

## WHAT CAN WE DO TO IMPROVE THE EDUCATION OF CHILDREN FROM DISADVANTAGED BACKGROUNDS?

LOUIS-ANDRÉ VALLET

As soon as we consider education as a public good that is beneficial, not only to private individuals, but also to the organisations in which they work, the neighbourhoods in which they live, and, more generally, economy and society as a whole, serious questions arise about the *allocation of education*, that is to say, about the extent to which education is evenly or unevenly distributed among individuals. In this paper, I will not deal with educational inequalities that exist between individuals who are citizens of different countries, but I will examine educational inequalities *within* societies, more precisely within western industrial or post-industrial, that is to say, *affluent* societies.

In the first part of the paper, I will present a comprehensive account of research efforts that have been mainly pursued over the last three decades in the context of the Research Committee on Social Stratification and Social Mobility of the International Sociological Association. Using large-scale data sets from nationally representative statistical surveys, researchers have systematically examined the extent, the structure and the temporal dynamics of inequality of educational opportunity (hereafter IEO) between adult men and women who have been brought up in different social backgrounds in the sense of different social *classes* or different socio-economic *milieus*. Briefly speaking, within modern western societies, quantitative and empirical sociologists have documented the existence of relatively large and persistent inequalities in educational attainment according to social and cultural origins. During the 1980s and the early 1990s sociologists have indeed been impressed by what appeared then as a constancy or quasi-constancy of IEO between birth cohorts spanning several decades. This is certainly a striking and counterintuitive result: a considerable

expansion in the provision of education took place in many western societies after the Second World War; however, it left virtually unaffected the general level of inequality in the allocation of education between adults from different backgrounds. I will therefore outline the main theoretical argument along which sociologists nowadays explain that inertia in IEO. And I will also evoke the most recent scientific results in the same field. Taking advantage of recent progress in statistical modelling, we are now able to discern modest temporal change in IEO within at least a few countries. We can therefore try to illuminate the institutional and historical circumstances that prevailed during periods characterised by a process of democratisation in education.

In the second part of the paper, using as a background this broad picture of educational inequalities related to ascribed characteristics, I will examine the situation of immigrant children and children of immigrants in the educational systems of the same societies. For that purpose, I will rely on large-scale longitudinal surveys, that is to say, statistical surveys that follow up representative samples of pupils over their school careers. On the basis of such surveys, it is therefore possible to assess how children of immigrants achieve in the educational system of the welcoming societies by systematically comparing their performances and attainments with those of children from native, that is to say, non-immigrant families. In many western societies, immigrant children and children of immigrants possess socio-demographic characteristics that, according to sociological research, are predictors of lower achievement: they disproportionately belong to manual worker families; their parents usually got less formal education than parents in native families; and they quite often have more siblings than children from non-immigrant families – a characteristic that is also on average associated with less prominent educational achievement. Not surprisingly, in those societies, immigrant children and children of immigrants considered as a whole are at a disadvantage in their educational careers when they are compared to the entire group of children from native families. This is *not*, however, the whole story. In at least some societies, that conclusion is actually reversed when statistical controls for social background and family environment are introduced in the analysis. In other words, children of immigrants do *better* in terms of their school careers than native children with the same, often disadvantaged, social background and family environment (notably social class, father's and mother's education and number of siblings). Finally, there are serious grounds for believing that the latter result can be explained by the educa-

tional aspirations of immigrant families: in those societies and *ceteris paribus*, they express more ambitious school career plans for their children than native families and these higher aspirations play a part in the development of their offspring's school careers. However, in some other societies, research results also based on large-scale representative surveys are strikingly different: even after controlling for social background and family environment, children of immigrants suffer from a significant and persistent disadvantage in the development of their school careers. The fact that children of immigrants, sometimes from the same origin, achieve differently in the school system of different societies therefore suggests that national contexts and/or the specific organization of schooling in various countries play a part in the educational attainment of immigrants' children compared to that of native ones. Considering that children of immigrants often are children from disadvantaged backgrounds, that again opens room to think about what can be done to try to improve the education of the latter. This will be the subject of my concluding section.

#### 1. PROGRESS AND CURRENT STATE OF THE ART IN COMPARATIVE EDUCATIONAL STRATIFICATION RESEARCH

Over the twentieth century dramatic increases in the supply of formal education have occurred for successive birth cohorts in western industrialised societies, i.e. these societies have been characterized by a considerably enlarged *distribution* of schooling. In most of them, educational reforms have also been implemented during the second half of the century to provide children from all social backgrounds with increased education and to promote equality of educational opportunity. Sociologists have therefore tried to assess whether or not educational attainment has gradually become less dependent on ascribed individual characteristics (especially social origins) and whether or not a less unfair *allocation* of schooling has progressively emerged in modern western societies.

##### *Several Generations of Comparative Educational Stratification Research*

Temporal dynamics of socio-economic IEO has in fact been studied using various conceptual and quantitative frameworks. As a consequence, several generations of empirical research can be distinguished. Till the end of the 1970s the linear regression model of educational attainment was the

unique approach. Using a metric dependent variable to measure the final amount of schooling, the first period typically answered the following question: what has been the change over time in the effect of social origin variables on the average number of school years completed? Over the years it has become more and more acknowledged that the enlarged distribution of schooling in modern societies has resulted in a historical decline in the dependence of educational attainment on social origins, as evaluated with linear regression models. In France for instance, it has been assessed that considering simultaneously father's and mother's socio-economic group, father's and mother's highest diploma and gender accounts for 32.3% of the total variance in education for men and women born before 1939, but for 20.3% only for men and women born between 1964 and 1973 (Duru-Bellat & Kieffer, 2000). More generally, in a comparative project that reported linear regressions cohort by cohort for eight nations, a downward trend was apparent in the proportion of variance explained by background variables in six of the eight societies (Treiman & Ganzeboom, 2000).

Thus, the first generation of educational stratification research rather clearly established that the educational expansion in a society results in a weaker dependence of educational attainment on social origins. However, in the early 1980s, two shortcomings of this approach became apparent. First, the linear regression model of years of education on social origin conflates and confounds changes in the distribution of education with changes in the allocation of education. More precisely, it conflates and confounds changes in the marginal distributions caused by educational expansion with changes in the underlying association between origin and educational attainment, normally conceptualised as the best measure of inequality of opportunity. And sociologists progressively became more interested in the latter aspect, that is, the 'pure' association between social origin and education, *evaluated net of the educational expansion*. A second shortcoming is that studies based on the linear regression model did not conceive and represent the educational career as the individuals themselves did, namely as a series of transitions between levels.

The second period of educational stratification research therefore began with the proposal of the sequential logistic regression model of educational transitions (Mare, 1980, 1981). Decomposing the intrinsically discrete and sequential nature of an educational career in a series of successive branching points, this model assesses the net effect of social background variables on the odds of 'surviving' each specific transition. With this model it has been observed in many countries that social origin effects

decline steadily from the earliest school transitions to the latest (Müller & Karle, 1993; Shavit & Blossfeld, 1993; Rijken, 1999). For instance, social background effects in the transition from elementary education to lower secondary education are typically *stronger* than those in the transition from higher secondary education to tertiary education. This progressive decline over school transitions has often been attributed to a process of differential selection: from the earliest to the latest school transitions, differential dropout rates systematically reduce heterogeneity between children from different social origins on unmeasured determinants of school continuation such as ability or motivation, and because of the correlation between these variables and social origin greater homogeneity on unmeasured factors at higher levels of schooling reduces the effects of observed social background variables (Mare, 1981: 82). According to a related argument, over birth cohorts the educational expansion increases the proportion of the total population which is exposed to a given transition; then its heterogeneity on unmeasured determinants of school continuation is likely to grow and, as a consequence, the effects of social background variables on the odds of surviving that transition are likely to increase over cohorts. This is indeed what I recently highlighted for France in two papers based on very large representative samples (Vallet, 2004; Vallet & Selz, 2005). Considering thirteen five-year birth cohorts born between 1908 and 1972 (or nineteen three-year birth cohorts born between 1920 and 1976), I was able to demonstrate that the temporal dynamics of the association between social origin and the odds of surviving a given transition is strikingly different from the earliest to the latest school transitions. As regards the first transition (getting any diploma versus no diploma at all), a downward trend in the general strength of social origin effects clearly appears from the early decades of twentieth century. This is also the same from the 1938-1942 birth cohort for the second transition that concerns getting at least a lower secondary or lower vocational diploma versus getting only a primary education certificate. On the contrary, remarkably constant social origin effects characterize the third transition. Finally, a slow but nearly monotonic increase in social origin effects appears from the 1938-1942 birth cohort for the fourth transition. This transition analyses the odds of getting at least a tertiary education degree versus getting only a higher secondary or technical education diploma. So, a pretty clear stylised fact appears: the educational expansion within a society is accompanied by a progressive *decrease* in social origin effects in the first school transitions, but by a progressive *increase* in social origin effects in the last school transitions. Or, in other words, with the edu-

cational expansion, inequality of opportunity related to social origin seems to leave the bottom of the educational system and to rejoin the top.

The sequential model of educational transitions therefore is a powerful tool to analyse structure and change in inequality of opportunity related to social origin within the educational system. As it closely parallels the continuation decision process along the educational career, it provides us with 'pure' measures of social origin effects that are specific for each transition examined. So the sequential model leaves the following question entirely unanswered: if, in a given country, social origin effects decline over birth cohorts for some transitions, but remain stable or even increase for some others, what is the final outcome as regards temporal dynamics in the intrinsic association between highest educational level attained and social origins in that country? Over recent years sociologists have essentially focused on this question, taking advantage of recent progress in log-multiplicative modelling – the 'Unidiff' or log-multiplicative layer effect model (Erikson & Goldthorpe, 1992; Xie, 1992) – that now offers considerable statistical power to discern even slow historical trends which would have gone undetected otherwise. I will now outline the main findings and results that have been obtained in this research field.

### *Findings and Results about Change Over Time and Differences Between Countries<sup>1</sup>*

A major comparative project of empirical analyses was directed by Shavit and Blossfeld, and brought together in the book *Persistent Inequality: Changing Educational Attainment in Thirteen Countries* (1993). It included studies of thirteen industrial countries: six Western European (Great Britain, Italy, the Netherlands, Sweden, Switzerland, West Germany), three Eastern European (Czechoslovakia, Hungary, Poland), and four non-European (Israel, Japan, Taiwan, the United States). These studies were conducted by experts in the stratification and school systems of each particular country. Most contributors used similar background variables (father's occupation or social class, father's education) and outcomes (years of education; transitions from primary to lower secondary, from lower to higher secondary, from higher secondary to tertiary), and

<sup>1</sup> In this section I also rely on the very recent (2005) review of the literature written by my colleagues Richard Breen and Jan O. Jonsson.

they used identical methods (linear regression model of years of education, logistic regression models for transitions). The country chapters assessed change in educational inequality via synthetic cohorts from cross-sectional surveys. The study addressed several macro-oriented hypotheses. According to the modernization hypothesis, one would expect social origin effects to decrease generally, while the reproduction hypothesis states that inequalities may decrease at lower transitions because of educational expansion, but not on higher transitions. The socialist transformation hypothesis assumes that there would be an initial reduction in social origin effects that would be followed by increased effects as new elites pursued their interests. Finally, the 'Maximally Maintained Inequality' (MMI) hypothesis (Hout, Raftery & Bell, 1993) predicts that the effects of social origin only decline at those transitions for which the attendance rates of the privileged classes are saturated.

The major result of the project was that it found little change in socio-economic IEO, i.e. virtual stability across cohorts in the association between social origins and educational transitions, which the editors consider a clear refutation of the modernization hypothesis. Only two countries – the Netherlands and Sweden – experienced a decline in social origin effects for transitions within secondary education, and in both cases that decline occurred before the attendance rates of the upper classes were saturated (which contradicts the MMI hypothesis). In the chapter on Sweden it was suggested that the effects of improved living conditions, school reforms and reorganization, and the equalization of the standard of living in this country were probably the major explanations for the declining association (Jonsson, 1993). These conjectures have been confirmed ever since by demonstrating the importance of, primarily, decreasing income differences and increasing income security, secondarily, the comprehensive school reform (Erikson, 1996; Jonsson & Erikson, 2000). Yet, Shavit & Blossfeld (1993) stressed that, in all the countries examined, the transformations of the educational system did not lead to a reduction in the association between social origins and any of the educational transitions. Finally, the results of the comparative project did not afford any convincing support for the socialist transformation hypothesis.

The *Persistent Inequality* book therefore was an important step to establish the conclusion that IEO is characterized by strong temporal inertia. However, over recent years its results have been scrutinized and some of them have been contested. In particular, subsequent analyses based on larger samples and/or more powerful statistical modelling have clearly shown

equalization trends in some countries. In Italy, a reanalysis of the data revealed declining effects of father's education on the odds of completing the lower levels of the educational hierarchy (Shavit & Westerbeek, 1998). An equalization trend was also demonstrated for Germany (Jonsson, Mills & Müller, 1996) and probably Norway (Lindbekk, 1998) while the results for Sweden (Jonsson & Erikson, 2000) and the Netherlands (Sieben, Huinink & de Graaf, 2001) have been corroborated. In some other countries however, constancy in IEO seems to prevail. This is the case in Ireland (Breen & Whelan, 1993; Whelan & Layte, 2002) and the United States (Hout, Raftery & Bell, 1993; Mare, 1993; Hout & Dohan, 1996). For Soviet Russia, a mixed pattern was found with the association between social origin and education declining at secondary education but strengthening in access to university (Gerber & Hout, 1995); but a later paper found that, in post-Soviet Russia, the association has, if anything, increased (Gerber, 2000). According to most recent research however, it is likely that many countries share in a (relatively modest) change toward a decreasing association between social origin and educational attainment. A research project that jointly analysed comparable data from eight countries – Germany, France, Italy, Ireland, Britain, Sweden, Poland, and the Netherlands – for cohorts born between 1908 and 1972 was able to detect declining association between social origins and educational attainment for all of them except Ireland and Italy, two countries with the smallest sample sizes in the data set (Breen, Luijckx, Müller & Pollak, 2005). The same paper also showed that the distinction, evident in the older cohorts, between highly unequal countries (such as Germany, France and Poland) and the more equal ones (Britain, Sweden and the Netherlands) has diminished somewhat, partly because the biggest declines in IEO have been registered in the countries with greater initial inequality. By way of illustration, I will now depict the main features of structure and change in IEO within French society (Smith & Garnier, 1986; Thélot & Vallet, 2000; Vallet, 2004).

#### *Structure and Change in Inequality of Educational Opportunity in France*

In the first 1908-1912, the median 1938-1942 and the last 1968-1972 birth cohort, educational destination strongly depends on social origin, and in essentially the same way (*Table 1*). For instance, in each generation, men and women with origins in the 'teachers and assimilated occupations' category are the most advantaged, as indicated by the percentage of those who reached a lower or upper tertiary degree. Using the same criterion, children



of higher-grade professionals and managers, then children of lower-grade professionals and technicians are the second and third groups in each generation again. Conversely, children of farmers and smallholders and children of agricultural and unskilled manual workers were equally disadvantaged in the 1908-1912 birth cohort: the percentage distributions are very close and in each case about two-thirds did not get any diploma. In the 1938-1942 birth cohort the offspring of both social groups were again rather close and still appeared to be the most disadvantaged considering their educational qualifications. But children of farmers and smallholders strongly improved their relative position between the 1938-1942 and 1968-1972 cohorts. At the end of the period their educational destinations are considerably more favourable than those of children of agricultural and unskilled manual workers. They are also clearly better than those of children of foremen and skilled manual workers and slightly better than those of routine non manual workers. The examination of simple row percentages therefore suggests that despite strong inertia in the association between social origin and educational destination in France some change has occurred from the early decades of the twentieth century in which children of farmers and smallholders played a significant part.

Statistical modelling demonstrates that the general strength of the 'pure' (i.e. net of educational expansion) association between social origin and educational destination has declined by 35% (in the logged odds ratios) over sixty years. While it has been nearly monotonic, change in the origin-education association was especially sharp between the 1933-1937 and 1948-1952 birth cohorts, then largely levelled off in the three subsequent cohorts, but took off again in the very last one (1968-1972). The decline in IEO in France therefore seems largely independent of major secondary school reforms explicitly introduced from the late 1950s to promote equality of educational opportunity. However, the sustained trend toward equalization between the 1933-1937 and 1938-1942 birth cohorts may confirm Prost's historical study according to which a reform promulgated in 1941 by the conservative Minister of Education Jérôme Carcopino to integrate the *Écoles Primaires Supérieures* in the secondary school system, had positive effects and resulted in declining IEO (Prost, 1990). The downward trend was more pronounced among women than men, especially because the former were characterized by stronger origin-education association until cohorts born in the mid-1930s. Its existence does not depend on the precise variable used to define social background. Change in origin-education association nonetheless appears more resistant to cultural inequalities (parents'

education) than to socio-economic inequalities (parents' social class), a finding which has also been obtained in the Netherlands (De Graaf & Ganzeboom, 1993). Statistical modelling also demonstrates that the improvement of educational opportunities among sons and daughters of farmers played a significant part in accentuating the equalization trend but was not the only factor in creating it.<sup>2</sup> Finally, a counterfactual approach reveals that the decline in IEO from the 1908-1912 birth cohort results in 100,000 'additional' men and women in the 1968-1972 birth cohort, originating from disadvantaged classes, i.e. the peasantry and the skilled or unskilled fractions of the working class, with diplomas in the higher secondary, lower tertiary or upper tertiary categories; they represent 5.8% of all men and women in the 1968-1972 cohort with background in these social groups. This assessment of the concrete effects of declining IEO may be an upper-bound estimate. According to another evaluation based on different surveys, the decline in IEO from the 1920-1922 birth cohort results in 28,000 'additional' men and women in the 1974-1976 birth cohort, originating from the same disadvantaged classes with diplomas in the higher secondary, lower tertiary or upper tertiary categories; they represent 3.1% of all men and women in the 1974-1976 cohort with background in these social groups (Vallet & Selz, 2005). Over and above statistical uncertainty, these assessments exemplify that the decline in IEO has by no means brought about a considerable change in society.

### *Explaining Temporal Inertia in Inequality of Educational Opportunity*

Following pioneering work by Boudon (1974) in the context of rational action theory, several sociologists have proposed theoretical and formal models to account for the high degree of inertia in IEO despite educational expansion (Erikson & Jonsson, 1996a; Breen & Goldthorpe, 1997; Jonsson & Erikson, 2000). Rather convincing empirical tests of these models have also begun to be published (Need & de Jong, 2001; Davies, Heinesen & Holm, 2002; Becker, 2003). I will insist here on what these theoretical efforts hold in common.

Explaining educational inequalities needs to distinguish between 'primary' and 'secondary' effects. Primary effects are all those that are expressed in the empirically observed association that exists between children's social

<sup>2</sup> The same result has also been documented for Germany and Sweden (Jonsson, Mills & Müller, 1996: 194-5).

origins and their average level of academic ability: children of more advantaged backgrounds perform better, on average, than children of less advantaged backgrounds; such a difference appears rather early at school and is cumulative, i.e. the gap tends to increase along the educational career. The determinants of this difference in academic ability may be diverse: differences in home environments, in intellectual stimulation, in cultural factors, in sibship sizes, and so on. Assuming that any difference in academic ability is controlled, secondary effects are those effects that are expressed in the actual choices and decisions that children and their families make in the course of the educational career within the school system – including the choice of exit. Several factors affect these choices and decisions: the perceived cost associated with continuing in education, the perceived benefit associated with continuing in education and the perceived risk associated with continuing in education. These subjective assessments of cost, benefit and risk depend on the family position in the social structure. The perceived cost associated with continuing in education is higher in less advantaged families (in terms of financial effort, earnings foregone and so on). Conversely, the perceived benefit associated with continuing in education is lower in these families than in more advantaged ones because further education is not a *sine qua non* condition for the former to avoid social demotion and to maintain the family position in the next generation. Finally, less advantaged families are more responsive to the risk of failure associated with continuing in education, especially when the academic performance of the child is medium. The structural and quasi permanent nature of these differences in the assessment of cost, benefit and risk associated with school continuation would explain the persistence of secondary effects, the stability of the relative importance of primary and secondary effects and, by that way, the considerable inertia that characterizes socio-economic IEO.

Some research has tried to assess the relative importance of primary and secondary effects: Erikson & Jonsson (1996b) have estimated about equal proportions of class differences in educational attainment to derive from primary and secondary effects, but a recent British study indicates a larger share of primary than secondary effects, both of which appear to have remained pretty stable since the 1970s in the United Kingdom (Jackson, Erikson, Goldthorpe & Yaish, 2005). Finally, Breen, Luijkx, Müller & Pollak (2005) recently suggested that the declining trend in IEO they observe for six European countries may be related to significant temporal changes in the cost component of family educational decisions as well as a decline in primary effects because of the long term improvement of general living conditions.

TABLE 1. Educational Destinations for Each Category of Social Origins in the 1908-1912 Birth Cohort (N=3,577), the 1938-1942 Birth Cohort (N=25,493) and the 1968-1972 Birth Cohort (N=11,063) – France

	Birth cohort	No diploma	Primary education certificate	Lower secondary diploma	Lower vocational diploma	Higher secondary diploma	Lower/upper tertiary degree	Total
Farmers and smallholders	1908-1912	66.1	28.4	1.3	2.3	1.1	0.9	100
	1938-1942	28.0	40.2	4.6	18.0	4.5	4.6	100
	1968-1972	9.6	0.8	2.3	33.3	21.1	32.9	100
Artisans and shopkeepers	1908-1912	38.2	45.1	5.6	6.2	3.5	1.4	100
	1938-1942	14.2	24.9	10.2	24.9	12.4	13.5	100
	1968-1972	12.8	1.4	5.6	31.4	15.8	33.1	100
Higher-grade professionals and managers	1908-1912	19.7	24.9	12.3	12.5	16.0	14.6	100
	1938-1942	7.1	7.3	8.3	12.8	20.5	44.0	100
	1968-1972	4.9	0.1	3.0	8.7	18.6	64.8	100
Teachers and assimilated occupations	1908-1912	17.1	25.7	8.6	7.3	21.6	19.8	100
	1938-1942	4.9	2.0	7.2	11.3	18.9	55.7	100
	1968-1972	4.2	0.3	2.5	8.0	15.6	69.4	100
Lower-grade professionals and technicians	1908-1912	15.2	35.1	15.6	16.5	12.4	5.2	100
	1938-1942	9.6	14.0	10.9	24.6	18.3	22.5	100
	1968-1972	7.4	0.3	4.4	18.3	20.4	49.3	100
Routine non manual workers	1908-1912	39.1	38.1	5.5	10.3	4.1	2.9	100
	1938-1942	15.4	21.7	9.4	28.3	12.6	12.6	100
	1968-1972	14.5	0.7	5.4	31.2	19.5	28.6	100
Foremen and skilled manual workers	1908-1912	45.9	37.6	3.6	9.3	2.3	1.3	100
	1938-1942	20.8	30.1	5.6	29.1	8.3	6.1	100
	1968-1972	19.1	0.8	5.5	35.2	18.1	21.4	100
Agricultural and unskilled manual workers	1908-1912	65.2	27.8	1.1	4.8	0.8	0.3	100
	1938-1942	30.2	33.4	4.7	23.4	4.7	3.6	100
	1968-1972	27.3	1.7	6.6	38.2	14.1	12.2	100
Total	1908-1912	51.5	32.7	3.8	6.2	3.4	2.4	100
	1938-1942	20.8	28.1	6.7	23.3	9.5	11.6	100
	1968-1972	15.0	0.8	5.0	28.6	17.7	32.9	100

## 2. THE EDUCATIONAL ATTAINMENT OF CHILDREN OF IMMIGRANTS COMPARED TO THE OTHER CHILDREN: LESSONS FROM LONGITUDINAL STUDIES

As a consequence of the increase of immigration in numerous industrialised societies during recent decades, the number of children who are brought up in immigrant families has progressively risen and the educational attainment of immigrant children and children of immigrants has become an important issue of sociology of education. Some studies concentrate on the achievements of these children to provide powerful comparisons between members of different ethnic origins. In the United States for instance, Portes & MacLeod (1996) have carried out a study of more than 5,000 second-generation high-school students in Florida and California and have compared children of Cuban and Vietnamese immigrants (representative of relatively advantaged groups) and of Haitian and Mexican immigrants (representative of relatively disadvantaged groups). The authors found that parents' socio-economic status and length of residence in the United States significantly affected the students' academic performance as measured with standardized tests in mathematics and reading, but did not eliminate the effects of ethnic community.

Other studies are designed to incorporate not only immigrant children or children of immigrants but also native children. They therefore compare the educational attainment of the former group with that of the latter and examine how immigrants' children adapt to school in the society of immigration and whether they are confronted with ethnic educational disadvantages. In Germany where secondary education consists of three hierarchically ranked tracks – *Gymnasium*, *Realschule*, *Hauptschule* – in which children are streamed at the end of elementary school, Alba, Handl & Müller (1994) have used the 1989 *Microzensus* and the German Socio-Economic Panel to study ethnic inequalities in the German school system. They found that, relatively to young Germans with identical socio-demographic characteristics, Italian, Turkish and Yugoslav children are overrepresented in the least prestigious track, leave it more often without obtaining any apprenticeship and are underrepresented in *Gymnasium*. Only the smaller group of Greek children contrasts with this picture and in some respects obtains better school careers than German children. Finally, the empirical test the authors provided in order to explain the school handicap faced by Italians, Turks and Yugoslavs highlights the role of both cultural aspects and continuity of school attendance in Germany.

However, it seems that the school situation of immigrants' children can be strikingly different in different countries, even for children from the same

origin. Let me consider now the Australian study conducted by Clifton, Williams & Clancy (1991). These authors have investigated data collected between 1975 and 1980 in a national longitudinal survey of pupils aged 14 in 1975 and followed up in subsequent years. They found that, at the age of 14, pupils from Greek and Italian origins performed less well in English and arithmetic than other pupils with similar socio-demographic characteristics and Australian or English background. However, the former were more numerous than the latter to complete upper secondary school and the regression analyses the authors provided highlights the role of socio-psychological factors in these more favourable school trajectories: pupils belonging to Greek and Italian minorities found more support for their studies in their environment – their friends, their parents and their teachers – and they also developed a more positive conception of their academic value.

The fact that immigrants' children, sometimes from the same origin, achieve differently in the school system of different societies therefore suggests that national contexts and/or the specific organization of schooling in various countries play a part in the educational attainment of immigrants' children compared to that of native ones. I will begin by examining different factors that potentially affect the educational attainment of children, elaborating a distinction between factors that are probably common to all children, that is to say, immigrants' children and native ones, and factors that may be more specific to the former group.

### *The Educational Attainment of Immigrants' Children and Native Ones: Common and Specific Factors*

In the sociological literature, it is widely recognized that the assessment of the effect of immigration on educational success has to be disentangled from the effect of other ascribed characteristics such as gender and social class. This is for instance true in France where, as a consequence of the strong correlation between immigration and membership in the working class, early research systematically compared the educational outcomes of foreign children born in a manual worker family with those of French children in the same class (Clerc, 1964; Boulot & Boyzon-Fradet, 1988).

It is however doubtful whether social class, as operationalized with the occupational group of the head of the household, adequately captures all relevant features of the family that are likely to affect educational success. On the contrary, international research on the determinants of educational attainment has amply demonstrated that a number of family aspects are at

work. Some of them approach socio-economic or material resources: in this respect, the occupational group of the head of the household obviously is a major variable, but maternal employment status and family income also have to be considered. Secondly, the cultural resources inside the family are likely to affect the educational success of the child: parents' highest diploma and any other family characteristic which might favour or help the child's schooling are relevant here. Thirdly, it is necessary to take account of other objective aspects in family situation that may be influential, notably structure of the family, total number of children and rank of birth of the child.

If immigrant families differ from native families not only on the basis of their distribution in social classes, but also on other characteristics such as parents' education or family size, we may expect that introducing a full set of socio-demographic characteristics in the analysis rather than controlling only for the occupational group of the head of the household will allow us to assess the effect of immigration on educational outcomes much more precisely. In fact, if immigrant parents not only are manual workers more frequently, but also have less formal education and larger families (which is for instance the case in France), we may predict that controlling only for the occupational group of the head of the household will produce a negatively biased estimate of the effect of immigration on educational success of the child.

With regard to the educational attainment of immigrant children and children of immigrants, two specific issues deserve special attention. The first one concerns the dynamics of change in academic performance that can be observed for immigrants' children over the school career and the question is whether this dynamics differs from that observed for native children with similar socio-demographic characteristics. Immigrant children and children of immigrants grow up and are primarily socialized in a family which is often strongly marked by its native language and culture, then they are exposed to the educational system of the receiving society which can be conceived as an important institution in their secondary socialization. We might then expect that a continued school attendance in the society of immigration and the duration of exposure to its educational system have specific effects on the progress of immigrants' children in academic performance.

In the available literature, some studies have examined whether, with regard to attainments measured with standardized tests, pupils belonging to immigrant families progress more in a given span of time than other pupils with similar characteristics. They have used analysis of covariance

models to explain differences in a final level of attainment with a set of variables including an initial measure of the same proficiency. In such models, the regression coefficient estimated for a particular sub-group of pupils therefore indicates that, within the considered period, they made more progress, as much progress or less progress than other pupils who, in other respects, possess similar characteristics.

In an English longitudinal study of twenty comprehensive secondary schools, Smith & Tomlinson (1989) consistently observed that, between the ages of 13 and 16, pupils belonging to minorities progressed more in English and mathematics than their schoolmates of the same social classes. A similar result was obtained in France with a sample of nearly 3,000 children examined at the beginning and the end of the third year in elementary school (Bressoux, 1994) and in two studies about school careers in the first two years of lower secondary school (Ernst & Radica, 1994; Meuret, 1994). On the other hand, Mingat (1991) concluded in favour of greater progress, during the first year of elementary school, for foreign-born non French children only, and obtained an opposite result for France-born foreign children. Finally, according to Serra & Thauvel-Richard (1994), the pupil's nationality introduces no significant difference in attainments reached during the third year of elementary school.

Another important issue concerns the effect of motivation and educational aspirations of immigrant families on the educational attainment of their children. The desire for a better life and for upward mobility often constituted an important motive for decision of emigration. A lot of immigrant families nevertheless hold low social positions in the society of immigration. They might then perceive investment in the educational system as the main path to upward mobility available to them. Compared with other families endowed with the same material and cultural resources (that are notably linked to their social condition and their educational level), immigrant families would then hope more keenly that their children acquire high educational skills. In other words, there are grounds to think that immigrant children, children of immigrants and their families develop stronger aspirations and expectations towards the educational system of the receiving society than other members of the same social classes.

The Australian longitudinal study I previously mentioned is *not* the only research that underlines the existence of such socio-psychological factors. In an analysis of the American National Education Longitudinal Study which has observed a sample of 26,000 eighth graders since 1988, Muller & Kerbow (1993) present a graph that expresses the proportion of parents



who expected their child to graduate from college by parents' highest level of education and race/ethnicity. Without exception and for each parental educational level, the point of the diagram associated with Whites is below the three others that concern Asian Americans, Hispanics and African Americans. Muller & Kerbow interpret this result as indicating that parents belonging to minorities are more sensitive than others to the social rewards brought by education. In an investigation based on the same survey, Kao & Tienda (1995) confirmed that foreign-born parents had significantly higher educational aspirations for their children than did native-born parents. They found empirical support for the thesis of 'immigrant optimism' according to which immigrant parents' optimism about their offspring's socio-economic prospects decisively influences the educational outcomes of first- and second-generation youth. The results also suggest that behavioural differences between immigrant and native parents are essential ingredients in explaining the differential performance of immigrant and native youth. In France, concluding a two-year longitudinal study of about a hundred lower secondary schools, Grisay (1993) notes that immigrants' children seem to be on average better disposed towards school than French youth of the same social class and that they are more anxious to 'do the right thing' and to conform to their teachers' expectations. Closely similar observations were also made in England (Smith & Tomlinson, 1989).

#### *Findings from the 1989 French National Education Longitudinal Study*

In several publications in French (Vallet & Caille, 1996a, 1996b; Vallet, 1996), we used the 1989 French National Education Longitudinal Study (NELS) to assess the academic success of immigrants' children in the French elementary school and lower secondary school. More precisely, the examined sample (N circa 18,500) comprised all children born the 5th of a month who entered lower secondary school (first form) in September 1989 in a public or private institution of metropolitan France and whose family answered a complementary survey in spring 1991.<sup>3</sup> In order to approach the population of immigrants' children in the absence of any information about parents' country of origin, various criteria were used including nationality of the child, birthplace of the child, the number of years of elementary schooling outside France, the number of years the parents have lived in France, and language spoken at home.

<sup>3</sup> The response rate to the complementary family survey was 80.6%.

With regard to the measurement of academic success in elementary school, we used retrospective information collected in autumn 1989 from the secondary school and in spring 1991 from the family and we considered as an indicator of success the fact that the pupil did not repeat a year. According to such an indicator, we systematically observed that immigrants' children were less successful than their schoolmates in the French elementary school, but except for pupils who migrated themselves (i.e. children born in a foreign country and children who experienced elementary school years outside France), this difference generally disappeared after controlling for a set of socio-demographic characteristics including social class of the head of the household, father's and mother's level of education, and number of siblings.

We also analysed standardized test scores (whose range is 0-100) in French and mathematics at the outset of secondary school. For instance, relatively to French first form entrants, foreign pupils on average obtained 8.7 points less in French and 6.1 points less in mathematics. Again, differences in socio-demographic characteristics between foreign and French pupils were largely responsible for this achievement gap. In an analysis controlling for family and social background, the regression coefficient estimated for foreign pupils was no more significant in mathematics and amounted to -1.4 point in French (Vallet & Caille, 1996b). In other words, the net handicap of foreign pupils in French represented only 16% of the gross handicap; its size was also close to the net difference between pupils in a three-children family and those in a two-children family.<sup>4</sup>

With regard to the measurement of academic success in lower secondary school, we used the information collected from the school over the four years after enrolment in secondary education, that is to say, until June 1993. The indicator of success combined completion of lower secondary school in due time (no year repeated among the four required) with orientation towards long studies leading to *baccalauréat*. With this indicator, we again observed that immigrants' children were less successful than their schoolmates in the French lower secondary school. However, compared to the gap measured in elementary school, the difference was subsequently reduced (Vallet, 1996). More surprisingly, the difference was even systematically reversed in regression analyses controlling for socio-demographic characteristics of children and their families: the academic careers of immi-

<sup>4</sup> Closely similar results have also been obtained in the Netherlands (Van't Hof and Dronkers, 1994).

grants' children in the French lower secondary school were therefore *better* than those of their schoolmates who, in other respects, possessed similar social background and family environment.

It therefore appeared that belonging to immigrant minorities had at first a nil or negative effect, then a positive one. Although such a change over time might suggest that, while social and cultural handicaps affect the performance of immigrants' children in primary school, their performance improves as they become more acquainted with the system year after year, we found no real support for this thesis in the results obtained at the *brevet* examination (after four years in secondary school). And we found much more support in favour of the 'family mobilization thesis' (Van Zanten, 1997) according to which immigrant parents' aspirations and their practices in relation to schooling play a central role in their children's success at school: *ceteris paribus*, immigrant families expressed stronger aspirations towards long studies and more ambitious school career plans for their children. For instance, in spring 1991, immigrant parents were more prone than other (comparable) parents to wish that their child went on studying till 20 or more and they were also more prone to tell that a tertiary education certificate is the most useful diploma to find a job. And again, in June 1993, after four years in lower secondary school and relatively to other families with similar socio-demographic characteristics, immigrant parents more often asked for an admission of their child to upper secondary school.<sup>5</sup>

Although these results rather convincingly suggest that, in French society, the educational system appears to immigrant families as an important vehicle for social mobility, two potential limitations must be emphasized: first, only incomplete careers in secondary school were analysed; second, in the absence of quantitative measures of school performance or grades, admission to upper secondary school was considered the main indicator of success in lower secondary school. The real issue of academic careers in the French secondary school was therefore unknown and we might wonder whether immigrant families' aspirations actually facilitated the educational attainment of their offspring.

<sup>5</sup> This result was obtained in logistic regression analyses controlling for social class of the head of the household, father's highest diploma, mother's highest diploma, mother's employment status, number of children in the family, gender of the child, rank of birth of the child, presence/absence of an older brother or sister in upper secondary school or university, structure of the family and child's academic performance at enrolment in secondary school.

This is the reason why, in a subsequent paper (Vallet & Caille, 1999), we used a rather stringent criterion of success in secondary school (obtaining the *baccalauréat général* or *baccalauréat technologique* diploma after seven years) and we also used a less stringent one which notably permits that the pupils repeat a year in secondary school once or twice (obtaining the *baccalauréat général* or *baccalauréat technologique* diploma after seven, eight or nine years). On the basis of such indicators, immigrants' children clearly were at a disadvantage in the French secondary school. For instance, only 19.4% of foreign pupils who entered secondary school were successful at the *baccalauréat* examination after seven years as opposed to 31.8% of French pupils; only 41.8% of the former passed the examination after seven, eight or nine years as opposed to 57.9% of the latter. But these differences had nothing to do with an ethnic educational disadvantage because most of them virtually disappeared after controlling for the occupational group of the head of the household. Moreover, when a more complete set of socio-demographic variables was introduced in order to take account of a number of family characteristics which are likely to affect school success, the difference was even reversed: immigrants' children were more successful in the French secondary school than native children with the same social background and family environment, and the difference was even more pronounced when the statistical analysis controlled for the level of academic performance at the outset of secondary school. The difference was also larger with the less stringent criterion of success than with the most rigorous one, thereby suggesting that, compared to other pupils, immigrants' children were more persevering in the direction of success when they faced school difficulties. Finally, the difference between immigrants' children and native ones decreased when the educational aspirations of the families were included in the regression model. Such a result therefore indicated that the strong aspirations immigrant families expressed in 1991 had a mediating effect and partly explained the more favourable school trajectories of their children. It was difficult to assess whether these results applied to the different foreign nationalities to the same extent because the design of the National Education Longitudinal Study did not allow powerful comparisons between them. We might however notice that these results were reproduced on one or both criteria of success for five of the six most numerous groups in the survey, i.e. Algerians, Moroccans, Tunisians, Portuguese and South-East Asians; only Turks seemed to be different in this respect.

The net advantage of immigrants' children over native ones did not correspond to a better success at the *baccalauréat* examination *per se*. Moreover, among pupils who passed the examination, a complementary analysis suggested that immigrants' children obtained less brilliant results than their schoolmates. The net advantage of immigrants' children rather accumulated over the entire school career, primarily in lower secondary school and secondarily in upper secondary school, and the educational aspirations of immigrant families played a part in this process.

Some similarity therefore exists between the results provided by the French 1989 National Education Longitudinal Study and those exhibited by Clifton, Williams and Clancy (1991) in Australia and by Muller and Kerbow (1993) as well as Kao and Tienda (1995) in the United States. Although they are strongly disadvantaged by their class location and their level of education, immigrant families in France invest in the educational system to improve their children's future, they develop strong educational aspirations for them and, in return, these socio-psychological factors have a key role in explaining the educational attainment of immigrants' children in the French lower and upper secondary school.

#### *Are These Results Robust Results?*

Over recent years, several French studies have examined whether these findings may be corroborated and/or made more specific. Using simultaneously the 1980 and 1989 NELS, Bénabou, Kramarz & Prost (2004) have controlled for a number of socio-demographic and contextual characteristics; they have observed that foreign pupils get better access to third form and fifth form of secondary school and also obtain 'better' diplomas than French comparable pupils. On the basis of a time-diary complementary survey, Cibois (2002) has shown that North African children more often adopt school willingness behaviours at home. But the most recent studies have essentially been carried out on the 1995 NELS, a representative sample of all secondary school first form entrants in September 1995 whose school trajectories have been followed up onwards (N circa 14,900). This survey has also been supplemented by a 1998 Family survey (that permits a rigorous identification of immigrant families) and a 2002 Youth survey. The latter has specifically examined the youths' experience of schooling and their educational and occupational plans for future.

First, Caille & O'Prey (2002) have confirmed the worse achievement of children of immigrants relatively to the other children in elementary school

and lower secondary school, and they have also confirmed that this achievement gap is considerably reduced or even reversed in analyses that take socio-economic and family characteristics into account. They have also provided rather convincing evidence that, over the four years of lower secondary school, children of immigrants progress *more* in French, foreign language and mathematics than their schoolmates with the same family and background situation. The same authors have also observed that, especially because of their low education, parents in immigrant families are less able to help their child in his schoolwork and have less contacts with teachers and school principals. These differences with native families are *not* fully eliminated after controlling for a number of socio-demographic characteristics. However, that does not mean that immigrant families have less interest in their child's schooling. For instance, except for Turks, immigrant families pay for private lessons for their child at least as often as manual worker native families. And immigrant families register their child in a public library considerably more often than all other families. Second, Brinbaum & Kieffer (2005) as well as Caille (2005a) have scrutinized the parents' and youths' educational aspirations in immigrant families. They have confirmed that immigrant families have more ambitious school career plans for their offspring than native and comparable families, elaborating a further distinction between families of North African and Portuguese origins. These educational aspirations are also less reduced than in native families when the adolescent encounters school difficulties. Finally, parental aspirations are transmitted to children of immigrants who reinterpret them. Seven years after entering secondary school and despite their academic achievement that is on average less favourable, adolescents in immigrant families more often plan to engage in tertiary education, choosing relatively short commercial and administrative paths rather than long and purely academic tracks, a preference that may be related to the view, in immigrant families, of the educational system as the main way to improve material living conditions. Third, Caille (2005b) has analysed the experience of immigrants' children at the end of fourth form and fifth form, that is to say, at moments of the school career that are characterized by important orientation decisions. As they develop high educational aspirations and plans, and simultaneously have on average lower academic achievements than other pupils, children of immigrants more often have their orientation plan and wish refused by the teachers' team, especially those of North African and Sub-Saharan origins. That implies that adolescents of North African and Sub-Saharan origins more often express a feeling of

injustice and those of Turk and Sub-Saharan origins more often consider that their actual orientation has been constrained by insufficient academic achievement.

Finally, it is probably worth emphasizing that the above results (that have been entirely obtained on French large-scale and longitudinal surveys) are *not* at odds with two recent reviews of the corresponding sociological literature in the United States (Kao & Thompson, 2003; Waters & Jiménez, 2005). As Kao & Thompson stated in their conclusion (2003: 435):

Overall, there are many signs of optimism. Racial and ethnic gaps in educational achievement and attainment have narrowed over the past three decades by every measure available to social scientists. Educational aspirations are universally high for all racial and ethnic groups as most adolescents expect to go to college. However, substantial gaps remain, especially between less-advantaged groups such as African Americans, Hispanics, and Native Americans and more advantaged groups such as whites and Asian Americans. The racial and ethnic hierarchy in educational achievement is apparent across varying measures of the academic experience.

### 3. CONCLUSION

What can we do to improve the education of children from disadvantaged backgrounds? In this paper, I have argued that, even in affluent societies, there is rather strong, persistent and pervasive inequality of educational opportunity between children and adults with different ascribed characteristics such as social origin and ethnic origin. Indeed, it took many years before quantitative sociologists became able to discern modest change in the temporal dynamics of the association between social origin and educational attainment, over and above change mechanically afforded by educational expansion. On the basis of what we have learned, progress toward more educational opportunity seems to have intervened in periods of declining income inequality and was also a consequence of school reforms, notably the introduction of the comprehensive school that resulted in postponing the earliest decision point in the school career. That view is coherent with the fact that, in Germany which is a country characterized by a highly- and early-tracked educational system, children of immigrants are strongly disadvantaged in their educational attainment relatively to native children with the same family and social background. Inequality of

educational opportunity is also characterized by strong temporal inertia because families *themselves* are at the root of such inequality. This is the case because of the different abilities families in different social classes have to provide learning environments that result in high academic ability – what sociologists have called ‘primary effects’. But this is also the case because families in different social classes create inequality of educational opportunity by themselves, on the basis of their different assessments of benefits, costs and risk (or probability of success) associated with further education – what sociologists have called ‘secondary effects’. And we certainly need very active and specific policies to become able to modify the relative positions of different social classes with regard to those parameters. But longitudinal studies of the educational attainment of immigrants’ children also tell us an interesting story, especially as regards their ‘paradoxical success’. Because these studies demonstrate that immigrant families’ high educational aspirations *can*, to a certain extent, change the future of their offspring. They also suggest that the lack or weakness of parental education has different effects on how families consider their children’s future, if it is due to non-existence or deficiency of the educational system in the country of origin – which is often the case among immigrant families in France – or if it comes from school difficulties encountered during youth – which more often concerns parents with the same low education who have always lived in France. This is certainly a demanding, but also exalting task to think about and try diminishing inequality of educational opportunity within societies of the XXIst century.

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