causal relation but rather a spurious effect. Parents are more likely to be intimately involved in their children's education when they fail. In other words, parents tend to speak to their children about their school experiences when they are not successful.

Once the conceptual meaning and the empirical impact of parental involvement in education has been systematized, the following section measures the contribution of the positive types of parental involvement in the explanation of the remaining immigrant effect on grades.

7.3. The unequal involvement of immigrant and native parents

It is known that immigrant families and immigrant students have more ambitious expectations than the native-born from the same social origin (Kao and Tienda, 1995; Kao and Thompson, 2003: 422-3; also confirmed for the case of France in Brimbaum and Kieffer, 2005; Caille, 2005a and 2005b). Nonetheless, immigrant families could lack the specific sort of parental involvement that helps their children to succeed. Even if the level of parental involvement is equal between immigrant and native families, immigrant parents could fail to translate their educational aspirations into achievement and attainment (Kao and Thompson, 2003: 436) because of their lack of familiarity with the functioning of the host educational system. In France, Caille and O'Prey (2002) have said that due to the weak parental education of immigrants, parents are less able to help their children with their homework and do not maintain frequent contact with teachers. According to these authors, this represents a disadvantage in comparison to the way native families behave which does not fully disappear controlling for social origin.[4] My hypothesis is that those indicators of parental involvement that proxy information benefit attainment, and are a good complement to the standard social origin approach tested in chapter five regarding the explanation of the immigrant effect on attainment.

This information hypothesis will be tested on a simple baseline model that contains the immigration categories as well as the controls and independent variables introduced in the fifth chapter as mediating factors of the social origin explanation for the immigrant effect: the cultural and material deprivation factors and

---

[4] This contradicts the 'family mobilization thesis' proposed by Van Zanten (1997) and supported by Vallet (2005) according to which the practises of immigrant parents in relation to the schooling play a central role in their children's success.

the parental expectations.[5] The specification also includes controls for the mechanisms that have been used to model the trade off between the quantity and the quality of the children. The specifications will only include those dimensions of parental involvement that have been revealed to have had a positive impact on attainment according to the results obtained in the previous models.

The following table presents the results of the stepwise regression analyses. The first models (M1 and F1) only introduce the immigration categories. The second models (M2 and F2) measure the net immigrant effect controlling for the family's social origin. Finally, the third models (M3 and F3) add the parental involvement dimensions.

Note that the inclusion of these two dimensions of parental involvement maintain a positive effect on school attainment controlling for the whole list of social origin controls and independent variables used in the previous chapters. Furthermore, once these variables are included in the regression models, the differential performance of the children of immigrant and native households appear to be non-significant, with only the exception of the first-immigrant group in the model estimated for the scores in French language. This is not an unexpected result given that the foreign-born children of two immigrants are the most unlikely group to become proficient French-speakers in a short period of time.

---

[5] So as to preserve parsimony in this last explanation, class is not included in the models. Instead the several blocks of mechanisms proved in chapter five are used to model social background.

Table 7.5. OLS. Grades. Parental information (1st part: mathematics)

		Maths M1	Maths M2	Maths M3
Migrant status (ref. natives)	*1st imm.*	-7.56*** (1.66)	-3.36* (1.47)	-2.67 (1.54)
	Mixed	-0.24 (0.64)	-1.07 (0.55)	-0.71 (0.56)
	2nd imm.	-9.60*** (0.75)	-1.67* (0.76)	-1.24 (0.79)
Cultural capital	*P. education*		2.78*** (0.13)	2.43*** (0.14)
	Art activities		1.69*** (0.33)	1.23*** (0.33)
Material deprivation	*Income*		1.03*** (0.17)	0.89*** (0.18)
	Accommodation		1.05*** (0.25)	0.85*** (0.25)
	Town size		-0.33*** (0.06)	-0.31*** (0.06)
Sex			-0.52 (0.31)	-0.69* (0.31)
Preschool			0.94*** (0.23)	0.92*** (0.24)
Educational expectations	*Ut. none*		-6.95*** (1.62)	-5.93*** (1.66)
	Ut. BAC		-4.38*** (0.52)	-4.36*** (0.53)
	Ut vocational		-10.38*** (0.43)	-10.06*** (0.44)
	Ut doesn't know		-3.60*** (0.43)	-3.50*** (0.44)
Child investment	*N siblings*		-0.91*** (0.15)	-0.80*** (0.15)
	Mother works		2.00*** (0.35)	1.95*** (0.35)
Parental involvement	*Information*			1.50*** (0.17)
	Institutional PI			0.95*** (0.15)
Date of arrival	*Student arrival*			
	*1st imm.*s.arrival*			
Constant		67.74*** (0.19)	52.14*** (1.44)	54.82*** (1.45)
N		9713	9713	9713
F		61.01***	185.06***	156.17***
R²		0.03	0.25	0.25

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

Table 7.5. OLS. Grades. Parental information (2nd part: French)

		French F1	French F2	French F3	French F4
Migrant status (ref. natives)	*1st imm.*	-8.97*** (1.42)	-3.81* (1.55)	-3.66* (1.55)	3.17 (5.02)
	Mixed	0.18 (0.55)	-0.33 (0.50)	-0.19 (0.50)	-0.21 (0.50)
	2nd imm.	-9.15*** (0.60)	-1.51* (0.73)	-1.20 (0.73)	-1.14 (0.73)
Cultural capital	*P. education*		2.34*** (0.139	2.18*** (0.13)	2.20*** (0.13)
	Art activities		2.39*** (0.31)	2.22*** (0.31)	2.22*** (0.31)
Material deprivation	*Income*		0.78*** (0.17)	0.68*** (0.17)	0.67*** (0.17)
	Accommodation		0.46* (0.24)	0.36 (0.23)	0.38 (0.23)
	Town size		-0.19*** (0.06)	-0.19*** (0.05)	-0.19*** (0.05)
Sex			5.50*** (0.29)	5.45*** (0.29)	5.45*** (0.29)
Preschool			0.48* (0.22)	0.44* (0.22)	0.39 (0.22)
Educational expectations	*Ut. none*		-5.84*** (1.32)	-5.36*** (1.32)	-5.34*** (1.32)
	Ut. BAC		-4.40*** (0.49)	-4.30*** (0.49)	-4.30*** (0.48)
	Ut vocational		-9.52*** (0.41)	-9.20*** (0.41)	-9.21*** (0.41)
	Ut doesn't know		-3.30*** (0.41)	-3.17*** (0.41)	-3.16*** (0.41)
Child investment	*N siblings*		-0.93*** (0.16)	-0.92*** (0.16)	-0.93*** (0.16)
	Mother works		1.20*** (0.33)	1.17*** (0.33)	1.19*** (0.33)
Parental involvement	*Information*			1.00*** (0.15)	1.01*** (0.16)
	Institutional PI			0.73*** (0.14)	0.73*** (0.14)
Date of arrival	*Student arrival*				0.16 (0.53)
	*1st imm.*s.arrival*				-2.28 (1.54)
Constant			69.14*** (0.17)	57.01*** (1.36)	58.36*** (1.37)	58.43*** (1.38)
	N		9725	9725	9725	9725
	F		88.88***	182.73***	167.06***	150.73***
	R²		0.03	0.26	0.26	0.26

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

I have tried to explain this remaining significant unexplained variation using the students' date of arrival in France (F4). The 'cultural discontinuity theories' explain the immigrants' disadvantage through attachment to the cultural distance between the emitting and the host countries, and especially to the impact of having a different mother-tongue (Chiswick and DebBurman, 2004).[6] In principle, these constraints have a decreasing importance over time and will disappear when the immigrants overcome the loss of country specific human capital (Friedberg, 2000).

The estimate obtained in the fourth model, does not fully confirm the time of residence hypothesis since it is not statistically significant. This could be due to the ethnic heterogeneity of the immigration inflows that reach France with respect to their relative familiarity with the language. French is still a co-official language in many former French colonies, which continue to have significant migration inflows to France.[7] At this time other Arab immigrants in France do not even speak fluent Arabic or Berber but they are native French speakers since the use of French versus other national languages also replicates the rural/urban cleavage (Jelen, 1993: 113-42).

Even if this effect is not statistically significant, it is important to note the impact that the introduction of this variable has on the *first-immigrant* estimator. I have tried to find a significant interaction between the time of residence arrival and this category of immigrant students -remembering that the mixed category also includes some foreign-born students.

To sum up, the results of this short chapter appear to suggest that immigrant families could lack a sophisticated knowledge of

---

[6] These are opposed to the cultural ecological theories that focus on situational factors and discrimination.

[7] Note that in many North and Black African countries French is a co-official language. 74% Black Africans, 61% of Algerians, 53%of Moroccans and 50% of Vietnamese, Laotians and Cambodians spoke French before migrating (Tribalat *et al*., 1996: 193).

the functioning of the French school system, and that this is certainly constraining their children's level of school attainment. This plus the sort of disadvantageous factors associated with social origin, appear to be a good explanation for the only remaining immigrant effect in education.

CHAPTER 8. CONCLUSIONS

This thesis has sought to explain the significant differences in the educational attainment of the children of immigrant and native families, which it defined as immigrant effects in educational attainment. Significant differentials in the school performance of the children of immigrant and native households were identified in several indicators of attainment, including school performance (grades in mathematics and French language) and careers in upper secondary schooling.

The thesis has applied a twofold research strategy to explain the unequal school performance. The *social origin approach* assumed that immigrant and natives are educationally stratified according to identical mechanisms related to their socioeconomic family background. As a consequence, the immigrant-native differential in attainment results from the unequal stratification of these two populations across social classes. On the other hand, the *ethnic strategy* suggested that ethnicity and ethnic related processes were relevant mediating factors to provide a complete explanation of the unequal educational stratification of immigrants and natives. Accordingly, the thesis has tried to disentangle the effect of social origin and ethnicity as causes of the unequal educational attainment of immigrants and natives.

This final chapter summarizes the main conclusions drawn from the empirical analyses, highlights its theoretical implications and recalls the most important limitations. The thesis has been able to confirm many of the conclusions arrived at in the significant previous international (Kao and Thompson, 2003,

Heath and Brinbaum, 2007) and French literature (Vallet and Caille, 1996) in the field of immigration and educational attainment. The children of immigrant families are systematically less successful than those coming from native born families both in elementary and lower secondary schooling. Importantly, most of this immigrant disadvantage disappears controlling for social origin.

The empirical part of the thesis has been chronologically organised, following a cohort of students from preschool to their tracking in upper secondary. Even if the main focus of this research was secondary schooling, it has explored some retrospective information on prior schooling. This has allowed me to show that immigrant and native families have equal access to preschool education, but that the children of non-mixed immigrant households already appear to be lagging-behind when they finish elementary school since they are significantly more likely than the children of native households to repeat at least a year in elementary. This is partially explained by their worse school performance and their social background. The fifth chapter has also shown that immigrant origin-students are more likely to be tracked to the special education sections that group students who are at risk of failing at the beginning of lower secondary school. In any case, this is completely explained by the immigrant origin students' worse school performance. Unfortunately, the Panel lacks accurate measures of grades before 1995, so this conclusion has to be cautiously interpreted. Therefore there are no grounds to suspect that immigrant children are unfairly treated when it comes to regrouping the worse students within schools.

The thesis has consistently shown that migrant status is indeed associated with poorer attainment at the entrance of the 1995 cohort of students surveyed by the Panel in the *collège* (lower secondary) as measured by their grades in mathematics and French in 6th year (evaluation exams). Surprisingly, the analyses have revealed that the largest disadvantage is associated with the type of parental couple rather than the students' country of birth. Quite

unexpectedly, the children of two immigrants are almost equally disadvantaged irrespectively of whether they were born in France or elsewhere as compared to the children of two French-born parents or a mixed couple (immigrant+French-born). In the pooled regression models, the gap between the children of mixed/French born couples and the students from non-mixed parental couples was around 10% in the grades obtained in mathematics and French. However, this does not mean that the generation effect is irrelevant for the study of the status attainment of the immigrant population, since the specific mechanisms that disadvantage the French-born and the foreign-born children of two immigrants are different. The majority of the foreign-born students surveyed in the Panel, could be classified as the *1.5 generation* rather than as firstmovers, who reached France when they were very young, and thus were almost completely socialized in the host country. What the thesis has been able to confirm is that the difference between the 1.5 and the 2nd generation is smaller than expected.

Even if the significant literature had already documented the worse school performance of the children of immigrant and native households, some authors have played down the relevance of this gap, because it is believed to decrease over time. For some scholars, the children of immigrant households represent a particularly motivated population, or more generally, a positive self-selected group, more able and skilled than the average, given their social background. As a consequence, students of immigrant origin are thought to progress faster than the children of non-immigrant households. This widely-accepted argument has only found partial confirmation in the thesis. Even if the empirical analyses have verified the existence of a faster rhythm of school progress among immigrant-origin students in the period 1995-1998, the thesis has rejected an explanation based on their positive self selection. The improvement of the children of immigrant households over time should not be compared to the average native, but to the avarage student with a similar initial grade in 1995. There is a floor level effect which makes it easier to improve departing from a lower than from a higher grade. Given

that immigrant students tend to depart from lower grades in the evaluation exams conducted in mathematics and French in 1995, they are more likely to improve their initial score over time, just as the children of French-born parents with a similar school performance in t_0.

The impact of this relative disadvantage of the children of non-mixed immigrant households in grades is determinant in explaining their long-term school careers throughout lower secondary schooling. The French school system tracks students in upper secondary in two principal branches: the academic (*lycée général et technologique*) and the vocational (*lycée professionel* and the *certificat d'aptitud professionel*). The selection of students for these tracks is decided by a class council who considers the students' prior school performance (most noticeably the *brevet des collèges*) and the family's explicit preferences. The fifth chapter has looked at both the family's preferences and the class council's final decision. This has revealed that immigrant students are *ex ante* more likely to be guided towards less prestigious tracks (the vocational options). But the picture is completely reversed when we consider their school results (the average grade obtained in the *brevet* and the number of years that they have repeated in *collège*). Furthermore, once we control for their prior school performance, we can clearly see that immigrant families are more likely to expect their children to proceed towards the *lycée général et technique*. This family preference for the academic track controlling for the school results explains the higher likelihood of the children of immigrants to be invited to proceed towards the general and the technological *lycée* as seen in the analysis of the *orientation*. Thus, if we look at the tracking of students, conditional on prior performance, we cannot conclude that the children of immigrant families are disadvantaged. For immigrant-origin students, as for the rest, better grades will clear the way to university. In conclusion, this analysis of *orientation* suggests that the immigrant effect in education is produced by primary rather than secondary effects.

Thus, knowing what causes the grade differentials is essential to understand the differences in the educational stratification of immigrants and natives. Given this central role of grades, the thesis has made an effort to find an accurate explanation of the worse school performance of immigrant and native children both in mathematics and French in 1995. Most of the differential in grades between the children of immigrants and natives is explained by social origin related factors. Indeed, the fact that the immigrant and the native population are unevenly stratified across the class scheme and possess different economic and cultural assets, explains most of the initial immigrant effect in attainment using any of the indicators covered. It is important to note that immigrants are not more reticent to invest economic resources in their offspring than natives. Money does not appear to be the problem, or at least no more than for similarly affluent native families. On the other hand, cultural capital has been revealed to be a strong mediator of the immigrant effect in educational attainment. Immigrant households own less cultural capital and fewer educative resources than native ones. The analyses suggest that the conventional application of the cultural capital theory is a powerful tool for the explanation of the immigrant effect in school attainment.

A striking conclusion from the study of the social origin factors presented in chapter five is that the children of immigrant families have worse school results than the children of natives, if the educational expectations of the families are equal. The thesis has sought to provide an explanation of this surprising regularity. Immigrant parents lack the appropriate information about the functioning of the French school system that could allow them to motivate their children according to their potential school success. This could also happen if immigrants ignore how to advise their children successfully as certain French scholars have suggested (Caille and O'Prey, 2002). Along this same line of reasoning, the seventh chapter has studied the impact of a number of indicators of parental involvement on their children's education. This has proved that if we consider that the participation of immigrant

families in the school institutions that are open to parents (associations and class councils) is rare, and their lack of sophisticated information about the functioning of the school system, the gap in grades between the children of immigrant and native households becomes statistically insignificant. The evidence suggests that the differences in the involvement of immigrant and native parents represent a fine complement to a social origin explanation of grade differentials between immigrant and native families.

The following graph summarizes the evolution of the immigrant effect (regression estimates associated with migration status) considering the explanations proposed in the empirical chapters (where the children of French-born families the reference category).

One of the most relevant findings of this thesis is that ethnicity only plays a minor role in the explanation of the immigrant effect in educational attainment. The analyses presented in the sixth chapter have included a wide range of ethnic backgrounds to confirm that most of the ethnic residuals in multivariate analysis are absorbed by the migration status and the family's social background. Furthermore, controlling for these two factors, certain ethnic ascriptions appear to be a source of advantage (immigrants from Northwest Europe and from the former French Indochina), and very few others keep negative signs, which is mostly due to class-related factors.

School harassment also appears to have a negative impact on educational attainment. Despite serious data constraints, the thesis suggests that harassment from teachers seems significantly associated with poorer school performance. This is especially the case of students coming from Muslim-majority national origins. Regrettably, the shortage of suitable indicators of attainment in the auxiliary dataset, and the lack of precise indicators to operationalize discrimination prevented us from providing a detailed exploration of the intensity and the impact of school harassment.

Graph 8.1. The immigrant effect in grades (regression estimates)
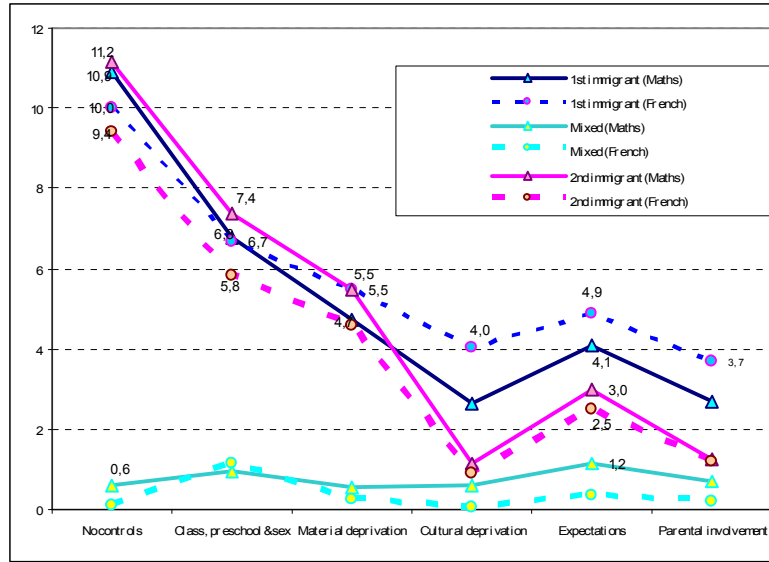
Legend: The statistically significant effects are labelled with the value of the estimate.

The thesis has been unable to confirm the predictions of recent theorising on immigration and ethnicity, especially the arguments that relate the immigrant effects in education to the impact of peer-pressures that reproduce ethnic differentials. Mostly, these theories highlight the influence of the wider social context and make constant reference to the immigrants' social capital and to social interactions. Neither the quality of the ethnic capital nor the modes of incorporation seem to be associated with the differential educational performance of immigrant and native students.

Beyond these two specific arguments, the thesis has sought to confirm the existence of social interactions associated with the concentration of foreigners in French schools –used as a proxy of ethnic and co-ethnic concentration. The empirical evidence recommends caution in the study of peer-pressures resulting from

the concentration of foreigners in schools. The conclusions are diametrically different depending on the estimation method and at its time, and this depends on explicit assumptions about the nature of the contextual information. Single-equation estimators of the concentration effect confirm a negative correlation between this contextual variable and several proxies of educational success. But these models impose the assumption that the concentration of foreigners is an exogenous and random process, and therefore, that there is no need to model how the population is distributed across schools. However, there are grounds to suspect that the concentration of foreigners follows a non-random pattern and that results from prior sorting mechanisms that distribute the public across school divisions. It is likely that the family socio-economic background determines the choice of social spaces -such as the area of residence or schools attended- and thus, that the assumption behind single-equation estimators, namely that the concentration of foreigners is an exogenous variable, results aggressive. Our results appear to indicate that attending schools where there are more foreigners is not the real problem. The low level of attainment in these contexts is the result of the homogeneous socioeconomic background of the student-body. The sorting of individuals across social spaces is not a random process, and immigrants are not an exception.[1] The concentration of foreigners and ethnic minorities can be a significant factor in the development of specific identities and to explain certain types

---

[1] This conclusion does not deny the existence of peer-group pressures in other fields, but only that the concentration of foreigners is not a particularly rich ground for them to appear in comparison to contexts where disadvantage is also concentrated. The concentration of foreigners in schools is the result of the concentration of disadvantage, and when we take this into account, it does not matter whether we interact with foreigners or natives. We must bear in mind that interactions can have great importance in the study of other social phenomena such as criminality or patters of sexual behaviour.

of behaviour, but it does not seem to be a trap constraining educational attainment.

Finally, I would like to highlight some of the limitations of this thesis. Even if the thesis has used the best-quality datasets available in France for the study of the educational attainment of the immigrant population, the questionable quality of some of indicators used to model certain mediating factors and independent variables, warns against over generalizations and enthusiastic interpretations. The Panel-95 only allows to proxy modestly some specific concepts such as cultural capital and educational expectations. It also omits details about school discrimination and the views that the children might have about the labour market, something that could help better test the impact of discrimination and labour market expectations on educational attainment. The auxiliary dataset used for certain analyses has softened some of these limitations, even though it does not allow us to study the impact on the precise indicators of attainment offered by the Panel-95. In any case, the French Panel of Students is, to the best of my knowledge, one of the most powerful tools for the study of immigration and disadvantage in Europe. Its added-value is the multidimensional approach to educational attainment that it allows and a large sample size that permits us to conduct inter-group comparisons. Yet, attrition is an important obstacle for the production of reliable estimations, and some of the ethnic coefficients are associated with high standard errors. However, the results have also been confirmed using only the largest ethnic categories and also by collapsing the immigrants from the South of Europe and those from the North of Africa.

Another limitation of this thesis is that it only focuses on the lower secondary school experience. Yet, the literature has shown that even if the children of immigrants and natives do not behave very differently at this stage, the opposite occurs when it comes to looking at non-compulsory education (Vallet and Caille, 1999; Brinbaum and Cebolla-Boado, 2007). According to the data provided by the *Génération 98* survey (CEREQ), -which sampled school leavers in 1998-, the immigrants' handicap is far more

evident. The following table shows the percentage of the French and immigrant-ancestry individuals who stayed in the educational system two years after the baccalaureate or even longer.

Table 8.1. Percentages of school leavers after the BAC

	French	North African	Portugal	Europ (EU)	Turkish	Southeast Asians	Sub-Sah African
BAC plus 2	17.7	6.7	16.8	16.3	1.4	16.3	9.2
>BAC + 2	17.6	6.3	5.7	16.5	3.6	14.3	7.7

Source: Silberman *et al*. (2007: 10).

The thesis suggests that the theoretical production on the educational attainment of the immigrant populations in advanced economies should remain simple. The current theorising is promoting complexity and sophistication over the scientific preference for parsimonious explanations. In the case of the research on immigration and educational attainment the mechanisms that educationally stratify immigrants and natives are related to the families' social-origin. Furthermore, the impact of these mediating factors is similar for the two groups, so no interactive terms are required in multivariate analyses. Of course immigration imposes an extra limitation, but this could mostly be due to the lack of a sophisticated understanding of the functioning of the school system and country specific human capital. This could neglect the relevance of ethnicity and the broader group contextual factors. This does not only seem to be the case in France. Parents' socioeconomic position is able to explain differences in the attainment of immigrants and natives in the majority of the European countries in contrast with what happens in the United States (Heath and Bribaum, 2007).

To conclude, the measures that will most help immigrant students at school are the same as those that will generally raise

the standards of secondary education. What this suggests is that any policy seeking to equalize the educational stratification of immigrant and native origin students must focus on short term school success (grades). Improving the immigrant students' and the children of immigrant families' grades in lower secondary education is a priority. Their families' higher expectations will do the rest.

APPENDIX

A.1. Dictionary of variables

A.1.1. The panel of students in secondary education

Table A.1. Dictionary of variables: Panel-95

	Obs	Variable description	Mean	Std. Dev.	Min Max
Academic-reasons	12,763	The school was selected for academic reasons	0.56	0.50	0/1
Accommodation	12,660	Are you satisfied with your residence?	3.56	0.73	1/4
Adaptation	16,582	The student attends adaptation groups in elementary school	0.016	0.12	0/1
African	17,770	Father or mother were born in Black Africa	0.015	0.12	0/1
Algerian	17,793	Father or mother were born in Algeria	0.051	0.22	0/1
Art-activities	13,457	The student attends a number of highbrow cultural activities	0.60	0.49	0/1
Average parental education	17,519	Average level of parental education at school	4.07	1.11	1/6
Brevet-French	13,451	Grades obtained in French in the Brevet exam	54.99	12.99	5/100
Brevet-math	13,449	Grades obtained in maths in the Brevet exam	54.51	17.30	0/100
Class III	17,830	Head of the household belongs to class…	0.17	0.38	0/1
Class I-II	17,830	"	0.15	0.35	0/1
Class IV a b	17,830	"	0.09	0.29	0/1
Class VII a b	17,830	"	0.18	0.38	0/1
Class V-VI	17,830	"	0.38	0.48	0/1
Parental-education	14,906	Highest diploma reached by the father or the mother	4.08	1.60	1/6

Ethnic-capital	17,830	Average level of education in the parents generation	4.06	0.52	1.3/5.2
Evol. French	12,941	Rate of progress in French from 6th to 3rd grade	-15.13	12.29	-66.8/55.9
Evol. Math	12,911	Rate of progress in maths from 6th to 3rd grade	-13.01	14.88	-66.2/64.5
Family-choice	14,210	Most preferred option for the student in upper secondary school	0.66	0.4728	0/1
Final-choice	13,954	Option decided by the class council for upper secondary school	0.63	0.48	0/1
First-immigrant	16,208	First gen. Immigrant student from immigrant couple	0.03	0.16	0/1
First-mixed	16,208	First generation immigrant student from mixed parental couple	0.01	0.07	0/1
French	16,208	Children of French-born father and mother	0.78	0.41	0/1
French-1995	17,011	Grade obtained in the French evaluation exam in 1995	67.25	16.64	0/100
Future	14,924	Frequency of talks about academic and professional future	0.61	0.49	0/1
Help	16,376	The student attends help groups in elementary school	0.04	0.20	0/1
Income	14,652	Do you think that your income allows your child to study for as long as he wants to?	2.49	1.00	1/4
Indochinese	17,770	Father or mother were born in Laos, Vietnam or Cambodia	0.01	0.08	0/1
Italian	17,579	Father or mother were born in Italy	0.01	0.09	0/1
Langue-spoken	15,027	Language spoken with children	1.21	0.58	1/4
Level	17,812	Mean level in French and maths brought to secondary school (teacher's estimation in 1995)	6.27	1.90	0/10
Level-family-estimation	15,092	Estimated level of school success by the family	2.78	0.83	1/4
Life in class	14,965	Frequency of talks about life in class	0.76	0.43	0/1
Log(income)	14,652	Logarithm of income	0.81	0.48	0/1.4
Math-1995	16,972	Grade obtained in the math evaluation exam in 1995	64.54	17.69	0/100
Mean-brevet	13,447	Mean score obtained in the Brevet exam	10.95	2.77	0.75/19.5

Met-teacher	15,187	The family has met at least once the teacher in 1998	0.82	0.38	0/1
Mixed	16,208	Immigrant student from mixed parental couple	0.09	0.28	0/1
Moroccan	17,793	Father or mother were born in Morocco	0.037	0.19	0/1
Mother-works	17,691	The student's mother works	0.60	0.49	0/1
Neighbourhood N of foreigners	17,830	Number of foreigners in the school area	1.51	2.47	0/29
No activity	17,831	The head of the household is inactive	0.03	0.17	0/1
Northern	17,770	Father or mother were born in Northern Europe	0.01	0.08	0/1
N-students lagged-behind	17,830	Number of students at risk in the school area	7.15	4.34	0/37
Period 1939-1960	16,516	Family came to France between 1939-1960	0.01	0.12	0/1
Period 1960-1974	16,516	Family came to France between 1960-19674	0.07	0.26	0/1
Period 1974-1995	16,516	Family came to France between 1974-1995	0.04	0.20	0/1
Portuguese	17,793	Father or mother were born in Portugal	0.02	0.15	0/1
Preschool	14,933	Number of years in preschool education	3.06	0.73	0/4
Public-school	17,028	The student attends a public school?	0.17	0.37	0/1
Repeats-collège	16,051	Number of times that the student has repeated lower secondary school	0.87	1.42	0/5
Repeats-element	12,868	The student has repeated elementary school?	0.18	0.38	0/1
Second-immigrant	16,208	Second gen immigrant student from immigrant parental couple	0.10	0.31	0/1
Second-mixed	16,208	Second gen immigrant student from mixed parental couple	0.08	0.28	0/1
SES	17,830	The student begins secondary school in a group of special education	0.03	0.16	0/1
Sex	17,830	Student's sex	0.48	0.50	0/1
Siblings	17,825	Number of siblings	2.75	1.39	0/20
Spanish	17,579	Father or mother were born in Spain	0.01	0.10	0/1
Student-arrival	17,812	Student's year of arrival in France	0.07	0.49	0/5
Town-size	17,830	Number of inhabitants in the town of residence	4.57	2.71	0/8
Tunisian	17,793	Father or mother were born in Tunisia	0.01	0.12	0/1
Turkish	17,793	Father or mother were born in Turkey	0.01	0.09	0/1
TV	14,713	Do you control the student's consumption of TV?	0.69	0.46	0/1

Ut. BAC	14,964	The resp finds BAC more useful to find a job.	0.13	0.34	0/1
Ut. Does not know	14,964	The resp does not know which educational track is more useful to find a job	0.23	0.42	0/1
Ut. None	14,964	The respondent finds no utility in education to find a job	0.02	0.13	0/1
Ut. university	14,964	The resp thinks that University is more useful to find a job	0.35	0.48	0/1
Ut. vocational	14,964	The respondents finds vocational education more useful to find a job	0.27	0.45	0/1
Zep 1995	17,830	The student attends a priority education area in 1995	1.893	0.32	1/2

A.1.2. The effort of families

Table A.2. Dictionary of variables: Efforts92

	N	Variable description	Mean	Std. Dev.	Min/max
African	1934	Father or mother born in Africa	.01	0.11	0/1
Algerian	1934	Father or mother born in Algeria	.05	0.23	0/1
Class III	1,935	Head of the household belongs to class…	0.3	0.43	0/1
Class I-II	1,935	"	0.17	0.38	0/1
Class V a b	1,935	"	0.13	0.33	0/1
Class VII a b	1,935	"	0.16	0.31	0/1
Class V-VI	1,935	"	0.29	0.45	0/1
College	1,935	Student is in collége vs lycèe	0.57	0.50	0/1
Cultural-material	1,905	The family owns a number of objects related to culture	1.78	1.20	0/4
Difficulty	1,815	Respondents finds it difficult to help the child with his homework	2.14	1.09	1/4
Economic sacrifices	766	Family is ready to make economic sacrifices for the sake of the child's education	0.64	0.48	0/1
Efforts in French	1,925	Student thinks effort is key to pass maths	4.28	1.50	0/6
Efforts in math	1,925	Student thinks effort is key to pass French	3.90	1.77	0/6
European	1,934	Father or mother born in Northern Europe	0.01	0.12	0/1
First-immigrant	1,935	First gen. Immigrant student from immigrant couple	0.02	0.14	0/1

|					
First-mixed	1,935	First generation immigrant student from mixed parental couple	0.004	0.06	0/1
Foreign-friends	1,816	Percentage of foreign-students-retards among the student's friends	1.53	4.29	0/99
French	1,935	Children of French-born father and mother	0.66	0.47	0/1
Friends-harassment	1,918	Student feels harassed by friends	1.33	0.53	1/3
Income	1,827	Income at the household level	170191.4	111460.8	0/900000
Indochinese	1,934	Father or mother born in Laos, Vietnam or Cambodia	0.01	0.10	0/1
Italian	1,934	Father or mother born in Italy	0.02	0.15	0/1
Log(income)	1,788	Logarithm of income	11.88	0.65	7.6/13.7
Mixed	1,935	Mixed immigrant student	0.09	0.28	0/1
Moroccan	1,934	Father or mother born in Morocco	0.03	0.17	0/1
Moslem	1,935	Student comes from a Muslim country	0.11	0.31	0/1
Parental-education	1,934	Highest diploma reached by the father	2.10	1.42	0/4
Paying-activities	1,878	Family spends money on extra-school educational activities	0.28	0.45	0/1
Second-immigrant	1,935	Second gen. Immigrant student from immigrant couple	0.09	0.28	0/1
Second-mixed	1,935	Second generation immigrant student from mixed parental couple	0.08	0.27	0/1
Spanish	1,934	Father or mother born in Spain	.022	0.15	0/1
Subjective-level	1,925	Student's estimated level of success	2.00	0.74	1/3
Teacher-harassment	1,915	Student feels harassed by teachers	1.50	0.56	1/3
Tunisian	1,934	Father or mother born in Tunisia	0.01	0.10	0/1
Turkish	1,934	Father or mother born in Turkey	0.01	0.07	0/1

A.2. The distribution of grades in 1995

Graph A.1. Distribution of mathematics 1995
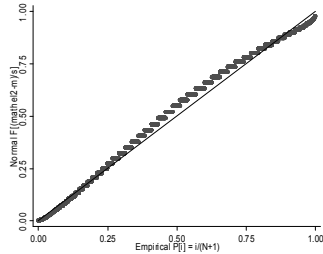
Graph A.2. Distribution of French 1995
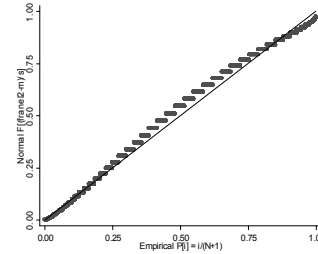
A.3. A multilevel estimation of the impact of school effects and the attendance to private schools

As it has been said in chapters two and five, the Panel-95 only allows a very limited approach to the study of school effects, even though they are known to be a significant determinant of school outcomes (Duru-Bellat, 2002). Logically, the students sampled in this survey study are clustered in schools. However, none of the questionnaires includes information about the school resources and general characteristics. This only permits to conduct a modest multilevel analysis to disentangle the variation due to group level (school) factors. Yet, the distribution of students across schools is problematic: 1244 schools are only represented by 1 student in the 1995 sample. This section of the appendix presents the results of a multilevel estimation run the grades in mathematics and French. To do so, the schools with only one student have been deselected from the valid sample.

The multilevel regression adds to the standard OLS the possibility of disentangling the variation existing along the micro (individual) and macro (country) levels (Snijders and Bosker,

1999). The standard one-level regression includes a single residual (R_{ij})

$$Y_{ij} = \beta_{0j} + \beta_{1j} x_{ij} + R_{ij}$$

The multiple-level regression allows adding many as random elements as we need to model variation between groups. The simplest multilevel regression is a *random intercept model,* which adds only an extra random parameter associated to the intercept. This represents the average value of randomly chosen school. The intercept is composed of an average value for the groups (γ_{00}) and a random one which reflects the variation across groups (U_{0j})

$$\beta_{0j} = \gamma_{00} + U_{0j}$$

Thus, our final model specification will be as follows

$$Y_{ij} = \gamma_{00} + U_{0j} + \beta_{1j} X_{ij} + R_{ij}$$

where the random effects are R_{ij} -the unexplained individual level residual-, and U_{0j} -the group level one. β_{1j} is a fixed effect that can be interpreted as a regular coefficient in a standard regression. Accordingly, X_{ij} is the vector of individual and school level fixed effects used to explain school performance.

The following table gives the results of the multilevel estimation. The fist models (M1 and F1) only include the intercept. The second models add the private school dummy so as to measure the amount of group level variation that is due to the distinction between private and public institutions.

The models suggest that there is an important amount of school-level variation. The interclass correlation coefficient ($ICC = \sigma(u)/[\sigma(u)+\sigma(e)]$) suggests that the variation across schools is around 30% both in mathematics and French in a model with no controls at all. However, adding the private school dummy to the model specification does not change much the indicator of group level unexplained variation ($\sigma(e)$).

Table A.3. Multilevel regression. School effects

	Maths M1	Maths M2	French F1	French F2
Private school		-2.94*** (0.49)		-2.94*** (0.46)
Cosntant	64.48*** (0.19)	67.03*** (0.46)	67.15*** (0.18)	69.69*** (0.43)
N	13271	13271	13297	13297
N. of schools	3026	3026	3027	3027
Chi^2	0.00	36.55***	0.00	41.14***
σ (u)	6.77	6.52	6.04	5.87
σ (e)	16.49	16.49	15.75	15.75

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

All the models included in this thesis have been re-estimated using a multilevel approach and cluster regressions in order to consider the distribution of students across schools. The conclusions obtained from those estimates do not change the arguments presented in the three empirical chapters.

A.4. Distribution of grades (1995-1998) across migrant status

Graph A.3. Distribution grades across migrant status (maths: 1995-1998)
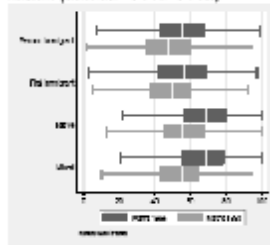
Graph A.4. Distribution grades across migrant status (French: 1995-1998)
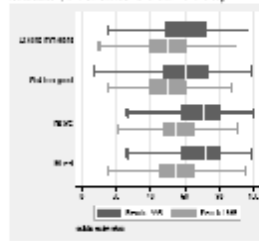
A.5. Distribution of the change in grades (1995-1998)

Graph A.5. Distribution of the change in grades in maths (1998-1995)
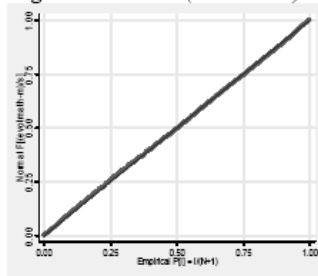
Graph A.6. Distribution of the change in grades in French (1998-1995)
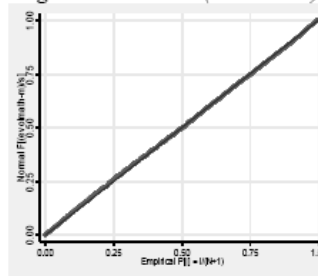
A.6. The rate of progress: Selection models

The assumption behind these models is that the loss of cases in the dependent variable results in sample selection. This is a form of censoring in which the truncation of a dependent variable depends upon the value of another variable. In this case, the independent variables (X) and the selection variables (S) must be

observed for all the sample, regardless of whether our dependent variable is observed or not. In this context, estimators obtained using OLS techniques will be both biased and inconsistent, but the Heckman two-stage modelling (Heckman, 1979) can capture the selection and produces consistent estimators (Breen 1996: 34-43).

Table A.4. Heckman selection: Evolution in maths

		Maths M1	Maths M2	French F1	French F2
Migrant status (ref. natives)	*1ˢᵗ imm.*	3.01* (1.24)	0.44 (1.08)	3.73*** (0.98)	0.51 (0.76)
	2ⁿᵈ imm.	3.01*** (0.58)	-0.17 (0.54)	2.58*** (0.47)	-0.62 (0.40)
	Mixed	-0.52 (0.51)	-0.91 (0.48)	-1.05* (0.44)	-0.69 (0.37)
Grades 1995			-0.44*** (0.01)		-0.54*** (0.01)
Constant		-15.63*** (0.24)	21.97*** (0.86)	-19.13*** (0.18)	26.25*** (0.69)
Selection equation	*Level 1995*	0.21*** (0.01)	0.20*** (0.01)	0.21 (0.01)	0.21*** (0.01)
	Constant	-0.66*** (0.04)	-0.65*** (0.03)	-0.69 (0.04)	-0.70*** (0.03)
N		14432	14432	14427	14427
Censored Obs.		3776	3776	3747	3747
Chi^2		33.94***	1775.32***	51.52***	3928.09***
Wald test (ρ)		130.63***	433.40***	433.85***	515.05***

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

The selection variables in the following equations are **select-math** and **select-French**. Both value 1 if the score for *evolmath*/*evolfrench* is not lost and 0 otherwise, that is, they have the value of 1 if there are valid registers for the grades obtained in

6th and 3rd year, and 0 if it the last information is lost. Selection can be a problem if students for whom we have observations in both years are the best ones in terms of school attainment. If this is really the case, bad students can be lost precisely because they do dropout. The selection variable is the average teacher's estimation about the students' general level in mathematics and French at the beginning of $6^{ème}$ (*level*). If we observe the dependent variable or we loose the case as a function of the school performance, the sample of students that is used for the estimation may over-represent good students, in which case the estimation is not reliable.

There seems to be a certain selection (the ρ statistic is significant in both cases). The selection happens in the expected direction since *level* is positive and significant in the selection equation of both models. This means that the higher the value of *level* (the results obtained in the evaluation exams), the more likely it is that the case will not be lost in the exams done in 3rd year. If we run the same models but using a different measure of school performance to model the students' selection, the results are similar.

The selection models also confirm that the reason why immigrant students progress faster is not that they learn more, but just that they are more likely to improve their performance since they depart from lower scores.

Table A.5. Heckman selection: Evolution in French

		Maths M1	Maths M2	French F1	French F2
Migrant status (ref. natives)	*1st imm.*	3.52** (1.26)	0.50 (1.13)	4.67*** (1.00)	0.55 (0.79)
	2nd imm.	3.62*** (0.58)	-0.28 (0.55)	3.73*** (0.47)	-0.78 (0.40)
	Mixed	-0.49 (0.51)	-0.80 (0.48)	-0.89* (0.44)	-0.77 (0.38)
Grades 1995			-0.35*** (0.01)		-0.46 (0.01)
Constant		-12.67*** (0.68)	14.44*** (1.12)	-14.97*** (0.34)	18.61*** (0.99)
Selection equation	*Level 1995*	-1.62*** (0.07)	-1.53*** (0.08)	-1.64 (0.07)	-1.63*** (0.07)
	Constant	0.66*** (0.01)	0.65*** (0.01)	0.66 (0.01)	0.66*** (0.01)
N		14449	14449	14444	14444
Censored Obs.		3781	3781	3752	3752
Chi^2		47.71***	1436.82***	90.42***	3655.88***
Wald test (ρ)		0.60	16.86	2.30	2.66

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

A.7. Selection models for the choice made in the orientation

A.7.1. Family choice

Select-family equals one if the value for *family-choice* is missing and 0 otherwise. What the selection equation assumes is that students are selected in the sample of valid cases as a function of their prior school performance. It is then possible that good students are over represented among those that have valid observations in the dependent variable. The selection variable is *level 1995* (average between the grades obtained in the evaluation

exams at the beginning of lower secondary) in the first equation and the average between the grades obtained in maths and French in the evaluation exams that take place at the beginning of lower secondary schooling.

The selection models indicate that there is some selection. The ρ statistic is significant in the two model specifications. Selection happens in the predicted way since having higher grades in the evaluation exams makes it more possible to count as a valid case in *family-choice*. On the other hand it is interesting to remark that using this estimation technique leaves no unexplained variance among the immigration categories.

Table A.6. Heckprob. Families' preferred options in upper secondary school

		M1	**M2**
Migrant status (ref. natives)	*First immigrant*	-0.04 (0.06)	0.20* (0.10)
	Mixed	0.13*** (0.04)	0.22*** (0.05)
	Second immigrant	-0.09** (0.03)	0.29*** (0.05)
School performance	*Level family est*		0.42*** (0.02)
	Mean brevet		0.26*** (0.01)
Constant		0.65*** (0.01)	-3.13*** (0.11)
Selection equation			
	Level 1995	0.30*** (0.01)	0.25*** (0.01)
	Constant	-1.13*** (0.03)	-0.87*** (0.04)
N		14517	14517
Censored Obs.		3619	3619
Chi^2		24.83***	1409.92***
Wald test (ρ)		1575.29***	234.97***

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

A.7.2. Final choice

Selectrack values 1 if the value for *final-choice* is not lost and 0 in the other case. The logic of the selection equation and the selection variables are the same than in the prior models. The first model uses *level* (the teachers' estimation about the student academic level) and the second one uses the average grade obtained in the evaluation exams in mathematics and French.

Tables A.7. Heckprob. Tracking in upper secondary school

		M1	M2
Migrant status (ref. natives)	*First immigrant*	-0.06 (0.06)	0.09 (0.09)
	Mixed	0.11** (0.04)	0.28*** (0.05)
	Second immigrant	-0.15*** (0.03)	0.23*** (0.04)
School performance	*Repeats college*		-0.22*** (0.01)
	Mean brevet		0.32*** (0.01)
Constant		0.61*** (0.01)	-2.49*** (0.09)
Selection equation			
	Level 1995	0.30*** (0.01)	0.24*** (0.01)
	Constant	-1.19*** (0.03)	-0.82*** (0.04)
N		15556	15556
Censored Obs.		3877	3877
Chi^2		43.29***	1645.18***
ρ		1810.31***	251.14***

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

A.8. The ethnic differentials in attainment before secondary schooling

Table A.8. Years in Preschool and elementary (OLS) and selection to SES (Logit)

		Preschool	R. elementary	SES
Migrant status (ref. natives)	*First immigrant*	0.13 (0.28)	0.54 (0.42)	-0.19 (0.43)
	First mixed	0.25 (0.38)	0.29 (0.78)	-0.58 (0.32)
	Second immigrant	0.09 (0.12)	0.58*** (0.20)	-0.21 (0.38)
	Second mixed	0.07 (0.10)	0.33 (0.18)	
Ethnicity (ref. French)	*Algerian*	-0.08 (0.12)	-0.20 (0.21)	0.47 (0.37)
	Tunisian	0.03 (0.17)	0.08 (0.32)	0.55 (0.49)
	Moroccan	0.11 (0.14)	-0.29 (0.23)	-0.86 (0.51)
	Spanish	-0.22 (0.20)	-0.44 (0.35)	0.33 (0.71)
	Portuguese	-0.12 (0.15)	-0.54* (0.27)	0.61 (0.44)
	Italian	-0.11 (0.21)	-0.04 (0.34)	0.45 (0.64)
	Turkish	-0.32 (0.24)	0.12 (0.38)	0.22 (0.62)
	Northern	0.25 (0.21)	-0.61 (0.47)	
	African	0.12 (0.19)	-0.57 (0.35)	0.47 (0.48)
	Indochinese	0.06 (0.23)	-1.10* (0.52)	
Student arrival		-0.79*** (0.07)	-0.14 (0.13)	
Cut points	*Cut 1*	-4.61*** (0.08)		

	Cut 2	-3.59*** (0.05)		
	Cut 3	-1.91*** (0.03)		
	Cut 4	1.11*** (0.02)		
Preschool			-0.13*** (0.04)	
School results	*Adaptation*		0.91*** (0.25)	
	Help		1.07*** (0.14)	
	Level 1995		-0.65*** (0.02)	
Class (ref class I II)	*Class II*		0.64*** (0.15)	
	Class IV a b		0.91*** (0.17)	
	Class V VI		1.20*** (0.15)	
	Class VII a b		1.21*** (0.14)	
	No activity		2.01*** (0.26)	
Level 1995				-0.85*** (0.04)
Constant			-1.57*** (0.22)	0.48** (0.16)
N		13720	10715	13831
F/Chi^2		304.33*	1632.43***	583.58***
Pseudo R^2/R^2		0.02	0.25	0.25

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

A.9. Linear restrictions on class, immigration and ethnicity

The regression analyses presented at the beginning of chapter six (table 6.2) appear to suggest that ethnic residuals disappear after controlling for immigration status and social origin. If this is the case, then, the disadvantage identified throughout the fifth chapter could not be mediated by ethnic specific factors. However, immigration and social origin could have a distinctive impact across ethnic groups and this could be understood as an ethnic residual. If ethnic disadvantage is not mediated by social origin or immigration status then, ethnics from any group would behave as others with the same migration characteristics and social origin. For instance, we would expect to find no differences between first generation immigrants from non mixed parental couples irrespectively of their ethnic origin.

In order to test this hypothesis, I split each ethnic category in three groups, corresponding to each of the three migrant status used in this thesis. As a result the sub-sample of immigrants is divided into thirty groups. These categories were introduced into the regression equations in the place of the former ethnic and immigration categories. Linear restrictions were then applied to the combination of each ethnic group within the same immigration categories. The hypotheses tested were as follows:

H_o: Null hypothesis	H_a: Alternative hypothesis
1st imm. & ethnicity$_1$ = 1st imm. & ethnicity$_2$	1st imm. & ethnicity$_1$ $\neq$ 1st imm. & ethnicity$_2$
2nd imm. & ethnicity$_1$ = 2nd imm. & ethnicity$_2$	2nd imm. & ethnicity$_1$ $\neq$ 2nd imm. & ethnicity$_2$
Mixed & ethnicity$_1$ = mixed & ethnicity$_2$	Mixed & ethnicity$_1$ $\neq$ mixed & ethnicity$_2$

Accordingly, if the null hypothesis is accepted, the differences existing between ethnics from groups 1 and 2 from a given migrant status disappear. These linear restrictions were applied under three different models for each dependent variable (the grades in mathematics and French):

- The first models only included the immigration categories and the ethnic groups.
- The second also controlled for the class-related variables that have been used in the 5th chapter.
- Finally, the third type of models included two of the prominent variables that are to be used in this sixth chapter: the family structure (number of siblings) and the female labour market participation.

The intractable amount of information provided by these tests complicates the presentation of the results. Thus, I decided to summarize it in a graphic representation. I now present a matrix (31x31) where each of the immigration and ethnic categories are compared with the rest of the ethnic groups with the an identical immigration status. If the result of the t-test confirms that the groups behave equally, the correspondent box in the matrix will be coloured. If on the contrary, they do not behave similarly, the box will remain white.

A single matrix summarizes the results of these tests for mathematics and French.

Graph A.7. Linear restrictions. Migrant status and ethnicity in mathematics and French in 1995

There are few unexplained ethnic effects under these model spefications. In the case of the grades in mathematics, significant residuals seem to be associated to the African and Indochinese immigrants. If we look at the results in French there are also scarce unexplained exceptions (Italians, Indochinese and Africans).

The same exercise has been done for the combination of ethnicity and parental education (using two categories: no education and university degree), and the household income ('no income' for the student to continue studying for as long as he wants to and the opposite answer). The results are presented in two matrixes.

Graph A.8. Linear restrictions. Ethnicity and Parental education

If we look at the unexplained differences in the education matrix we can see that they are mostly concentrated in the North Europeans and the Indochinese with no education in the case of mathematics and to a more limited extent in French.

If we turn to the matrix built for the household income, we can only see some unexplained ethnic variation in the case of the Turkish with more income available to invest in education.

Graph A.9. Linear restrictions. Ethnicity and income

A.10. Group migration histories

Cumulative causation is especially important to understand the evolution of migrant groups in different contexts (Portes 1995) and that the incorporation of the first movers shapes the prospects of their descendants and new comers. Accordingly, the next paragraphs review the differences in the group migration histories with a focus on the three dimensions highlighted by the modes of incorporation: the governmental policy towards the group, discrimination and ethnic networks.

A.10.1. Italians

The Italian immigration, massive from the 19th century but with a clear maximum before the Second World War, is the longest and most important inflow hosted by France (Blanc-Chaléard, 2003). It has benefited from a stable official support especially from 1946 when France instigated the arrival of Italian immigrants, one of the tasks entrusted to the *Organisation Nationale de l'Immigration* (ONI, 1946). In the 1954 census, the Italians were the largest foreign group in France (1/3 of the total foreign population). In general, the Italian migration to France was rather unskilled. The Italian population grew rapidly until 1962 when the fluxes stabilized, although they kept a working class prevalence throughout the 1960s and 1970s.

The incorporation of Italians moving to France was eased with the signature of the Treaty of Rome and the creation of the European Union (UE). The border between the South of France and the North of Italy was very porous. Regions such as the Cote d'Azur and the Haute Garonne had constant frontier immigration back and forth from the Northern Italian regions. The decrease in the number of arrivals was for the first time evident in the 1968 census (581 thousands) and never recovered (201670 according to the 1999 census). Italians did not organise much –although they

created a number of journals and newspapers such as *L'Italia Libera* and *Avanti-* partially because of their fast rates of naturalisations and the complete assimilation of the second generations. Accordingly, few Italians participated on the demonstrations of immigrants against the Fontanet Law in 1972-1973.

The Italians benefited from virtually the same rights than the natives and were not reported to be the object of intense discrimination. On the contrary Italians, as other southern Europeans, were though to be preferable to other culturally and phenotypically different groups. Their class prevalence has traditionally been working class, and this should be taken as the main constraint to their socioeconomic success.

A.10.2. Algerians

Algerian inflows were among the first to arrive in France because of the colonial link between the two countries since 1830. Algeria was traditionally considered a province of the French empire. The Algerian inflow was intense from 1946 to 1954 when the number of Algerians grew from 20,000 to 210,000 (Whitol de Wenden, 1998:137). This population had a bipolar distribution: a group from rural and deprived regions with virtually no presence of francophones; and another from urban areas with fluent French speakers.

Whitol de Wenden suggests that Algerian immigrants reproduced their home-social structures around the traditional institution of the *café*, which they spread in France. By the time Algerian regained its independence in 1962 there were some 350.000 Algerians in France most of whom were channelled by the *Organisation Nationale Algérien de la Main d'Ouvre* (ONAMO). The Evian Agreement (19th of March 1962) recognised the right to free mobility to Algerians in France. It also gave Algerians virtual equality with French natives in terms of rights and duties with the only exception of political rights. Also

in 1962 the *Amicale des Algériens en Europe* was created to support to immigrants from their departure, but also to encourage their eventual return. Uncertainty about the consequences of the independence, instigated the massive arrival of Algerians to France: 50,543 in 1963 and 43.721 in 1964. It was then when France suspended the Evian Agreement and cancelled the free right of entrance. From that moment, only those who could prove having an acceptable accommodation and a job permit got a residence permit after tight sanitary controls. This change in the French immigration policy against Algerians reflected the will to diversify the ethnic composition of the immigration fluxes. This also happened when the French government realised that the Algerians were rather autonomous and well organised, and that their demographic structure was aging in contradiction with needs of the France society (Whitol de Wenden 1998:140). Despite the efforts to limit the arrival of Algerians, they were some 846,000 by 1974 of whom only 450.000 in the active population.

As other North African groups, the Algerians have traditionally suffered from intense discrimination. (Felouzis 2003, Khellil 1991 :11, Whitol de Wenden 1998:335, Wieviorka 2002, Jelen 1993). Although the Algerians were a well organised group –the *Mouvement des Travailleurs Algériens* was created in 1971-, they did not participate in the riots against the Fontanet Law (1972-1973). This is partly explained because the focus of Algerians in France switched to international problems common to other Arabs and Muslims such as the Palestinian struggle.

A.10.3. Spanish

Up to 1964, the Spanish were the third largest immigrant group in France. But the Spanish fluxes differed from the other groups, since it was not an economic immigration until 1955. The Spanish Civil War (1936-1939) and the retaliation conducted by the Fascist dictator Francisco Franco (1892-1975) against the

Spanish Republicans, provoked a massive movement of political refugees to France through the Pyrenees. This group was highly politicised and organised. The Spaniards in France created publishing houses and newspapers, that sought to contribute to the resistance against the Spanish fascist regime.

The Franco-Spanish border was opened in the mid-1950s, and this resumed the legal Spanish economic immigration to in France. From the 1960s, the ONI though that the Spanish as appropriate substitutes of the Italians and estimulated their migration. By 1962, some 607,184 Spanish lived in France. Most of them were uneducated from rural areas and highly geographically dispersed in France. The inflow decreased greatly from 1963 because of the powerful attraction of the main industrial Spanish cities (Barcelona, Bilbao and Madrid). Because of the group heterogeneity the transition from a refugee-style migration to purely economic migration happened very quickly, the Spaniards did not developed stable organizational structures (Whitol de Wenden 1998:171). The very few traces of political activism that could be mentioned are related to resistance activities against the rule of Franco. Nevertheless, the Spanish had fluid contacts to several French trade Unions such as the *Confédération Général du Travail* (CGT) and the *Union Général des Travailleurs* (UGT) that also existed in Spain before the Civil War.

A.10.4. Portuguese

After 1964 the Portuguese inflow took over the Spanish. In 1962 there were only some 50,000 Portuguese in France but their number rose to 213,000 in 1965. Many factors explained such an increase. Portugal and France singed and agreement to channel the immigration inflows in 1963, but in 1964 the Portuguese dictator Antonio Oliveira Salazar (1889-1970) blocked the exit of workers so as to avoid the contagion of the French model of extreme syndicalism and any source of political destabilization. Instead, the regime promoted migration to (former) African colonies.

Salazar also restricted the exits to youngsters that escaped from a military service of more than four years, even though the Portuguese government warned them that leaving illegally prevented an eventual return. All these instigated a massive clandestine migration to France, and undocumented Portuguese workers could not join the official plans for immigrant accommodation, and lived in shanty dwellings in the cities' outskirts.

The beginning of the colonial wars in Angola (1961-1974) and Mozambique (1964-1974) increased migration to Western Europe, and especially to France. From 1969 to 1971 the Portuguese government, implemented intense economic reforms that ended with the protectionist agricultural policy (close to 50% of the Portuguese population was rural at the time). This increased internal migration from the deprived South to the north of the country, mainly to Lisbon and Porto but also international emigration.

In 1974, some 812,000 Portuguese live in France. This population reproduced the regional cleavage between north and south Portugal. The south of Portugal is divided into large estates, and land ownership is very infrequent while in the north, peasants used to own small portions of land. The south of the country was much more politicised than the very catholic North –the Portuguese Communist Party had deep roots in the south of the country. These differences prevented the Portuguese immigrants to organise homogenously, although they did it to some extent (Jelen 1993:139-140). The cultural associations founded in the mid-1960s reflected the regional division like the *Association des Orginaries de Portugal* (AOP) linked to the Portuguese Communist Party and the *Ligue des Portugais pour L'enseignement de la Culture Populaire* a catholic based organisation. The political resistance to Salazar was reinforced with the creation of certain political groups in France in the 1970s such as the *Partie Communiste Portugais* (1970), *Le Front Patriotique de Libération Nationale* (1973).

A.10.5. Morocans

The Moroccan immigration to France was not important until the signature of the migration agreement between France and the Kingdom of Morocco in 1963. From 1963 to 1966, the Moroccan population in France grew in some 67,000 individuals, most of which came from the rural south of the Kingdom. Throughout the 1960s, Morocco witnessed intense rural-urban migration that left clear traces in the chaotic urbanization of big cities such as Casablanca, Rabat and Meekness. These cities were the first step for many rural immigrants, which made that even those migrating from big cities could have had a rural origin.

The Moroccan immigration benefited from the French intention of reducing the presence of the Algerian immigration. By 1974 Moroccans were 270,000. The associative fabric of the Moroccans in France is divided into two groups. The first of them is the resistance to the totalitarian regime headed by King Hassan II (1929-1999). Within this group the most important organization was the *Association des Marocains en France* and the magazine *Communauté*. As a reaction, the Moroccan Embassy sponsored the association of Moroccans in consulate-based organizations such as the *Amicale des Marocaines en France*. These dense networks of associations explain why the Moroccans were so active in the 1972-1973 revolts.

A.10.6. Tunisians

Tunisian immigrants begin to arrive in France in 1963 after the signature of an immigration agreement between the two countries which was suspended only a few months after in revenge for the nationalization of French colonial lands. This agreement sought to limit the arrival of Algerians in order to rejuvenate the immigration inflows. The interruption of the 1963 agreement slowed down the arrival of Tunisians but did not stop it.

The Tunisian immigration in France is among the most recent ones and the newest from North Africa. In 1970 there were some 96,000 Tunisians in France; 149,000 in 1974, 180,000 in 1978 and 210,000 in 1980. The Tunisian immigration to France was generally speaking highly educated and mainly from urban areas (Whitol de Wenden 1998:176). Under the rule of Habib Bourghiba (1903-2000), Tunisia did huge investments in education and transformed the educational system into a copy of the French one. In the consecution of this goal the government passed unpopular measures, including the reform of the prestigious *Zaytuna* Islamic University, integrating it in the University of Tunis. Bourghiba, a convinced Francophile fond of the political example of Charles De Gaulle imposed the bilingualism of the Tunisian society, so Tunisians in France tended to be fluent French speakers, including those from rural areas.

In connexion with the strong leftist Tunisian movements –the ruling *Destour* party was one of the leading voices in the Arab socialism in the 1960s-, Tunisian immigrants traditionally participated intensively in the class struggles, including the immigrant demonstrations against the Fontanet law in 1972-1973. As a reaction to this vast implication of the Tunisian community in the 1972-1973 revolts, the Tunisian government, that traditionally prioritised the relationship with France, decided to reorganise the fluxes of Tunisians leaving to France and the associative life of its nationals in the host metropolis. The Destour Party was behind the *Amicale des Travailleurs Tunisiens en France* and other initiatives such as the yearly seminars for Tunisians working abroad organised each summer in the main Tunisian cities.

A.10.7. Black Africans

Immigrants from other African countries represent the most recent immigration fluxes from Africa. Very few arrived in France after the independence of the old colonies because the French

government did not promote the migration of Africans excluding the Tunisians and Moroccans. Nonetheless some of them did so after combating with the French Army in the First and Second World War, although their scarce access to the French nationality prevented them from effectively integrating -the Code de l'Indigénat, did not agree French citizenship to the colonized. In 1946, the creation of the Union Française spread citizenship to the colonies. In the 1975 and 1982 censuses, the largest African national groups were the Senegalese (14920 and 33240), the Maliens (12530 and 24340), the Camerounais (8275 and 18807), the Ivoriens (6645 and 11680) and the Congoleans (3435 and 7620) (Witte, 2003:347-349). Only one third of them were students, being the rest active workers. The *Union General des Travailleurs Sénégalaises en France* was founded as early as in 1961, and it was used by the consulate to support newcomers.

In general, the African immigration to France is unqualified. It is estimated that only 1% of the African first movers to France are educated (Whitol de Wenden 1998:180) and Tribalat (1995:26) argues that over one half of Black Africans in France come from a working class/peasant background. Africans are poorly organised and only very rarely participated in any type of demonstration, revolts or any action for the improvement of their living conditions.

The African inflow to France is still intense, especially from rural Soninké regions in Mali, Mauritania and Senegal. Part of the African immigrants that arrive to the South of Spain and Italy have France as final destinations.

A.10.8. Indochinese

Cambodia, Laos and Vietnam formed the former Indochina, an eastern province of the French Colonial Empire. Within these nationalities, the Vietnamese are the largest group in France. The three groups have a similar migration history. The Indochinese immigrants are the largest Asian group in France. Their averaged

profile is very skilled. Jelen estimates that almost 50% of Vietnamese residents in France –first and second generations- have at least a BAC degree, and a significant number of them reach the BAC+4 -four years of university studies- (Jelen 1993:145).

The first Indochinese immigrants arrived to France as early as in 1945. These were highly educated individuals that left the country in disagreement with the new political regimes established after the independence. Nevertheless the Indochinese fluxes to France differ depending on their year of migration. Those arrived just after the Indochinese independence war are more educated than those arrived after the settlement of communist regimes in Laos and Vietnam. Within the first wave, 35% came from families whose head had an intermediate or superior occupation, versus only 24% of those coming from the second wave. Similarly the first group had only a 4% of immigrants from a peasant origin versus 16% from the latter group (Tribalat 1995:26-27). Tribalat says that 17% of Laotians and 13% of the Vietnamese immigrants are former policemen and military staff that emigrated in order to escape from the taught re-education programs designed by the communist in their homelands (Tribalat 1995:25).

But more Indochinese immigrants arrived in France after the Vietnam War and also since 1975 and all along the 1980s as political refugees. Many of these refugees are members of the pre-communist ruling classes and militaries. Indochinese immigrants continue to arrive to France as asylum seekers although in smaller numbers and with a less qualified profile than those arrived before 1975. Currently, some newcomers do not even have fluency in French because of the poor implantation of French as second language in these countries.

In his analysis of the causes of the Indochinese success, Jelen describes tightly knitted ethnic communities rich in intra-group trust and solidarity, cultivating the sense of familial obedience and groups with a high level of matriarchy. This description draws very close communities where the main language used is their

homeland one, very attached to their original religion and religious parties. Jelen argues that second generations remain much attached to their parents' homeland traditions (Jelen 1993).

A.10.9. Turks

The Turks represent one of the newest migration inflows to France, although the first Turkish immigrants arrived in the 1960s. The Turks have massively entered France as undocumented immigrants and have much benefited from the regular process of legalizations starting in 1981. The Turk inflow was at the end of the 1990s rapidly growing because of the processes of family reunification since it is frequent that French-born descendants of Turkish migrants marry in origin even if only with the parents' agreement. Many Turks continue to ask for political asylum in France, especially the Kurds coming the South East of the country. This explains why most of them (60%) come from a rural origin and why 40% are aged 25 or less. The most important characteristic of the Turkish migration to France is its community closure, something institutionalised thanks to the pattern of agreed marriages described above (Petek:salom, 1998).

A.11. Ethnic differentials in the rate of progress

As I did in chapter 5, I estimated separate models for the rate of progress in mathematics and French using the standard OLS regression and Heckman's selection techniques (A.11). The broad picture indicates that no differences persist across ethnic groups after controlling for the immigrant status variables, and those relations that remain significant fell after controlling for the initial

grade obtained in mathematics and French in the evaluation exams.[1]

As explained in chapter five, the literature predicts a faster rate of progress for immigrants than for natives. My empirical evidence shows that in a model where only the dummies for ethnic minorities are introduced with no controls, ethnics tend to progress faster than natives. This finding is especially evident for those groups that begun with lower scores in the evaluation exams – Moroccans and Africans and to a different extent Algerians and Turkish. But this advantage is captured by the immigration categories and most of the ethnic variables loose their positive sign.

The models also show that this positive trend to progress faster than the children of French-born families does not mean that ethnics or immigrants learn more since their significant difference disappears controlling for the grade of departure –it is easier to progress at a faster rate when you depart from a lower than from higher point.

Table A.9. OLS (Heckman). Rate of progress. (1ˢᵗ part: maths)

		Evol. math1	Evol. math2	Heckman math
Migration status (ref. natives)	*1st imm.*	2.27 (1.34)	-0.65 (1.17)	0.78 (1.00)
	2ⁿᵈ imm	1.86 (0.78)	-1.11 (0.71)	-1.31* (0.62)
	Mixed	-1.29* (0.58)	-2.00*** (0.53)	-1.80*** (0.46)
Ethnicity (ref. French)	*Algerian*	-0.04 (0.91)	-0.39 (0.83)	-0.47 (0.72)

---

[1] Only one exception stands in this section. Tunisians seem to progress faster in mathematics controlling for the point of departure both in the regression and Heckman models. As it can be seen in the OLS model, this effect disappears after controlling for parental education.

	Moroccan	3.02** (1.05)	1.24 (0.99)	0.82 (0.86)
	Tunisian	5.47** (1.63)	4.87** (1.50)	4.27*** (1.24)
	Italian	3.29* (1.659	2.21 (1.46)	2.07 (1.57)
	Turkish	-2.19 (2.27)	-3.54 (2.13)	-2.20 (1.66)
	Portuguese	1.39 (1.34)	1.09 (1.22)	0.66 (1.03)
	Spanish	0.67 (1.70)	1.157 (1.57)	1.02 (1.43)
	African	3.63* (1.36)	1.72 (1.23)	1.29 (1.04)
	Northern	0.06 (1.35)	2.38 (1.25)	2.34 (1.24)
	Indochinese	-1.80 (1.77)	0.07 (1.68)	0.33 (1.52)
Floor level	*Math 1995*		-0.45*** (0.01)	-0.47*** (0.02)
	French 1995			
Constant			-13.18*** (0.16)	10.94*** (0.66)	12.78*** (1.39)
Selection equation				
	Evaluation 1995			0.04*** (0.00)
	Constant			-1.05*** (0.05)
ρ				-0.16
N		11,386	11,386	16,643
Censored Obs.				4,003
R^2		0.01	0.14	
F/Chi2		5.82***	113.02***	655.85***

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

Table A.9. OLS (Heckman). Rate of progress. (2nd part: French)

		Evol. French1	Evol. French2	Heckman French
Migration status (ref. natives)	*1st imm.*	4.56***	0.72	1.25
		(1.06)	(0.84)	(0.74
	2nd imm	3.49***	0.02	0.02
		(0.64)	(0.55)	(0.46
	Mixed	0.14	-0.43	-0.22
		(0.47)	(0.39)	(0.34
Ethnicity (ref. French)	*Algerian*	-1.67*	-1.81**	-1.92***
		(0.77)	(0.64)	(0.54
	Moroccan	1.26	-0.51	-0.53
		(0.85)	(0.73)	(0.64
	Tunisian	-0.11	-0.42	-0.67
		(1.20)	(1.02)	(0.91
	Italian	0.07	-0.16	-0.37
		(1.6)	(1.24)	(1.158
	Turkish	2.19	-2.27	-1.88
		(2.01)	(1.68)	(1.23
	Portuguese	0.08	-0.22	-1.16
		(1.05)	(0.83)	(0.76
	Spanish	-1.85	-1.07	-1.24
		(1.37)	(1.13)	(1.06
	African	1.57	0.53	0.57
		(1.12)	(0.93)	(0.77
	Northern	-1.51	0.79	0.58
		(1.30)	(1.07)	(0.92
	Indochinese	-2.55	-0.55	-0.51
		(1.32)	(1.14)	(1.12
Floor level	*Math 1995*			
	French 1995		-0.68***	-0.74***
			(0.01)	(0.01)
Constant		-15.50***	17.55***	22.06***
		(0.13)	(0.56)	(0.87)
Selection equation	*Evaluation 1995*			0.04***
				(0.00)
	Constant			-1.05***
				(0.05)
ρ				-0.41***
N		11,417	11,417	16,643
Censored Obs.				4,000
R^2		0.01	0.3	
F/Chi2		8.06***	279.79***	2751.15***

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

A.12. Ethnic differentials in the track chosen in upper secondary school

Initially immigrant families from some ethnic backgrounds seem be more inclined towards the vocational than French-born families (table A.10). This effect is only statistically significant for Algerians, Moroccans, Portuguese and Turkish in a model where no extra controls are introduced. If the model specification includes the immigration categories the only significant relation is found in the Turkish coefficient. As it happened with the analyses for the rate of progress, the effect or preferring a vocational option is not an ethnic but an immigration effect.

Table A.10. OLS. Ethnic differentials in family choice

		Model 1	**Model 2**
Migrant status (ref. natives)	*First immigrant*	-0.02 (0.04)	0.06* (0.03)
	Mixed	0.09*** (0.02)	0.08*** (0.02)
	Second immigrant	-0.00 (0.03)	0.09*** (0.03)
Ethnicity (ref. French)	*Algerian*	-0.08** (0.03)	-0.05 (0.03)
	Tunisian	-0.01 (0.05)	-0.02 (0.04)
	Moroccan	-0.07* (0.04)	-0.02 (0.03)
	Spanish	-0.05 (0.05)	-0.02 (0.04)
	Portuguese	-0.10* (0.04)	-0.06 (0.04)
	Italian	-0.09 (0.05)	-0.06 (0.04)
	Turkish	-0.27*** (0.06)	-0.14** (0.06)

	Northern	0.06 (0.05)	-0.02 (0.04)
	African	-0.09 (0.05)	0.00 (0.04)
	Indochinese	-0.04 (0.06)	-0.10 (0.05)
School results	*Level family estimation*	0.14***	0.58*** (0.01)
	Mean brevet		0.07*** (0.00)
Constant		0.68*** (0.00)	-0.51*** (0.02)
	N	11659	10911
	F	5.66***	560.22***
	R^2	0.01	0.34

Legend: β and standard errors.
P. level * $p<.05$; ** $p<.01$; *** $p<.001$.

The negative effect of the immigration status disappears when the family's estimation about the student academic level –a proxy for subjective probability of school success- is introduced. After that, no ethnic group shows any disadvantage in comparison to natives and among the immigration variables, only *first-immigrant* does.[2]

---

[2] This is explained by the bigger financial need that immigrant families have at their arrival to the host country.

A.11. OLS. Ethnic differentials in final choice

		Model 1	**Model 2**
Migrant status (ref. natives)	*First immigrant*	-0.03 (0.04)	0.03 (0.03)
	Mixed	0.10*** (0.03)	0.09*** (0.02)
	Second immigrant	-0.03 (0.03)	0.08** (0.02)
Ethnicity (ref. French)	*Algerian*	-0.10** (0.03)	-0.04 (0.02)
	Tunisian	-0.04 (0.05)	-0.02 (0.04)
	Moroccan	-0.09* (0.04)	-0.02 (0.03)
	Spanish	-0.06 (0.05)	-0.02 (0.04)
	Portuguese	-0.11** (0.04)	-0.05 (0.03)
	Italian	-0.11 (0.06)	-0.04 (0.04)
	Turkish	-0.29*** (0.06)	-0.15** (0.05)
	Northern	0.06 (0.05)	-0.02 (0.04)
	African	-0.11* (0.05)	-0.02 (0.04)
	Indochinese	-0.02 (0.07)	-0.07 (0.05)
School results	*Mean brevet*		0.08*** (0.00)
	Repeats college		-0.10*** (0.00)
Constant		0.66*** (0.00)	-0.19*** (0.02)
	N	11456	10529
	F	8.77***	788.42***
	R^2	0.01	0.41

Legend: β and standard errors.
P. level * p<.05; ** p<.01; *** p<.001.

With respect to the final track chosen, an ethnic residual is only found if no controls are added for the estimation (table A.11). In such a model, again the Algerians, the Moroccans, the Turks and the Portuguese present negative and statistically significant coefficients. Once again, this effect is absorbed controlling for the immigrant status. When controlling for the student's school performance –number of years in secondary schooling and grades in the Brevet-, this immigration effect disappears, and this remains under any the model specification used in chapters five and six.

A.13. Principal component analyses for the choice of schools

The correlation between the school choice variables suggests the existence of two dimensions in the motivation of families when they choose the school for their children. The association is stronger between the reputation and the type of public that attends the school; and the distance and recommendation reasons.

Table A.12. Correlation matrix. Reasons to choose a school

	Reputation	**Type of students**	**Sector school**	**Nearest home**
Reputation	1			
Type of students	0.40	1		
Sector school	-0.13	-0.06	1	
Nearest home	-0.18	-0.10	0.28	1

The principal component analysis indicates that two factors have an Eigen value above 1. The result of the Bartlett test and the distribution of loads confirm the existence of two clear dimensions.

Table A.13. Share of explained variance, KMO and Bartlett test

Factors	Eigen value	% variance	Cum. %
1	1.58	39.49	39.49
2	1.11	27.75	67.24
KMO	0.60		
Bartlett Chi^2	5060.18***		

Note: Dimensions are accepted if eigen-value ≥1.

Table A.14 School choice. Rotated Factor Loadings (Varimax)

	Factor 1	Factor 2
Reputation	0.16	**0.81**
Type of students	-0.02	**0.85**
Indicated by school	**-0.81**	-0.01
Near home	**-0.78**	-0.13

The factors could be interpreted as follow:

$F_1 \rightarrow$ Non academic reasons to choose a school (default selected by the previous institution, the selected school is the closest to the family's residence)

$F_2 \rightarrow$ Academic reasons to choose a school (the type of students that attend the school, the students in this school obtain good results, or because of the range of study options)

A.14. Principal component analysis for conversations about education

The highest correlation reaches the value of 0.7 between the frequency of conversations about the student's teachers and his life in class.

Table A.15. Correlation matrix. Conversations about education

	What he learns	Life in class	His teachers	Academic future	Professional Future
What he learns	1				
His life in class	0.49	1.00			
His teachers	0.49	0.67	1.00		
Academic future	0.32	0.32	0.35	1.00	
Prof. Future	0.25	0.25	0.28	0.75	1

The principal component analysis reveals the existence of two clear dimensions.

Table A.16. Conversations. Rotated factor loadings (Varimax)

	Components	
	1	**2**
What he learns	**0.75**	0.18
Class life	**0.86**	0.16
His teachers	**0.85**	0.19
Academic future	0.21	**0.91**
Prof. future	0.11	**0.93**

A.17. Share of explained variance, KMO and Bartlett test

Component	Eigen value	% variance	Cum. %
1	2.68	53.51	53.51
2	1.19	23.86	77.37
KMO	0.771		
Bartlett Chi^2	38218.3***		

Note: Dimensions are accepted if eigen-value ≥ 1.

The factors could be interpreted as follow:

$F_1 \rightarrow$ Conversations about daily life in class (about what he learns, his life in class and his teachers).

$F_2 \rightarrow$ Conversation about the student's future (academic and professional future)

BIBLIOGRAPHY

Ackerlof, George A. 1997. "Social distance and social decisions." *Econometrica* 65: 1005-1027.

Adam, Heribert, and Hermann Buhr Giliomee. 1979. *Ethnic power mobilized: can South Africa change?* New Haven: Yale University Press.

Akhtar, Shahnaz, and Ian Stronach. 1986. "They call me blacky." Pp. 23 in *The Times educational Supplement*.

Alba, Richard, and Roxane Silberman. 2002. "Decolonization immigrations and the social origins of the second generations: the case of North Africans in France." *International Migration Review* 36: 1169-1193.

Astone, Nan Marie, and Sara McLanahan. 1991. "Family structure, parental practices and high school completion." *American Sociological Review* 50: 309-320.

Baker, David, Yilmaz Esmer, Gero Lenhart, and John Hayer. 1985. "Effects of Immigrant Workers in Educational Stratification in Germany." *Sociology of Education* 58: 213-227.

Baker, Martin. 1981. *The New Racism*, Junction Books: London.

Ballion, Robert. 1986. "Le choix du collège: le comportement «éclairé» des familles." *Revue Française de Sociologie* 27: 719-734.

Ballion, Robert., and Irène Théry. 1986. "L'assouplissement de la sectorisation à l'entrée en 6ème: analyse de l'expérience (2ème partie)." in *Laboratoire d'économétrie de le l'École Polytechnique*. Paris: CNRS.

Barnard, Christian H. 1958. "Some Sources for French Educational History during the Revolution and the Napoleonic Period" *British Journal of Educational Studies* 7: 56-63.

Barro, Robert, and Jong-Wa Lee. 1993. *International Comparisons of Educational Attainment*: NBER Working Paper.

Bastide, Henri. 1982. "Les Enfants d'Immigrés et l'Enseignement du Français." *Travaux et Documents INED-INETOP* 97.

Becker, Gary S. 1957. *The Economics of Discrimination*. Chicago: University of Chicago Press.

—. 1971. *The Economics of Discrimination*. Chicago: The University of Chicago Press.

—. 1981. *A Treatise on the Family*. Cambridge: Harvard University Press.

—. 1993. *Human capital: a theoretical and empirical analysis, with special reference to education*. Chicago: The University of Chicago Press.

Becker, Gary S, and Gregg Lewis. 1973. "On the Interaction between the Quantity and the Quality of the Children." *Journal of Political Economy* 81: 269-278.

Becker, Gary Stanley. 1976. *The economic approach to human behaviour*. Chicago: University of Chicago Press.

Becker, Gary Stanley, and Nigel Thomes. 1993. "Human capital and the rise and fall of families." Pp. 257-298 in *Human Capital: A theoretical and empirical analysis with special reference to education,* edited by Gary Stanley Becker. Chicago: The University of Chicago Press.

Bell, Daniel. 1976. *The Coming of Post-Industrial Society*. Harmondsworth: Penguin.

Ben-Tovim, Gideon, John Gabriel, Ian Law, and Kathleen Stredder. 1986. "A Political Analysis of Local Struggles for Racial Equality." Pp. 131-52 in *Theories of Race and Ethnic Relations*, edited by J Rex and D Mason. Cambridge: Cambridge University Press.

Berthoud, Richard. 1998. *The Incomes of the Ethnic Minorities*. Colchester: University of Essex: Institute for Social Economic Research.

Betts, Julian R., and Magnus. Lofstrom. 2000. "The Educational Attainment of Immigrants: Trends and Implications." Pp. 51-116 in *Issues in the Economics of Immigration*, edited by George Borjas. Chicago: The University of Chicago Press.

Blanc-Chaléard, Marie-Claude. 2003. *Les Italiens en France depuis 1945*. Rennes: Presses Universitaires de France.

Blau, Peter Michael, and Otis Dudley Duncan. 1967. *The American occupational structure*. New York: Wiley.

Blum, Alain. 1998. "Comment décrire les immigrés? À propos de quelques recherches sur l'immigration." *Population* 53: 569-587.

Bogenschneider, Karen. 1997. "Parental Involvement in adolescent schooling: a proximal process with transcontextual validity." *Journal of Marriage and the Family* 59: 718-733.

Boocock, Sarane Spence. 1995. "Early Childhood Programs in Other Nations: Goals and Outcomes." *The future of Children* 5: 94-114.

Borjas, George. 1985. "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants." *Journal of Labor Economics* 3: 463-489.

—. 1987. "Self Selection and the Earnings of Immigrants." *American Economic Review* 77: 531-553.

—. 1992a. "Ethnic Capital and Intergenerational Mobility." *The Quarterly Journal of Economics* 107: 123-150.

—. 1992b. "National Origin and the Skills of Immigrants." Pp. 17-47 in *Immigration and the Work Force*, edited by G. Borjas and B. Freeman Richard. Chicago: The University of Chicago Press.

—. 1993. "The Intergenerational Mobility of Immigrants." *Journal of Labour Economics* 11: 113-115.

—. 1994a. "Long Run Convergence in Skills Differentials: The Children and the Grand Children of the Great Migration." *Industrial Labour Relations Review* 47: 553-573.

—. 1994b. "The Economics of Immigration." *Journal of Economic Literature* 32: 1667-1727.

—. 1995. "Ethnicity, Neighbourhoods and Human Capital Externalities." *The American Economic Review* 85: 365-390.

—. 1995."Assimilation and Changes in Cohort Quality Revisited: what happened to immigrants in the 1980's." *Journal of Labour Economics* 13: 201-245.

—. 2000. "The Economic Progress of Immigrants." Pp. 15-50 in *Issues in the Economics of Immigration*, edited by G. Borjas. Chicago: The University of Chicago Press.

—. 2000. *Issues in the economics of immigration*. Chicago: University of Chicago Press.

Borjas, George J., and Richard B. Freeman. 1992. *Immigration and the work force: economic consequences for the United States and source areas*. Chicago: University of Chicago Press.

Borjas, Georges, and Stephen G. Bronars. 1991. "Immigration and the Family." *Journal of Labor Economics* 9: 123-248.

Boudon, Raymond. 1974. *Education, opportunity, and social inequality; changing prospects in Western society*. New York: Wiley.

—. 1996. "The 'Cognitivist Model': A Generalized "Rational choice-Model." *Rationality and Society* 8: 123-150.

Boulot, Serge, and Danielle Boyzon-Fradet. 1988. *Les immigrés et l'école: une course d'obstacles. Lecture de chiffres (1973-1987)*. Paris: L'Harmattan-CIEMI.

Bourdieu, Pierre. 1974. "The School as a Conservative Force." Pp. 1-39 in *Contemporary Research in the Sociology of Education London*, edited by S.J. Eggleston. Methuen.

—. 1977. "Cultural Reproduction and Social Reproduction." Pp. 487-511 in *Power and ideology in education*, edited by Jerome Karabel and A. H. Halsey. New York: Oxford University Press.

__. 1985. "The Forms of Capital". Pp. 241-258 in Richardson, J.G. (Ed), Handbook of Theory and Research for the Sociology of Education. New York: Greenwood, 1985.

Bourdieu, Pierre, and Luc Boltanski. 1981. "The education System and the Economy." Pp. xi, 445 in *French sociology: rupture and renewal since 1968*, edited by Charles C. Lemert. New York: Columbia University Press.

Bourdieu, Pierre, and Jean Claude Passeron. 1977. *Reproduction in education, society and culture*. London; Beverly Hills: Sage Publications.

Bratsberg, Bernt, and Dek Terrell. 1997. *School Quality and Returns to Education of US Immigrants*. Kansas: State University.

Breen, Richard. 1996. *Regression Models: censored, sample selected or truncated data*. London: Sage University Press.

—. 1999. "Beliefs, Rational Choice and Bayesian Learning." *Rationality and Society* 11: 463-480.

—. 2004. *Social Mobility in Europe*. Oxford: Oxford University Press.

—. 2001. "Class, Mobility and Merit: The Experience of Two British Birth Cohorts." *European Sociological Review* 17: 81-101.

Breen, Richard, and Jan O. Jonsson. 2000. "A Multinomial Transition Model for Analysing Educational Careers." *American Sociological Review* 65: 754-772.

Breen, Richard, and John H. Goldthorpe. 1997. "Explaining Educational Differentials: Towards a Formal Rational Action Theory." *Rationality and Society* 9: 275-305.

__. 1999. "Class inequality and meritocracy: a critique of Saunders and an alternative analysis." *British Journal of Sociology* 5: 1-27.

Breen, Richard, and Ruud Luijkx. 2004. "Social Mobility in Europe between 1970 and 2000." Pp. 37-75 in *Social Mobility in Europe*, edited by Richard Breen. Oxford: Oxford University Press.

Breen, Richard, Ruud Luijkx, and Walter Muller. 2005. "Non-persistent inequality in educational attainment." in *EDUCSOC-EQUALSOC*. Mannheim.

Bressoux, Pascal. 1993. "Les performances des écoles et des classes. Le cas des acquisitions en lecture." in *Les dossiers education et formations*. Paris: Ministère de l'Éducation Nationale.

Bressoux, Pascal, and Agnes Desclaux. 1991. "La lecture à l'école élémentaire: recherche de progrès des élèves." *Éducations et formations* 27: 67-81.

Brinbaum, Yaël, and Annick Kieffer. 2005. "D'une génération à l'autre, les aspirations éducatives des familles immigrantes: ambition et persévérance." *Education et Formations* 72: 53-75.

Brinbaum, Yaël and Héctor Cebolla-Boado. 2007. The school careers of ethnic minority youth in France: success or disillusion? *Ethnicities*, 7 (pages to be confirmed).

Brocholichi, S. 1998. "Inégalités cumulatives, logique de marché et renforcement des inégalités scolaires." *Ecole, Ville, Intégration* 114: 35-52.

Brooks-Gunn, Jeanne, Greg J. Duncan, Pamela Klebanov, and Naomi Sealand. 1993. "Neighbourhoods Influence Child and Adolescent Development." *American Journal of Sociology* 99: 353-395.

Brown, Christopher. 2000. "Seeing the Invisible Color Black: Race-Ing the Collegiate Desegregation Discourse." *Race, Ethnicity and Education* 3: 259-70.

Brubaker, Rogers. 1992. *Citizenship and Nationhood in France and Germany*. Cambridge: Harvard University Press.

Caille, Jean Paul. 2000. "Qui sort sans qualification du système éducatif?" *Education et Formation* 57: 19-37.

—. 2003. *Panel d'élèves du second degré. Recrutement 1995*. Paris: Ministère de l'Education National.

—. 2005a. " Les projets d'avenir des enfants immigrants." Pp. 11-22 in *Les immigrés en France édition 2005*, edited by C. Tavanm: INSEE.

—. 2005b. "Le vécu des phases d'orientation en fin de troisième et de seconde." *Éducation et Formations* 72: 72-99.

Caille, Jean Paul, and Sophie O'Prey. 2002. "Les familles immigrées et l'école française: un rapport singulier persiste même après un long séjour en France." Pp. 149-159 in *Données sociales. La société française 2002-2003*. Paris: INSEE.

Cameron, Stephen V., and James Heckman. 1998. "Life Cycle Schooling and Dynamic Selection Bias: Models and Evidence for Five Cohorts of American Males." *The Journal of Political Economy* 11: 262-333.

Carb, David, John DiNardo, and Eugena Estes. 2000. "The More Things Change: Immigrants and the Children of Immigrants in the 1940s, the 1970s and 1990s." Pp. 227-270 in *Issues in the Economics of Immigration*, edited by G. Borjas. Chicago: University of Chicago Press.

Carliner, Geoffrey. 1980. "Wages, Earnings and Hours of First, Second and Third Generation American Males." *Economic Inquiry* 18: 87-102.

Carrington, Bruce, and Barry Troyna. 1988. "Combating racism through political education." Pp. 205-223 in *Children and Controversial Issues: Strategies for the Early and Middle Years of Schooling*, edited by B. Carrington and B Troyna. Lewes: Falmer Press.

Case, Anne, and Lawrence Katz. 1991. "The Company You Keep: The Effects of Family and Neighborhood on Disavantaged Youths." *NBER Working Paper*.

Cebolla-Boado, Héctor. 2007a. "La concentración de inmigrantes en las escuelas británicas: un análisis de la elección de centros" *Revista Española de Investigaciones Sociológicas*, 119. (forthcoming)

—. 2007b. "Immigrant concentration at schools: peer-pressures in place?" *European Sociological Review*. 23(1): 1-16.

Clerc, Paul. 1964. "Les élèves de nationalité étrangère." *Population* 19: 559-562.

Coleman, James Samuel. United States. 1966. *Equality of educational opportunity*. Washington: U.S. Dept. of Health Education and Welfare Office of Education.

—. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94: 95-129.

Coleman, James Samuel, Kathryn Schiller, and Barbara Scheneider. 1993. "Parents choice and inequality." Pp. 147-82 in *Parents, their children and schools*, edited by B. Scheneider and J S. Coleman. Boulder: Colorado: Westview Press.

Coleman, James Samuel, Thomas Hoffer, Sally Kilgore, National Opinion Research Center., and National Center for Education Statistics. 1982. *Public and private schools*. Washington, D.C.: National Center for Education Statistics.

Consultative Commission for the Human Rights. 1993. *La Lutte contre le Racisme et la Xénophobie*. Paris: La Découverte.

Constant, Amelie, and Douglas Massey. 2002. "Self-selection, earnings and out-migration: a longitudinal study of immigrants to Germany." *IZA Discussion Paper* 672.

Cornell, Stephen. 1996. "The variable ties that bind: content and circumstances in ethnic processes." *Ethnic and Racial Studies* 19: 265-289.

Courgeau, Daniel. 1973. " Les enfants nés a l'étranger. Enquête nationale sur le niveau intellectuel des enfants d'age scolaire." *Travaux et Documents INED-INETOP* 64.

Crane, John. 1991. "The Epidemic Theory of Ghettos and Neighbourhood Effects on Dropping Out and Children Childbearing." *American Journal of Sociology* 96: 1226-1259.

Crosnoe, Robert. 2001. "Academic orientation and parental involvement in education during high school." *Sociology of Education* 74: 210-230.

Currie, Janet. 2001. "Early Childhood Education Programs." *Journal of Economic Perspectives* 15: 213-238.

Cheng, Yuan, and Anthony Heath. 1993. "Ethnic Origins and Class Destinations." *Oxford review of Education* 19: 151-165.

Child, Irwin. 1943. *Italian or American? The second generation in conflict.* New Haven: Yale University Press.

Chiswick, Barry. 1977. "Sons of Immigrants: Are They at Earnings Disadvantage?" *American Economic Review* 67: 376-380.

—. 1978. "The Effect of Americanization in the Earnings of Foreign Born Men." *Journal of Political Economy* 86: 897-921.

—. 1985. "The Labour Market Status of American Jews: Patterns and Discriminants." *American Jews Yearbook*, 131-153.

—. 1986a. "Is the New Immigration Less Skilled than the Old?" *Journal of Labour Economics* 4: 168-192.

—. 1986b. "Labour Supply and Investment in Child Quality: a study of Jewish and non-Jewish women." *The Review of Economic and Statistics* 68: 700-7003.

—. 1988. "Differences in Education and Earnings Across Racial and Ethnic Groups: Tastes, Discrimination and Investments in Child Quality." *The Quarterly Journal of Economics* 103: 571-597.

—. 1994. "Human Capital and the Labour Market Adjustment of Immigrants: Testing Alternative Hypothesis." *Migration and Development Programme* 7.

—. 1998. "Are immigrants favourably self-selected?" *American Economic Review*, 89: 181-185.

Chiswick, Barry, and Noyna DebBurman. 2004. "Educational attainment: analysis by immigrant generation." *Economics of Education Review* 23: 361-379.

Chiswick, Barry, Yew Linag Lee, and Paul W. Miller. 2003. "Patterns of Immigrant Occupational Attainment in a Longitudinal Survey." *International Migration* 41: 47-69.

D'Souza, Dinesh. 1995. *The end of racism: principles for a multiracial society.* New York: Free Press.

Daun, Holger. 2004. "Privatisation, Decentralisation and Governance." *International Review of Education* 50: 325-346.

Davey, Anthony. 1987. "Interethnic friendship patterns in British schools over three decades." *New Community* 14: 202-209.

Davis, James A. 1985. "The Logic of Causal Order." Pp. 07-055 in *Quantitative Applications in the Social Sciences*. Newbury Park, CA: Sage Publications.

Davis, Kingsley, and Wilbert Moore. 1945. "Some Principles of Social Stratification." *American Sociological Review* 10: 242-249.

De Graaf, Paul. 1986. "The Impact of Financial and Cultural Resources on Educational Attainment in the Netherlands." *Sociology of Education* 59: 237-246.

—. 2000. "Parental Cultural Capital and Educational Attainment in the Netherlands: a Refinement of the Cultural Capital Perspective." *Sociology of Education* 73: 92-111.

De Graaf, Paul, and Harry B.G. Ganzeboom. 1993. "Family Background and Educational Attainment in the Netherlands of Birth Cohorts 1981-1960." in *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*, edited by Y. and Blossfeld Shavit, H.P. Boulder Colorado: Westview Press.

Demack, Sean, David Drew, and Mike Grimsley. 2000. "Minding the gap: ethnic, gender and social class differences in attainment at 16 (1988-95)." *Race, Ethnicity & Education* 3: 117-143.

Dewitte, Philippe. 2003. "Un siècle de presence africaine en France". *Historiens et géographes*, 383: 347-356.

Di Maggio, Paul. 1982. "Cultural Capital and School Success." *American Sociological Review* 47: 189-201.

Dietz, Robert D. 2002. "The estimation of neighbourhood effects in the social sciences: an interdisciplinary approach." *Social Science Research* 31: 539-575.

Draschsler, Julius. 1920. *Democracy and Assimilation: The Blending of Immigrant Heritages in America.* New York: MacMillan.

Drew, David. 1995. *Race, Education and Work: the Statistics of Inequality.* Ipswich: Ipswich Book Co.

Driessen, Geert., L. Mulder, and P. Jungbluth. 1999. "Structural and Cultural Determinants of Educational Opportunities in the Netherlands." Pp. 83-104 in *Roots and Routes: Ethnicity and Migration in Global Perspective*, edited by S. Weil. Jerusalem: Magnes Press.

Driessen, J. M., and W. Geert. 2000. "Ethnicity, Forms of Capital and Educational Achievement." *International Review of Education* 47: 513-538.

Dronkers, Jaap. 1983. "Have Inequalities in Educational Opportunities Changed in the Netherlands? A Review of Empirical Evidence." *Netherlands Journal of Sociology* 19: 133-150.

Dronkers, Jaap, and Peter Robert. 2003. "The Effectiveness of Public and Private Schools from a Comparative Perspective." *EUI Working Papers* 2003.

Dubet, François and Duru-Bellat, Marie. 2002. *L'hypocrisie scolaire. Pour un collège enfin démocratique*. Paris: Éditions du Séuil.

Duleep, Harriet, and Mark Regets. 1992. "The Elusive Concept of Immigrant Quality." *Urban Institute Working Papers*.

—. 1994. "The Elusive Concept of Immigrant Quality." *Program for Research on Immigration Policy, Discussion Paper PRIP-UI (The Urban Institute)* 28.

—. 1997a. "Measuring Immigrant Wage Growth Using Matched CPS Files." *Demography* 34: 239-249.

—. 1997d. "Immigrant Entry Earnings and Human Capital Growth: Evidence from the 1960 -1980 censuses." *Research in Labour Economics* 16: 297-317.

—. 1997c. "Are Lower Immigrant Earnings at Entry Associated with Faster Growth? A Review." *Program for Research on Immigration Policy, Discussion Paper PRIP-UI-44. The Urban Institute*.

Duleep, Harriet, and Phanindra. Wunnava (Eds.). 1996. *Immigrants and Immigration Policy: Individual Skills, Family Ties, and Group Identities*. London: Jai Press Inc.

Duncan, Greg J., James Connell, and Pamela K. Klebanov. 1997. "Conceptual and Methodological Issues in Estimating Causal Effects of Neighbourhood and Family Conditions on Individual Development." Pp. 219-250 in *Neighbourhood Poverty; Context and Consequences for Children*, edited by J. Brooks-Gunn and JL Aber. New York: Russell Sage Foundation.

Durlauf, Steven N., and Young H. Peyton. 2001. *Social dynamics*. Cambridge: Mass, MIT Press.

Duru-Bellat, Marie. 2001. «Effets maîtres, éffets établissements: quelle responsabilité pour l'école?» *Revue Suisse des Sciences de l'Éducation* 23: 321-327.

—. 2002. *Les inégalités sociales à l'école. Genèse et mythes*. Paris: PUF.

Duru-Bellat, Marie and Annette Jarlégan. 2001. «Garçons et filles à l'école primaire et dans le secondaire» In Thierry Blöss (Ed.) *La dialectique des rapports hommes-femmes*. Paris: Presses universitaires de France. Pp. 81-84.

Duru-Bellat, Marie, and Annick Kieffer. 2000. "La démocratisation de l'enseignement en France: polémiques autour d'une question d'actualité." *Population* 55: 51-80.

Duru-Bellat, Marie, and Alain Mingat. 1985. "De l'orientation en fin de 5$^{\text{ème}}$ au fonctionnement du collège. 1- Evaluation de la procédure." *Cahiers de l'IREDU* 42.

—. 1988. "De l'orientation en fin 5$^{\text{,ème}}$ au fonctionnement du collège. 2-Pregression, notation, orientation: l'impact du contexte de scolarisation." *Cahiers de l'IREDU* 45.

__. 1989. "How do French junior secondary schools operate? Academic achievement, grading and streaming of students." *European Sociological Review* 5: 47-64.

—. 1990. "How do French junior secondary schools operate? Academic achievement, grading and streaming of students." in

The Comprehensive School: Experiement Revisited. Evidence from Western Europe, edited by A. Leschinsky and K.U. Mayer. Frankfurt: Peter Lang.

—. 1997. "Les effets pervers des classes de niveau dans les collèges." *Revue Française de Sociologie* 38: 759-790.

Duru-Bellat, Marie, and Agnes Van Zanten. 1999. *Sociologie de l'École*. Paris: Armand Colin.

Duru-Bellat, Marie, Magali Danner, Séverine Le Bastard-Landrier and Céline Piquée. 2004. Les Effets de la composition scolaire et sociale du public d'élèves sur leur réussite et leurs attitudes : évaluation externe et explorations qualitatives. *Les Caihiers de l'IREDU*, 65.

Eggleston, John. 1974. *Contemporary research in the sociology of education*. London: Methuen Harper & Row.

Entwisle, Doris, Karl Alexander, and Linda Olson. 1994. "The Gender Gap in Mathematics: its possible origins in neighbourhood effects." *American Sociological Review* 59: 822-838.

Erikson, Robert, and John H. Goldthorpe. 1992. *The constant flux: a study of class mobility in industrial societies*. Oxford: Clarendon Press Oxford University Press.

Erikson, Robert, John H. Goldthorpe, Michelle Jackson, Meir Yaish, and David R. Cox. 2005. "On class differentials in educational attainment." *PNAS* 102: 9730-9733.

Erikson, Robert, John H. Goldthorpe and Lucienne Portecarrero. 1979. "Intergenerational Class Mobility in Three Western European Societies: England, France and Sweden" *The British Journal of Sociology* 30: 415-441.

Erikson, Robert, and Jan O. Jonsson. 1996. *Can education be equalized? the Swedish case in comparative perspective*. Boulder, Colo.: Westview Press.

Ernst, Bernard, and Kristel Radica. 1994. "Les élèves au cycle d'observation: caractéristiques, performances en français et en mathématiques, orientation en fin de cycle." *Les dossiers d'Éducation et Formations* 40.

Esping-Anderser, Gosta and Josep Mestres. 2001. "The impact of preschool education in European countries". Unpublished document.

Evans, William N., Wallace E. Oates, and Robert. M. Schwab. 1992. "Measuring Peer Group Effects." *Journal of Political Economy* 100: 966-991.

Favell, Adrian. 1998. *Philosophies of Integration: Immigration and the Idea of Citizenship in France and Britain*. London: Macmillan.

Featherman, David L., and Robert Hauser. 1976. "Changes in the Socioeconomic Stratification of the Races, 1962-1973." *American Journal of Sociology* 82: 621-651.

—. 1978. *Opportunity and change*. New York: Academic Press.

Feinstein, Leon, and James Symons. 1999. "Attainment in secondary school." *Oxford Economic Papers* 51: 300-321.

Fekjaer, Noack Silje, and Gunn Elisabeth Birkelund. 2007. "Does the ethnic composition of upper secondary schools influence educational achievement and attainment? A multilevel analysis of the Norwegian case". *European Sociological review*. Forthcoming.

Felouzis, George. 2003. "La ségrégation ethnique au collège et ses conséquences." *Revue Française de Sociologie* 44: 413-447.

Felouzis, George, Françoise Liot, and Joëlle Perroton. 2002. "La ségrégation ethnique au collège." in *Ecole, Ville, Ségrégation. La Polarisation Sociale Et Ethnique Des Collèges A L'académie De Bordeaux*. Bordeaux: CADIS-LAPSAC Université De Bordeaux 2.

—. 2005. *L'apartheid scolaire: Enquête sur la ségrégation ethnique dans les collèges*. Paris: Séuil.

Fisher, Claude S., Michael Hout, M. Samuel Jankowski, Samuel R. Lucas, Ann Swidler Swidler, and Kim Voss. 1996. *Inequality by Design: Cracking the Bell Curve*. New Jersey: Princeton University Press.

Fordham, Signithia, and John V. Ogbu. 1986. "Black students' school success: coping with the burden of Black acting." *The Urban Review* 18: 176-206.

Foster, Michael, and Sarah McLanahan. 1996. "An Illustration of the Use of Instrumental Variables: Do Neighbourhood Conditions Affect a Young Person's Chance of Finishing High School?" *Psychological Methods* 1: 249-260.

Friedberg, Rachel M. 2000. "You Can't Take it with You? Immigrant Assimilation and the Portability of Human Capital." *Journal of Labor Economics* 18: 221-251.

Funkhouser, Edward, and Stephen Trejo. 1995. "The Labor Market Skills of Recent Male Immigrant: Evidence from the Current Population Surveys." *Industrial and Labor Relations Review* 48: 792-811.

Fyfe, Alec, and Peter Figueroa (Eds.). 1993. *Education for cultural diversity: a challenge for a new era*. London: Routledge.

Gambetta, Diego. 1987. *Were They Pushed or Did They Jump?* New York: Cambridge University Press.

Garnier, Maurice A., and Lawrence E. Raffalovitch. 1994. "The Evolution of equality of Educational Opportunity in France." *Sociology of Education* 57: 1-11.

Geert, W., and M. Driessen. 2001. "Ethnicity, forms of Capital, and Educational Achievement." *International Review of Education.* 47: 513-538.

Gibson, Margaret A, and John U. Ogbu. 1991. *Minority Status and Schooling: A Comparative Study of Immigrant and Involuntary Minorities*. New York: Garland.

Ginther, Donna, Robert Haveman, and Barbara Wolfe. 2000. "Neighborhood Attributes as Determinants of Children Outcomes." *Journal of Human Resources* 35: 603-42.

Girard, Alain. 1971. "Attitude des Français à l'égard de l'immigration étrangère: enquête d'opinion." *Population* 26: 827-875.

Glazer, Nathan. 1955 "Social Characteristics of the American Jews." 56: 3-41.

Glazer, Nathan, and Daniel P. Moynihan. 1963. *Beyond the melting pot; the Negroes, Puerto Ricans, Jews, Italians, and Irish of New York City*. Cambridge, Mass.: M.I.T. Press.

Goldthorpe, John H. 1980. *Social Mobility and Class Structure in Modern Britain*. Oxford: Clarendon Press.

—. 2000. *On sociology: numbers, narratives, and the integration of research and theory*. Oxford UK; New York: Oxford University Press.

González Ferrer, Amparo. 2006. "Who do immigrants marry? Partner choice among single immigrants in Germany." *European Sociological Review* 22: 171-185.

Gould, Stephen Jay. 1981. *The Mismeasure of Man*. New York: Norton & Company.

Granovetter, Mark S. 1983. "The Strength of Weak Ties." *Sociological Theory 1: 201-233*.

—. 1995. "Economic Action and Social Structure." *American Journal of Sociology* 91: 481-510.

Gray, John. 1990. "Has comprehensive education succeeded? Changes within schools and their effects in Great Britain." in *The Comprehensive School: Experiment Revisited. Evidence from Western Europe*, edited by A. Leschinsky and K.U. Mayer. Frankfurt: Peter Lang.

Grenier, Gilles. 1984. "The Effects of Language Characteristics on the Wages of Hispanic American Males." *Journal of Human Resources* 19: 35-52.

Halsey, Albert H. 1961. *Education, economy, and society; a reader in the sociology of education*. New York: Free Press of Glencoe.

—. 1977. "Towards Meritocracy? The Case of Britain." in *Power and Ideology in Education*, edited by J. Karabel and Halsey H.A. New York: Oxford University Press.

Halsey, Albert H., Anthony F. Heath, and John M. Ridge. 1980. *Origins and destinations: family, class, and education in modern Britain*. Oxford: Oxford University Press.

Hallgarten, Joe. 2000. *Parents Exist, Ok! Issues and visions for parent-school relationships*. London: Biddles Ltd.

Hamilton, David L. 1981. *Cognitive processes in stereotyping and intergroup behavior*. Hillsdale, N.J.: L. Erlbaum Associates.

Hannan, Michael. 1994. "Dynamics of Ethnic Boundaries." Pp. 500-509 in *Social Stratification: Class, Race and Gender*, edited by D. B. Grusky. Oxford: Westview Press.

Harrison, Lawrence E. 1992. *Who prospers? how cultural values shape economic and political success*. New York, NY: Basic Books.

Harrison, Lawrence E. and Samuel P. Huntington (eds.). 2000. *Culture Matters: How values shape human progress*. New York: Basic Books.

Hauser, Robert. 1993. "The Decline in College Entry among African-Americans: Findings in Search of Explanations." Pp. 271-309 in *Prejudice, politics, and the American dilemma*, edited by Paul M. Sniderman, Philip Tetlock, and Edward G. Carmines. Stanford, Calif.: Stanford University Press.

Haveman, Robert, and Barbara Wolfe. 1995. "The determinants of children's attainments: a review of methods and findings." *Journal of Economic Literature* 33: 1829-1878.

HCI (Haute Conseil à l'Intégration). 1993. *L'Intégration a la Française*. Paris: Union Générale d'Editions.

—. Le contrat et l'intégration. 2004. Paris: La Documentation Francaise.

Heath, Anthony and Sin Yi Cheung (eds.). 2007. *Unequal Chances: Ethnic Minorities in Western Labour Market*. Oxford: Oxford University Press.

Heath, Anthony and Yaël Brinbaum (eds.). 2007. "The New Second Generation". *Ethnicities*, 7: (special issue).

Heath, Anthony, and Dorren MacMahon. 1998. "Education and Occupational Attainments: The Impact of Ethnic Origin." Pp. 646-662 in *Education: Culture, Economy and Society*, edited by A. H. Halsey, H. Lauder, Ph. Brown, and S. Wells. Oxford: Oxford University Press.

Heath, Anthony F., Collin Mills, and John Roberts. 1992. "Towards Meritocracy? Recent Evidence on an Old Problem." Pp. xviii, 401 in *Social research and social reform: essays in honour of A.H. Halsey*, edited by A. H. Halsey, Colin Crouch, and A. F. Heath. Oxford: Oxford University Press.

Heath, Anthony. 1990. "Educational reform and changes in the stratification process in Great Britain." in *The Comprehensive School: Experiment Revisited. Evidence from Western Europe*, edited by A. Leschinsky and K.U. Mayer. Frankfurt: Peter Lang.

Heckman, James. 1979. "Sample Selection bias as a specification error." *Econometrica* 47: 153-161.

Hechter, Michael. 1975. *Internal colonialism: the Celtic fringe in British national development, 1536-1966*. London: Routledge and Kegan Paul.

—. 1986. "Rational Choice Theory and Study of Race an Ethnic Relations." Pp. 247-264 in *Theories of Race and Ethnic Relations*, edited by J. Rex and D. Mason. Cambridge: Cambridge University Press.

Hedstrom, Peter, and Richard Swedberg (Eds.). 1998. *Social Mechanisms. An Analytical Approach to Social Theory*. Cambridge: Cambridge University Press.

Héran, Francois. 1996. "École publique école privée: qui peut choisir?" *Economie et statistique* 293.

Herrstein, Richard J., and Charles Murray. 1994. *The Bell Curve: Intelligence and Class Structure in American Life*. New York: The Free Press.

Hout, Michael. 1986. "Opportunity and the Minority Middle Class A Comparison of Blacks in the United States and Catholics in Northern Ireland." *American Sociological Review* 51, 214-23.

Hyman, Herbert H. 1953. "The Value Systems of Different Classes." Pp. 488-499 in *Class, status, and power; a reader in social stratification*, edited by Reinhardt Bendix and Seymour Martin Lipset. Glencoe, Ill.: Free Press.

Jasso, Guillermina, and Mark Rossenzweig. 1986. "What's in a Name? Country on Origin Influences on the Earnings of Immigrants in the United States." Pp. 75-106 in *Research on Human Capital and Development*, edited by O. Stark. Greenwich: JAI Press.

Jaynes, Gerald David, and Robin Murphy Williams. 1989. *A Common destiny: Blacks and American society*. Washington, D.C.: National Academy Press.

Jelen, Christian. 1993. *La Famille, secret de l'intégration. Enquête sur la France immigrée*. Paris: Robert Laffont Editions.

Jencks, Christopher, and Susan Mayer. 1990. "Growing Up in Poor Neighborhoods: How Much Does it Matter?" *Science* 243: 1441-45.

Jencks, Christopher, and Paul E. Peterson. 1991. *The Urban underclass*. Washington, D.C.: Brookings Institution.

Jencks, Christopher, and Meredith Philips. 1998. *The Black-White Test Store Gap*. Washington DC: Brookings Institution.

Jencks, Christopher, Marshall Smith, Henry Ackland, Mary Jo Bane, David Cohen, Herbert Gintis, Barbara Heynes, and Setphen Michelson. 1972. *Inequality*. New York: Basic Books.

Jenkins, Richard. 1989. "Language, Symbolic Power and Communication: Bourdieu's "Homo Academicus"." *Sociology*. 23: 639-645.

Jones, James D., Beth E. Vanfossen, and Margaret E. Ensminger. 1995. "Individual and Organizational Predictors of High School Track Placement." *Sociology of Education* 68: 287-300.

Jonsson, Jan O. 1992. *Towards the Merit-Selective Society?* Stockholm: Swedish Institute for Social Research.

—. 1993. "Persisting Inequalities in Sweden?" in *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*, edited by Y. and Blossfeld Shavit, H.P. Boulder Colorado: Westview Press.

Kalmijn, Mathijs, and Gerbert Kraaykamp. 1996. "Race, Cultural Capital, and Schooling: An Analysis of Trends in the United States." *Sociology of Education* 69: 22-34.

Kallen, Horace M. 1924. *Culture and Democracy in the United States: Studies in the Group Psychology of the American Peoples*. New York: Boni and Liveright.

—. 1924. *"Democracy versus the Melting Pot". Culture and Democracy in the United States*. New York: Boni and Liveright.

Kane, Thomas. 1994. "College Entry by Blacks Since 1980: The Role of College Costs, Family Background and Returns to Education." *Journal of Political Economy* 102: 878-911.

Kao, Grace, and Jenniffer S. Thompson. 2003. "Racial and ethnic stratification in educational achievement and attainment." *Annual Review of Sociology* 29: 417-442.

Kao, Grace, and Marta Tienda. 1995. "Optimism and Achievement: the educational performance of immigrant youth." *Social Science Quarterly* 76: 1-19.

Katz, Michael B. 1993. *The "Underclass" debate: views from history*. Princeton, N.J.: Princeton University Press.

Keller, Suzanne, and Marisa Zavalloni. 1964. "Ambition and Social Class: A Respecification." *Social Forces* 43.

Keller, Suzanne, and Marisa Zavalloni. 1962. "Classe Sociale, Ambition et Réussite." *Sociologie du Travail* 4.

Kepel, Gilles. 1984. *Le Prophète et le Pharaon*. Paris: La Découverte.

Kerbow, D., and Charles W. Mueller. 1993. "Parent Involvement in the Home School and the Community." Pp. 13-42 in *Parents, their Children and Schools*, edited by B. Scheneider and J S. Coleman. Boulder, Colorado: West View Press.

Kerr, Clark. 1960. *Industrialism and industrial man; the problems of labor and management in economic growth*. Cambridge: Harvard University Press.

Khelil, Mohand. 1991. *L'Intégration des Maghrébins en France*. Paris: Presses Universitaires de France.

Kim, Jae-On, and Charles W. Mueller. 1978a. *Introduction to factor analysis*. London: Sage Publications.

—. 1978b. *Factor Analysis: Statistical Methods and Practical Issues*. London: Sage Publications.

Kristen, Cornelia. 2000. "Ethnic Differences in Educational Placement: the transition from Primary to Secondary schooling." in *Manheimmer Zentrum fur Europaische Sozialforschung*. Mannheim.

La Londe, Robert, and Robert Topel. 1992. "The Assimilation of Immigrants in the US Labour Market." in *Immigrant in the Work Force: Economic Consequences for the United States and Source Areas*, edited by G. Borjas and R. B Freeman. Chicago: United of Chicago Press.

Lareau, Anne. 1987. "Social class differences in family school relation: the importance of cultural capital." *Sociology of Education* 60: 73-85.

—. 1989. *Home advantage: social class and parental intervention in elementary education*. Barcombe: The Falmer Press.

Le Bras, Hervé. 1998. *Le Démon des Origines: démographie et extrême droite*. Paris: L'Aube.

Lee Sung, Betty. 1967. *The Story of the Chinese in America*. New York: Collier Book.

Leridon, Henri. 1999. "The Ethnic Variable as a Statistical Category." *Population (an English Selection)* 11: 189-192.

Leschinsky, Achim, and Karl Ulrich Mayer. 1990. "Comprehensive schools and inequality of opportunity in the RFA." in *The Comprehensive School: Experiement Revisated. Evidence from Western Europe*, edited by A. Leschinsky and K.U. Mayer. Frankfurt: Peter Lang.

Lewis, Oscar. 1972. "La Cultura de la Pobreza." in *Pobreza, Burguesía y Revolución*, edited by O. Lewis, K.S. Farol, and C. Fuentes. Barcelona: Anagrama.

Light, Ivan. 1980. "Asian Enterprise in America: Chinese, Japanese and Korean in Small Business." Pp. 33-57 in *Self-help in urban America: patterns of minority business*

enterprise, edited by Scott Cummings. Port Washington, N.Y.: Kennikat Press.

Light, Ivan, and Steven J Gold. 2002. *Ethnic Economies*. London: Academic Press.

Limage, Leslie J. 2000. "Education and Muslim Identity in France." *Comparative Education* 36: 73-94.

Lin, Nan. 1990. "Social Resources and Social Mobility: A Structural Theory of Status Attainment." Pp. 247-271 in *Social Mobility and Social Structure*, edited by Ronald L. Breiger. New York: Cambridge University Press.

Lin, Nan, and John Vaugh. 1981. "Social Resources and the Strength of Ties: Structural Factors in Occupational Attainment Status." *American Sociological Review* 46: 393-405.

Lipset, Seymour Martin, and Reinhardt Bendix. 1959. *Social mobility in industrial society*. Berkeley: University of California Press.

Long, J. Scott, and Jeremy Freese. 2001. *Regression Models for Categorical Dependent Variables Using Stata*. Texas: College Station, Stata Press.

Loury, Glenn. 1977. "A Dynamic Theory of Racial Income Differences." Pp. 153-186 in *Women, minorities, and employment discrimination*, edited by Phyllis Ann Wallace, Annette M. LaMond, and Massachusetts Institute of Technology. Industrial Relations Section. Lexington, Mass.: Lexington Books.

Lucas, Samuel R. 2001. "Effectively Maintained Inequality." *American Journal of Sociology* 106: 1642-90.

Ludwig, J., G. J. Duncan, and R. Hirschfield. 2001. "Urban Poverty and Juvenile Crime." *Quarterly Journal of Economics* 116: 655-679.

MacLeod, Jay. 1995. *Ain't no makin' it: aspirations and attainment in a low-income neighborhood*. Boulder: Westview Press.

MacMahan, I.D. 1992. "Public preschool from the age of two: The école Maternelle in France." *Young Children* 47: 22-28.

MacManus, Walter, and William Welch. 1983. "Earnings of Hispanic Men: The Role of English Language Proficiency." *Journal of Labour Economics* 1: 101-130.

Manski, Charles F. 1995. *Identification Problems in the Social Sciences*. Cambridge, Mass.: Harvard University Press.

—. 2000. " Economic Analysis of Social Interactions." *The Journal of Economic Perspectives* 14: 115-136.

Mare, Robert. 1980. "Social Background and School Continuation Decisions." *Journal of the American Statistical Association* 75: 295-305.

—. 1981. "Change and Stability in Educational Stratification." *American Sociological Review* 46: 72-87.

Mark, Gary N. 2005. "Accounting for immigrant non-immigrant differences in reading and mathematics in twenty countries." *Ethnic and racial studies* 28: 925-946.

Marshall, Gordon, Adam Swift, and Stephen Roberts. 1997. *Against the odds? social class and social justice in industrial societies*. Oxford: Oxford University Press.

Marshall, Howard. 1971. *Luke: Historian and Theologian*. Michigan: Zondervan.

Masson, Philippe. 1997. "Elèves, parents d'élèves et agents scolaires dans le processus d'orientation." *Revue Française de Sociologie* 38: 119-142.

Mateo, Alaluf. 1992. *The unemployment trap: Long - term unemployment and low educational attainment in six countries*. Strasbourg: Council of Europe.

McClelland, David C. 1961. *The achieving society*. Princeton, N.J.: Van Nostrand.

Meurs, Dominique; Ariane Pailhé and Patrick Simon. 2006. «Persistance des inégalités entre générations liées á l'immigration: láccess à l'emploi des immigrés et de leurs descendants en France» *Population* 61: 763-802.

Merle, P. 2002. Démocratisation ou accroissement des inégalités scolaires? L'exemple de l'évolution de la durée des études en France (1988-1998), *Population*, 57: 633-660.

Merton, Robert. 1995. " Foreword." in *The Economic Sociology of Immigration. Essays on Networks, Ethnicity and Entrepreneurship*, edited by Russell Sage Foundation. New York: Portes, Alejandro.

Mingat, Alain. 1984. "Les acquisitions scolaires de l'élève au CP. Les origines des différences." *Revue française de pédagogie* 69: 49-63.

—. 1991. "Expliquer la variété des acquisitions au cours préparatoire: les rôles de l'enfant, la famille et l'école." *Revue Française de Pédagogie* 95: 47-63.

Mingat, Alain, and M Richard. 1991. *Evaluation des activités de re-education GAPP à l'école élémentaire*. Dijon: Cahiers de l'IREDU.

Mondon, Pierre. 1984. "Quelques aspects de la scolarisation des enfants étrangers à partir des statistiques." *Migrants-Formation* 58: 6-14.

Moodod, Tariq. 1993. "The number of ethnic minority students in British higher education: some grounds for optimism." *Oxford review of Education.* 19: 167-182.

Moodod, Tariq, Richard Berthoud, Jane Lakey, James Nazroo, Patten Smith, Satnam Virdee, and Beishon. Sharon. 1997. *Ethnic Minorities in Britain: Diversity and Disadvantage.* Chairperson: Policy Studies Institute.

Morgan, Stephen. 1998. "Adolescent Educational Expectations." *Rationality and Society* 10: 131-62.

Muller, Chandra. 1998. "Gender differences in parental involvement and adolescent mathematics achievements." *Sociology of Education* 71: 336-3356.

Muller, Chandra, and David Kerbow. 1993. "Parent Involvement in the Home School and the Community." Pp. 13-42 in *Parents, Their Children, and Schools*, edited by B. Scheneider and J S. Coleman. Boulder, Colorado: West View Press.

Murphy, James. 1981. "Class Inequality in Education." *The British Journal of Sociology* 32: 182-201.

—. 1990. "A Most Respectable Prejudice: Inequality in Educational Research Policy." *British Journal of Sociology* 41: 29-54.

Nash, Roy. 1990. "Bourdieu on Education and Social and Cultural Reproduction." *British Journal of Sociology of Education* 11: 431-447.

Need, Ariana, and Uulkje De Jong. 2001. "Educational Differentials in the Netherlands: Testing Rational Action Theory." *Rationality and Society* 13: 71-98.

Noiriel, Gérard. 1988. *Le Creuset Français: Histoire de l'Immigration XIX-XX siècles*. Paris: Séuil.

Novak, Michael. 1972. *The rise of the unmeltable ethnics; politics and culture in the seventies*. New York: Macmillan.

OECD. 2006. *Where immigrant students succeed: a comparative review of performance and engagement in PISA*. Paris: OECD.

Ogbu, John U. 1991. "Immigrant and involuntary minorities in comparative perspective." Pp. 3-33 in *Minority Status and Schooling*, edited by M.A. Gibson and J.U. Ogbu. New York: Garland.

Ogbu, John V. 1998. "Racial Stratification and Education in the United States: Why Inequality Persists." Pp. 765-778 in *Education: Culture, Economy and Society*, edited by A. H. Halsey, H. Lauder, Ph. Brown, and A. Stuart Wells. Oxford: Oxford University Press.

Oswald, Hans, David P. Baker, and David L. Stevenson. 1988. "School Charter and Parental Management in West Germany." *Sociology of Education* 61: 255-265.

Parekh, Bhikkhu. 1986. "The concept of Multicultural Education." Pp. 19-32 in *Multicultural Education: the Interminable Debate*, edited by S. Modgil, G.K. Verma, K. Mallick, and C Modgil. Lewes: Falmer Press.

Parekh, Bhikkhu. 1983. "Educational opportunity in multi-ethnic Britain." in *Etnic Pluralism and Public Policy, Heinemann*

Educational Books, edited by N. Glazer and K Young. London.

Park, Robert E. 1914. "Racial Assimilation in Secondary Groups with Particular Reference to the Negro." *American Journal of Sociology* 19: 606-623.

Parsons, Talcott. 1960. *Structure and process in modern societies*. Glencoe, Ill.: Free Press.

Perier Pierre. 1998. *Enseigner dans les collèges en ZEP : le point de vue des principaux et des enseignants début 1998*. Paris, Ministère de l'Éducation nationale.

Pearlin, Leonard I. 1971. *Class context and family relations; a cross-national study*. Boston: Little Brown.

Perroton, Joëlle. 2000. "Les dimensions ethniques de l'expérience scolaire." *L'Année Sociologique* 50: 437-468.

Petek-Salom, Gaye. 1998. «Les ressortissants turcs en France et l'évolution de leur projet migratoire» *Hommes et* Migrations, 1212: 14-20.

Peterson, William. 1971. *Japanese Americans*. New York: Random House.

Plewis, Ian. 1985. *Analysing change. Measurement and explanation using longitudinal data*. Bath: John Wiley & Sons Ltd.

—. 1988. "Assessing and understanding the educational progress of children from different ethnic groups." *Journal of the Royal Statistical Society* 151: 316-326.

—. 1997. *Statistics in Education*. London: John Wiley & Sons Inc.

Portes, A., and Lingxin Hao. 2005. " The schooling of children of immigrants: contextual effects on the educational attainment of the second generation." *Migraciones* 17: 7-42.

Portes, Alejandro. 1995. *The economic sociology of immigration: essays on networks, ethnicity, and entrepreneurship*. New York: Russell Sage Foundation.

—. 1996. *The new second generation*. New York: Russell Sage Foundation.

—. 1998. "Social capital: its origins and applications in modern sociology." *Annual Review of Sociology* 24: 1-24.

Portes, Alejandro, and Rubén G. Rumbaut. 1990. *Immigrant America: a portrait*. Berkeley: University of California Press.

—. 1996. *Immigrant America: a portrait*. Berkeley: University of California Press.

—. 2001a. "The Forging of a New America: Lessons for Theory and Policy." *The Center for Migration and Development Working Paper Series (Princeton University)* 1.

—. 2001b. *Legacies: the story of the immigrant second generation*. Berkeley: University of California Press.

Portes, Alejandro, and Julia Sensenbrenner. 1993. "Emdeddedness and Immigration: Notes on Social Determinants of Economic Action." *American Journal of Sociology* 98: 1320-50.

Portes, Alejandro, and Min Zhou. 1993. "The New Second Generation: Segmented Assimilation and Its Variants." *ANNALS, AAPSS* 530: 75-96.

Portes, Alejandro, and Dug MacLeod. 1996. "Educational Progress of Children of Immigrants: The Roles of Class, Ethnicity, and School Context." *Sociology of Education* 64: 255-75.

Portes, Alejandro, Robert Merton, Saskia Sassen, Mark S. Granovetter, Ivan Light, and Patricia Fernández Kelly. 1995. *The Economic Sociology of Immigration [Essays on Networks, Ethnicity, and Entrepreneurship]*. New York: Russell Sage Foundation.

Prost, Antoine. 1990. "Schooling and social stratification? paradoxes of the reform in the middle school in the 20th France." in *The Comprehensive School: Experiement Revisited. Evidence from Western Europe*, edited by A. Leschinsky and K.U. Mayer. Frankfurt: Peter Lang.

—. 1992. *Éducation, Société et Politiques: une histoire de l'enseignement en France de 1945 à nos jours*. Paris: Seuil.

Przeworski, Adam. 1977. "Proletariat into class. The process of class formation from Karl Kautsky's The Class struggle to recent controversies." *Politics and Society* 7: 343-401.

Raftery, Adrien E., and Michael Hout. 1993. "Maximally Maintained Inequality." *Sociology of Education* 66: 41-62.

Ralph, B., and J.R. McNeal. 1999. "Parental Involvement as Social Capital: differential effectiveness on science achievement, truancy and dropping out." *Social Forces* 78: 117-144.

Rath, Jan, Rinus Pennix, *et al*. 2001. *Western Europe and Its Islam*. Leiden: Koninklije Brill NV.

Rex, John, and Douglas Manson (Eds.). 1984. *Theories of Race and Ethnic Relations*. Cambridge: Cambridge University Press.

Rex, John, Daniele Joly, Czarina Wilpert, and European Science Foundation. 1987. *Immigrant associations in Europe*. Aldershot, Hants, England; Brookfield, Vt.: Gower.

Rhamie, J., and S. Hallam. 2002. "An investigation into African-Caribbean academic success in the UK." *Race, Ethnicity and Education* 5: 151-170.

Richmond, Anthony H., Freda Richmond, and York University (Toronto Ont.). Ethnic Research Programme. 1984. *Immigrants in Canada and Australia*. Downsview, Ont.: Institute for Behavioural Research Social Science Research York University.

Riphahn, Regina T. 2001. "Cohort Effects in the Educational Attainment of Second Generation Immigrants in Germany: an analysis of census data." in *Institute for the Study of Labour (IZA), discussion papers*. Basel.

Roscigno, V., and J. Ainsworth-Darnell. 1999. "Race, Cultural Capital and Educational Resources: Persistent Inequalities and Achievement Returns." *Sociology of Education* 72: 158-178.

Rumbaut, Rubén G. 1977. " Ties that bind: immigration and immigrant families in the United States." Pp. 3-45 in *Immigration and the Family: Research and Policy in US Immigrants*, edited by A. Booth, Crouter A.C., and N. Landale. Mahwah, NJ: Erlbaum.

Sampson, R.J., J.D. Morenoff, and T. Gannon-Rowley. 2002. "Assessing 'Neighborhood Effects': Social Processes and New Directions in Research." *Annual Review of Sociology* 28: 443-78.

Saunders, Peter. 1996. *Unequal but Fair? A Study of Class Barriers in Britain*. London: IEA.

Schnepf, Sylke V. 2004. "How Different are immigrants? A cross-country and cross-survey analysis of educational achievement." *IZA Discussion Paper* 1398.

Schoeni, Robert, F McCarthy Kevin, and Georges Vernez. 1996. *The Mixed Economic Progress of Immigrants*. Santa Monica: The Rand Corporation.

SEIS. 1980. "Comparaison des cursus des élèves étrangers et des élèves français. Regroupement des trois échantillons de suivi d'élèves." *Documents de Travail (Ministère de l'Education National)* 223.

Serra, Nathalie, and Michelle Thaurel Richard. 1994. "Acquisitions des élèves au CE et pratiques pédagogiques." *Revue Française de Pédagogie* 104: 43-62.

Shavit, Yossi, and Hans-Peter Blossfeld. 1993. *Persistent inequality: changing educational attainment in thirteen countries*. Boulder, Colo.: Westview Press.

Short, Geoffrey, and Barry Carrington. 1987. "Towards and antiracist initiative in the all-white primary school." Pp. 220-235 in *Children and their Primary schools: A New Perspective*, edited by A Polland. Lewes: Falmer Press.

SIGES. 1984. "Les élèves étrangers dans le panel 1978 premier degré." *Documents de Travail (Ministère de l'Education National)* 309.

Silberman, Roxane, Richard Alba, and Irène Fournier. 2007. "Segmented Assimilation in France? Discrimination in the labour market against the second generation." *Ethnic and Racial Studies* 30: 1-27.

Simons, Julian. 1989. *The Economic Consequences of Immigration*. Cornwall: T.J. Press Ltd.

Snijders, Tom and Bosker, Roel. 1999. *Multilevel Analysis: an introduction to basic and advanced multilevel modeling.* London: Sage Publications.

Sklare, Marshall. 1971. *America's Jews.* New York: Random House.

Smith, D. J., and S. Tomlinson. 1989. *The School Effect: a study of multi-racial Comprehensives.* London: Policy Studies Institute.

South, Scott J., and Kyle D. Crowder. 1999. "Neighbourhoods Effects on Family Formation." *American Sociological Review* 64: 113-132.

Sowell, Thomas. 1981. *Ethnic America: a history.* New York: Basic Books.

—. 1996. *Migrations and cultures: a world view.* New York: BasicBooks.

Sowell, Thomas, and Lynn D. Collins. 1978. *Essays and data on American ethnic groups.* Washington: Urban Institute.

Spenner, Kenneth I., and David L. Featherman. 1978. "Achievement Ambitions." *Annual Review of Sociology* 4: 373-420.

Staiger, Douglas, and James Stock. 1997. "Instrumental Variables Regression with Weak Instruments." *Econometrica* 65: 557-586.

Statnat, Petra, and Gayle Christensen. 2006. *Where immigrant students succeed –A comparative review of performance and engagement in PISA 2003.* Paris: OECD.

Steinberg, Stephen. 1981. *The ethnic myth: race, ethnicity, and class in America.* New York: Atheneum.

—. 2000. "The Cultural Fallacy in Studies of Social Mobility." Pp. 61-71 in *Immigrants, Schooling and Social Mobility: Does Culture Make a Difference?* edited by H. Vermeulen and J. Perlmann. New York: MacMillan Press LTD.

Stryker, Robin. 1981. "Religio-Ethnic Effects on Attainments in the Early Career." *American Sociological Review* 46: 212-231.

Suárez-Orozco, Carlota, and Marcelo Suárez-Orozco. 1995. *Transformations: immigration, family life and achievement motivation among Latino adolescents*. Stanford: Stanford University Press.

Sui-Chu, Esther Ho, and J. Douglas Willms. 1996. "Effects of parental involvement on 8th grade achievement." *Sociology of Education* 69: 126-141.

Sullivan, Alice. 2001. "Cultural Capital and Educational Attainment." *Sociology of Education* 35: 893-912.

Sullivan, Alice, and Anthony Heath. 2002. "State and Private Schools in England and Wales." *Oxford University Department of Sociology Working Paper Series* 2.

Svalastoga, Kaare. 1965. "Social Mobility: The Western European Model." *Acta Sociologica* 9: 175-82.

Szulkin, Ryszard, and Jan O. Jonsson. 2006. "Ethnic segregation and educational outcomes in Swedish comprehensive schools: a multilevel analysis." *NEP: New Economics Papers Education.*

Tavan, Chloé. 2004. «École publique, école privée. Comparaison des trajectoires et de la réussite scolaires» *Revue Française de Sociologie* 45: 133-165.

Thelot, Claude, and Louis André Vallet. 1994. "Compétences en Français et Carrières Scolaires des Élèves Etrangers en France." *Actes du Séminaire sur les indicateurs d'intégration des immigrants (Gouvernement Du Québec et Université de Montreal)*: 179-206.

Tizard, Barbara, Peter Blatchford, Jessica Burke, Clare Farquhar, and Ian Plewis. 1988. *Young children in the inner city*. Exeter: A. Wheaton & Co. Ed.

Todd, Emmanuel. 1988. *La Nouvelle France*. Paris: Seuil.

__. 1994. *Le Destin des Immigrés: Assimilation et Segregation dans les Democraties Occidentales*. Paris: Seuil.

Tribalat, Michèle. 1995. *Faire France: Une enquête sur les immigres et leurs enfants*. Paris: La Découverte.

__. (2004). Une estimation des populations d'origine étrangère en France en 1999. *Population*, 59, 51-82.

Tribalat, Michèle, Jean Pierre Garson, *et al*. 1991. *Cent ans d'immigration, étrangers d;hier, Français d'aujourd'hui*. Paris: Institut National d'Etudes Démographiques.

Tribalat, Michèle, Patrick Simon, *et al*. 1996. *De l'Immigration a l'Assimilation: Enquête sur les Populations d'Origine Etrangère en France*. Paris: La Découverte.

Troyna, Barry. 1989. "A New Planet? Tackling Racial Inequality in all White Schools and Colleges." Pp. 175-192 in *Education for all: a landmark in pluralism*, edited by Gajendra K. Verma. London; New York: Falmer Press.

Troyna, Barry, and Bruce Carrington. 1990. *Education, racism, and reform*. London; New York: Routledge.

Vallet, Louis André. 1999. "Quarante années de mobilité sociale." *Revue Française de Sociologie* 50: 5-64.

—. 2004. "Change in Intergenerational Class Mobility in France from the 1970s to the 1990s and its Explanation: An Analysis Following the Casmin Approach" edited by Richard Breen (ed.) *Social Mobility in Europe*. Oxford: Oxford University Press.

—. 2005. "What can we do to improve the education of children from disadvantaged backgrounds?" in *Joint Working Group on Globalization and Education of the Pontifical Academy of Sciencies*.

Vallet, Louis, and Jean Pierre Caille. 1996. *Les Élèves Etrangers ou Issus de l'Immigration dans l'Ecole et le Collège Français*. Paris: Ministère de l'Education Nationale, de l'Enseignement Supérieur et de la Recherche.

__. 1999. "Migration and Integration in France. Academic Careers of Immigrants' Children in Lower and Upper Secondary School." in *Paper for the ESF Conference*. Obernai.

Van De Werfhorst, Herman G. and Van Tubergen, Frank (2007) "Ethnicity, schooling, and merit in the Netherlands" *Ethnicities* 7: 416-444.

Van Zanten, Agnès. 1997. "Schooling immigrants in France in the 1990s: success or failure of the republican model of

integration?" *Anthropology and Education Quarterly* 28: 351-374.

Veccoli, Rudolph. 1977. "The Italian Americans." Pp. 201-15 in *Uncertain Americans: readings in ethnic history*, edited by Leonard Dinnerstein and Frederic Cople Jaher. New York: Oxford University Press.

Vermeulen, Hans, and Joel Perlmann. 2000. *Immigrants, schooling, and social mobility: does culture make a difference?* New York: St. Martin's Press.

Waldvogel, Jane. 2002. "Childcare, Women Employment and Child Outcomes." *Journal of Population Economics* 15: 527-548.

Weber, Max. 1985. *The Protestant Ethic and the Spirit of Capitalism*. London: G. Allen and Unwin.

Weil, Patrick. 1998. "The Transformation of Immigration policies. Immigration and control and Nationality laws in Europe. A comparative approach." *EUI Working Papers* 98/5.

__. 2002. *Qu'est-ce qu'un Français*? Grasset: Paris

Weis, Lois. 1985. *Between two worlds: Black students in an urban community college*. Boston: Routledge & Kegan Paul.

Whitol de Wenden, Catherine. 1988. *Les Immigres et la politique*. Paris: Presses de la Fondation Nationale des Sciences Politiques.

Wieviorka, Michel. 1992. *La France Raciste*. Paris: Editions du Seuil.

Wilson, K. L., and A. Portes. 1980. "Immigrant enclaves: An analysis of the labor market experiences of Cubans in Miami." *American Journal of Sociology* 86: 295-319.

Wilson, William J. 1978. *The declining significance of race: Blacks and changing American institutions*. Chicago: University of Chicago Press.

—. 1990. *The Truly Disadvantaged: the Inner City, the Underclass and Public Policy*. Chicago: University of Chicago Press.

Willis, Paul E. 1977. *Learning to Labour*. London: Gower.

Wittke, Carl Frederick. 1952. *Refugees of revolution; the German Forty-eighters in America*. Philadelphia: University of Pennsylvania Press.

Wolpe, Harold. 1986. "Class Concepts, Class Struggles and Racism." Pp. 21-42 in *Theories of Race and Ethnic Relations*, edited by J. Rex and D. Mason. Cambridge: Cambridge University Press.

Wright, Erin O. 1985. *Classes*. London: Verso.

Yuengert, Andrew. 1994. "Immigrants earnings relative to what? The Importance of earnings function specification and comparison points." *Journal of Applied Econometrics* 9: 71-90.

Zhou, Min, and John Logan. 1989. "Returns on Human Capital in Ethnic Enclaves: New York City's Chinatown." *Americal Sociological Review* 54: 809-829.

Zietz, Joachim, and Prathibha Joshi. 2005. "Academic choice behaviour of high school students: economic rationale and empirical evidence." *Economics of Education Review* 24: 297-308.