

**European Group of Research on Equity of the Educational Systems**

# Equity of the European Educational Systems

A set of indicators



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# Introduction

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*Equity of the European Educational Systems. A Set of Indicators* is the result of collaboration between six European university teams, and was carried out as part of the *Socrates* 6.1.2. programme, with the support of the European Commission.

The project is intended to measure and compare the equity of the education systems in the European Union Member States<sup>1</sup>. Thanks to it, decision-makers and users will be informed of the equity of the existing systems. This informative tool may help decision-makers to redefine the educational politics.

This publication reports on a two-year period work on the issue of the equity of educational systems. It is structured into three main sections:

A first part, entitled *Devising indicators of equity of educational systems: why and how ?*, defines the concepts of equality and equity, and presents the framework of indicators and its guiding principles.

The second part, *A set of indicators on the equity of the educational systems*, presents the twenty-nine indicators built in the context of this project and organized according to the framework.

The third part, *The equity of European educational systems. An interpretation of the 29 indicators*, presents an analytical interpretation of the equity indicators.

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<sup>1</sup> At the very moment when this project started in May 2001, the European Union had 15 member states. The built indicators and presented here concern these 15 countries (plus Norway and Switzerland). At the end, the set of indicators should be able to be extended to the 25 member states the EU has today.





# **PART 1**

## **Devising indicators of equity of educational systems: *why and how ?***

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# Why devising indicators on the equity of education systems ?

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Indicators measuring inequalities have been appearing for a long time in international publications dealing with education, particularly in the OECD *Education at a Glance*, and in *Key data on education in Europe*, the regular publication of the European Commission prepared by Eurydice. The various reports produced as a result of international evaluations of students achievement (for instance, OECD, 2001; Beaton *et al.*, 1996) also contain indicators on inequalities. In addition, several international education research programmes have proposed comparisons (Shavit and Blossfeld, 1993; Müller and Karle, 1993) in important fields like social inequalities in school careers. Other international surveys (*European Households Panel*, *European Value Survey*, *Luxembourg Income Study*, etc.) also provide interesting information, as do certain national surveys. However, the latter do pose sizeable compatibility issues.

The work carried out in the context of Action 6.1.2 of the *Socrates* Programme was made possible by the European Commission and the national contributions of the participating partners. It was initiated by certain members of the *ad hoc group on equity issues* (OECD) convened in Geneva by Norberto Bottani and Walo Hutmacher. A publication by this group (Hutmacher, Cochrane and Bottani, 2001) provided a first theoretical framework of indicators (Meuret, 2001b) on which basis the current project took shape.

The new feature of this work is its systematic – by determining the principles to propose some points of reference in a broad and relatively new field – and comparative approach of the equity of European educational systems.

This comparative approach has been adopted for several reasons. It seems that in Europe, equity in education is rapidly becoming a major political issue. Furthermore, the publication of indicators can help to raise and to structure the related democratic debate. Even in the 60's, when scientists of different countries put into evidence the persistence of social inequalities in school careers, this topic did not really represent a political problem: citizens did not consider national governments as responsible for the inequalities that were felt as injustice and did not select the politicians according to their (in)ability to reduce such inequalities. The quantitative democratisation in terms of access to education and wealth undoubtedly helped to hide new and less obvious inequalities.

However, in other countries, fairness in education became a political issue. In the United States, for instance, the Supreme Courts of several states had to rule on complaints made by associations fighting for civil rights against the organization of certain educational systems. Kentucky is the most famous example<sup>2</sup>. While education was not a matter decided at the federal level of authority, educational choices played an important role in the last presidential campaign. In Europe, this type of concern has not yet emerged with the same acuteness, but it is likely to quickly rise up.

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<sup>2</sup> About Kentucky ??

So, European citizens are becoming more and more demanding in relation to an education system perceived both as expensive, and which no longer offers guaranteed career prospects or a future. At the same time, the social consequences of failure at school are considered as increasingly important. Moreover, the idea that children and young people must also be treated justly is gaining ground. Consequently, educative systems are being given increasingly precise targets, which are, in some cases, quantified, in terms of both efficiency and equity.

At the same time, the criticism of redistribution of wealth as practised in its classic form by the Welfare state is developing since this practice is considered as personal-responsibility reductive. That criticism is leading to make the financing and management of education into the principal means available to the state to maintain within limits that are compatible with justice, not only the inequality of opportunities, but also the inequality of income<sup>3</sup>. At the very moment when the state itself does recognize it as one of its major tasks, individuals are going to care more about the equity with which education is distributed. Therefore, education, and the equity of its distribution, will become a political issue in the precise terms that were mentioned above.

The premises of this can already be seen. For instance, a French survey conducted in July 2000 on four hundred parents, showed that only 31 % of “employee” parents, compared with 65 % of “executive” parents, found that “secondary education schools treated students equally” (Challenge, 2000) . On the other hand, another survey conducted in Switzerland, pointed out that 70 % of Swiss adults considered that school itself has a considerable responsibility in creating educational inequalities (Hutmacher, 2001).

However, people do not judge government only on the equity of education. They also take an interest in the way in which the distribution of educational assets respects their rights. For example, freedom to choose schools constitutes a basic, or even a constitutional right, that cannot be limited by a concern for fairness (Brighouse, 2000). They are also interested in the efficiency of their educational system, i.e. its cost, its internal and external efficiency, or its capacity to pass on skills that are useful to society and to the nation. The emphasis on equity does not replace any other concern. On the contrary, citizens are demanding both efficiency and equity. They are no longer prepared to settle for speeches explaining the inequalities either by the regrettable necessities of competition for efficiency, or the absence of efficiency by a virtuous choice in favour of the weakest members of society. They need to have indications about efficiency and equity, since they can no longer settle for indicators about the former (*Education at a Glance*, for example) and pious wishes about the second. It is for this reason that it is essential to publish indicators about the equity of educational systems with the intention of providing useful information to the citizens as well as to those responsible for the educational system. These indicators are intended to provide a needed supplement to the information already available about costs and results.

Before presenting the guidelines adopted to select the indicators on the one hand and the set which resulted from them on the other hand, the following chapter introduces the reasons for which the idea of equity has been preferred rather than the idea of equality.

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<sup>3</sup> Pay inequalities are partly due to a mismatch between supply and demand for skilled workers, which in turn depend on training policies.

# Equality and Equity

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## Beyond formal equality

Anyone who talks about equity rather than equality is generally suspected of having abandoned a safe territory and a clear concept for a minefield and a fuzzy concept. For many of the supporters of egalitarian views, the main appeal of this new positioning would be to justify unjustifiable inequalities for the benefit of the dominant class. Therefore, some explanation is required on this point.

It is true that equity is a more difficult concept than equality, and that it allows, in its principle, inequalities; nevertheless, it is a concept that allows to go beyond a purely formal examination to perform a multidimensional analysis. In fact, a strictly egalitarian vision, which would aim to give everyone the same treatment, while ignoring the characteristics of each individual at the outset, or even, the results in terms of reproduction of the initial inequalities, would force us to question its very foundations, precisely for reasons of equality. Therefore, the majority of authors – political philosophers or economists – who endeavour to define equity consider that an equitable situation is less inegalitarian than the strictly egalitarian approach. However, authors like Nozick (1974) and, in general, libertarian authors, argue that inequalities that are produced by a process which does not infringe "legitimate property rights" are themselves legitimate. This leads them to assert that all public policies aimed at reducing them are, by nature, illegitimate (for a presentation of Libertarian theories, see for example Kymlicka, 1999 or Van Parijs, 1991).

The famous words by Amartya Sen (1992): "*Equality of what?*" enable us to better understand why we need to go beyond the concept of formal equality. Indeed, the most widely accepted principle of justice – meritocracy – allows infinite inequalities in levels of schooling, provided that they reward individual "merit", which is difficult to define. The only equality in education which almost everyone agrees with, the equality of opportunities, is a hypothetical equality. As Rawls (1987) says: "Assuming that there is a distribution of natural assets, those who are at the same level of talent and ability, and have the same willingness to use them should have the same prospects of success, regardless of their initial place in the social system" (p. 73). This approach relies on concepts with questionable operability: talent, ability and even desire; how can they be measured or even assessed? The social inequalities in relation to school are, on the other hand, so obvious that we must criticize their scale or be pleased when they are reduced, but it is a quite different matter to decide whether fairness requires, whatever the cost in the other dimensions, exact equality of school careers between social groups. In fact, what the concept of fairness answers to Sen's question is "equality of persons", political equality and equality in dignity. The discussion about equity begins when it is necessary to define the assets that should be equalized according to this principle (Sen, 1982) or which principles of distribution equity demands for such or such type of good (Rawls, 1971; Walzer, 1983).

Let us accept, for the time being, the general idea that a fair educational system is a system that treats all pupils as equals and which aims to encourage a fair society, in which essential assets are distributed in accordance with the rules of justice and which encourages cooperation on an equal footing. One immediately understands that such a definition of equity demands that certain educational assets are distributed equally – teachers of identical quality, for example – but that other assets are distributed in proportion between contribution and reward – marks, punishment, the careers accessible with the same qualifications, for example – that the inequalities in others should not be “excessive”, that more of certain assets are given to the best pupils (longer education) and more of other assets to the less able pupils (better ratio of students to teaching staff or specialized education), etc. This rapid analysis shows that a strictly egalitarian approach is impossible and that we must take account of a multiplicity of principles of justice, assets connected with education or groups of individuals. To answer Sen, it must be specified which equalities we are talking about and, by doing this, envisaging the discussion in terms of equity.

## **Education : Equality of what ?**

Adapted from Grisay (1984), the following table gives an overall vision of the five major principles of equality in terms of education, and presents the postulates and the consequences of these various principles of justice.

The first concept, not specified by Grisay and marked “A”, refers to a “natural”, or libertarian concept. Only concepts B to E, really draw on the principles of equality (see also Demeuse, Crahay, Monseur, 2001).

Whether we talk about equal opportunities, equal treatment, equal achievement or equal results, we stumble over the practical or theoretical limitations connected with the adoption of a particular theory.

So, in the first case (B), the wish is that the social background does not influence success at school, but this is subject to criticism by those who claim that this leaves the possibility open to give better educational conditions to those with greater ability, which is traditionally known as the “Matthew effect”<sup>4</sup>.

In the second case (C), the same educational conditions are given to all, but this is open to criticism from those who think that some people, because they suffer from a handicap of one kind or another, need better educational conditions.

In the third case (D), equality of results is desired, at least for a certain level of knowledge, but this comes up against those who claim that by pursuing this objective, the best pupils are deprived of the possibility of progressing as far as possible, which is referred to as the “Robin Hood effect”<sup>5</sup>.

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<sup>4</sup> “For to him who has will more be given, and he will have abundance; but from him who has not, even what he has will be taken away”. (Matthew, Ch. 13:12).

<sup>5</sup> Like Robin Hood, who robbed the rich and redistributed to the poor, the time the teachers should devote to the weakest pupils to help them to progress would be taken from the best pupils.

**Table 1.** *Five principles of equality in education* (adapted from Grisay, 1984, p. 7).

Assumed	Admitted	Criticized	Recommended
<b>A – No interest in equity: “natural” and “libertarian” positions</b>			
Birth, strength or belonging to a particular group determine rights. Liberty can only suffer from forced redistribution.	Reproduction and maintenance of the "natural" order and differences based on fair acquisition.	Possibly, inequalities in groups of peers. Interventions contrary to liberty.	A stable order, a sharing of functions (society of castes, orders, etc.) or a system based on liberty of the actors.
<b>B – Equality of access or opportunities</b>			
The existence of talents, of potential or natural aptitudes. These define the level or threshold that the individual may hope to achieve.	Unequal results, provided that they are proportional to aptitudes at the start. Existence of courses of study of unequal value. Inequality of treatment.	The fact that merit is not the only criterion for access to the most highly-regarded courses. Socio-cultural bias affecting guidance tests. Imperfections in the evaluations responsible for the fact that, although of equal competence, one pupil succeeds and another fails.	Objective and scientific detection of talents, and scientific methods of orientation. Equality of access to long courses of study, for children of equal aptitude from advantaged and disadvantaged backgrounds. A school made to measure, i.e. a varied system of options and courses of education adapted to the ability of students. Aid to gifted pupils from disadvantaged backgrounds (scholarships, etc.).
<b>C – Equality of treatment</b>			
The capacity of all to undertake basic learning, and therefore benefit from basic education.	The existence of natural talents, potential or aptitudes. Unequal results, on the condition that pupils were able to benefit from learning conditions of equivalent quality.	Unequal quality of teaching, responsible for unequal achievement. Elite schools, ghetto schools, streamed classes, explicit and implicit courses of study that engender unequal quality of education.	The Single-level or Comprehensive school, and particularly, the common core for lower secondary education.
<b>D – Equality of achievement or academic success</b>			
Potential for extended learning. Individual characteristics (cognitive or affective) can be modified. Differences in learning styles.	Differences in results beyond the essential skills.	The ideology of talents. Negative discrimination (including streamed classes, courses, elite schools and ghetto schools), i.e. all the situations where unequal quality of teaching amplifies the inequalities at the outset.	Equality of achievement for the essential skills. Positive discrimination, mastery learning, formative assessment, as well as all the support mechanisms aimed at reducing the initial inequalities.
<b>E – Equality of social fulfilment (social output)</b>			
Different individual, motivational and cultural characteristics, but without any hierarchy existing between them.	Differences in profile of the results.	The existence of a single standard for excellence. An “elite” culture and a “sub-culture”.	Individualized instruction.

## From equality to equity

While the set of equity indicators lets the debate open between these different understandings of equality, its main objective is to initiate a discussion about the equity of educational systems in a broader aspect. It is true that the “theories” presented here above –at least about equality of access or opportunities (B), about equality of treatment (C) and about equality of achievement or academic success (D) are limited in a double sense:

First, they are “local” theories about justice, which consider education as a final asset (except for the principle about equality of social fulfilment (E) ). The consequence of the distribution of education on social justice –what can be called external equity, by analogy with the

difference made by the economists between internal efficiency and external efficiency of education–, is not taken into account. For instance, discussions about equality of assets do not consider the nature of the “main skills” that are to be reached, those skills being linked to the skills required for adult life.

Secondly, they are “intuitionist” theories (in Rawls’ meaning, 1972) because they can rely on several principles of justice that are not organized into a hierarchy because they are not explained and, consequently, that are likely to contradict each other. For instance, the equality of treatment can be supported by the defenders of the equality of results who think that the first one will be sufficient to get the second one, as well as the defenders of the “principle of natural reward” who think that the reward (in this case, what is learnt) has to be proportionate to the effort (Trannoy, 1999).

A pessimistic approach of the situation would consist in considering it is not worth measuring inequalities in education since their consequences on really important inequalities (that affect adult life) are not known, or since the same inequalities will be considered as unfair by some and as legitimate by others.

Since the publication of *A Theory of Justice* by Rawls in 1972, a debate has been ongoing within political philosophy. Several general theories have been developed, in which it is possible to imagine justice in education while avoiding “local” and “intuitionist” approaches: for instance, Walzer’s (1997) theory of spheres of justice, Sen’s (1982, 1992) theory of capabilities, or theories of responsibility (Arneson (1989), Roemer (1996), among others), which require that rewards should be proportionate to “efforts” and, consequently, that inequalities of “talents”, for which individuals are not responsible, should be balanced by opposite inequalities of “resources”.

For our objective, what does matter is that none of these theories is universally recognized. The existence of several theories does not mean they invalidate each other, but rather leads to consider the issue of justice within a framework of the discussion they provoke.

Thus, a set of indicators is useful because it provides input to that fact and comparison debate. Comparisons are all the more important because an inequality, however the theories of justice do judge it, is inequitable only if it is avoidable (Whitehead, 1991). Furthermore, this last condition is the favourite argument of the defenders of non-taking action. However, it is not because no country succeeded to avoid an inequality that it is enough to prove this last one is unavoidable, it can just mean that none of those countries did what was needed to avoid that inequality. On the other hand, as long as a state did not succeed to reduce to the lowest level an inequality considered as inequitable by a theory of justice, this state will be blameworthy according to the principle of that theory.

The indicators presented here are intended to provide input to the debate on justice in education, by offering some elements of response to the following questions:

To what extent do individual educational inequalities have major social consequences for the individuals ? What is the importance of those inequalities ? Are they due mainly to the context, or rather to the process of the educational system ? Are they used to help the disadvantaged ?

What is the importance of educational inequalities between girls and boys or between groups of different social, economic or national origins ? To what extent are they due



to the societal context or rather due to the process of the educational system ? To what extent are they aggravated by the society or the labour market ?

To what extent does being below a minimum skill threshold have important consequences for the individuals in and outside the school context ? What is the proportion of individuals who find themselves below that threshold ? What proportion of each group is beneath that threshold ? Is the fact of being below the threshold due mainly to the socio-economic context or rather to the educational system itself ?

# Eight guiding principles for a set of indicators

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To devise the indicators successfully in a systematic and collegial way, the multi-disciplinary international team drew up a basic framework. This is what structured all the indicators which will be presented in the second part of this publication. The structure adopted has been modelled by examining existing literature which generated several guiding principles and determined the design and selection of the indicators.

## A first principle

### **Principle 1**

**The indicators must enable to discuss in the context of the various existing principles of justice, and not only fit one of them.**

In order to answer, as broadly as possible, the various questions that arose, without predetermining the answer according to a particular principle, it has been considered as essential to let the various tendencies take over the indicators, so that their vision of justice can be compared with the collected data.

The main approaches to justice applicable to education are, if the libertarian<sup>6</sup> and communitarian<sup>7</sup> principles are excluded :

- Utilitarianism, which judges the equity by the maximisation of the overall quantity of education passed on, or by the relevance of the meritocratic sorting process combined with an optimum definition of the various levels of education to be attained. In the initial analysis, this principle refers rather to an approach based on efficiency;
- Rawls' theory, which stipulates that, under control of certain liberties, the production of education should encourage the "fair equality of social opportunities" and that the other inequalities of education, in particular the inequalities of skills between the more and less educated, must be turned to the benefit of the most disadvantaged<sup>8</sup>.
- Walzer's theory of spheres of justice (1997), for which the criteria is that the inequalities in education must be independent from the inequalities observed in other spheres (economical, political, ...);
- The responsibility theory (Roemer, 1996, Fleurbaey, 1996) endeavours to combine several principles to imagine a fair allocation of resources between individuals defined by their "talent" – this word defines everything for which they are not responsible – and their effort – for which they are responsible (Fleurbaey, 1996).

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<sup>6</sup> These do not come under an approach using indicators, but only a juridical approach. Although libertarians could perhaps be interested in indicators about the degrees of liberty offered by educational systems.

<sup>7</sup> We shall not be dealing with communitarian theories either (Sandel, Taylor), which are presented and compared with liberal theories in Berten *et al.* (1997) and in Kymlicka (1999). They stipulate that equity can only be founded on more fundamental values than itself, those values that weld the community together, and therefore the definition of a just society may vary from one community to another, which probably invalidates attempts like ours.

<sup>8</sup> On the application of Rawls' *Theory of Justice* to education, see Meuret (1999). For a presentation of these theories in greater depth, see Benadusi (2001) and Meuret (2001a).

Trannoy (1999) applies it to education, proposing a combination of the principle of compensation (“Equal achievement for equal work”) and the principle of natural reward (“Equal resources for equal talent”) during the school career of a single individual.

- Sen’s theory (1982, 1992), which stipulates that individuals must have equal capabilities to achieve modes of “functioning” that they have reasons to enhance.

According to this first principle, the fields that would be covered had to be selected, and a joint method of collecting and processing the data had to be determined. The adopted procedure was structured by devising a two-dimensional framework in which the equity indicators would be incorporated. The first axis of the framework – the horizontal axis which structures it into columns – serves as the theoretical support for collection, analysis and presentation of the data. The second axis – the vertical axis that cuts the framework into rows – enables us to determine and structure the fields of research (Table 2, p.24).

## Structuring the framework into columns

Two guiding principles led to the organisation of the framework in columns.

### **Principle 2**

**The relevant educational inequalities for the majority of assets distributed in the context of educational systems may be grouped into three main families: the discrepancies between individuals, the inequalities between categories, and the proportion of individuals who find themselves below a minimum threshold.**

The contribution of Rawls, Walzer and Sen’s theories led to consider justice in education from three angles.

*1. The individual skill inequalities must not jeopardize the social cooperation.*

The first approach, which corresponds to the first column of the framework, is that of inequalities between individuals. But why should we be interested in inequalities between individuals?

It is important to be interested in them, first of all, with a political aim. Rawls (1987) is less in favour of a redistribution of a democrat social type than of a “owner democracy”, in which the inequalities of *primary* income are limited : the political equality and thus, the quality of the democratic process is better assured like that. If a too large inequality of wealth threatens the political right equality, a too large school skill inequality also threatens it. Furthermore, the fair equality of opportunities as well as a limited distance between the skills of the least and the best qualified are required conditions to enable everybody to feel oneself taking part to social life, on an equal basis, which is undoubtedly the final objective of the theory of Justice<sup>9</sup>.

If school must help to “make a society altogether”, it must not produce too large discrepancies between individuals. Rawls brings about also another argument: of the reached skill level, when compared with the others’, constitutes one of the bases of self-respect, then the rawlsian rules are to be applied, particularly the one asserting that fair education inequalities are those

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<sup>9</sup> « When the individuals trust the pleasure they can have when applying their own capacities, they are ready to appreciate the perfection of the others, particularly when the plurality of their excellences find a place in a form of life of which everyone does accept the objectives. » (1987)

that turn out to be necessary to maximise the self-respect (or education) of the individuals who have the least of it. So it appears that we may increase the level of the best ones, only if the level of the weakest ones increases still more, so as to reduce the difference.

On the other hand, it is needed to analyse the individual inequalities with an economic approach. OECD (2001) mentions in that perspective “the issues of reciprocal understanding and adjustment in the institutions” as a reason to limit the inequalities at school.

But is it possible to attribute to the school, and not to intelligence, effort or family background differences, the main responsibility for the production of individual skill inequalities? While this idea can seem exaggerated, it must be considered that school, from the lowest nursery level to the top of the system, increases a lot the inequalities produced by these three sources, favouring systematically the strongest rather than the weakest, through teachers’ least conscious and most daily behaviours, through the most ordinary and, so far, the least perceived aspects of the school life. School itself, through its present organisation, increases the inequalities of capacities between individuals, theoretically for the good of all.

One of the limits of that first approach is that a measure, on a common scale, of the skills of those who left the earliest and the latest the education system, is not easy to design. The used discrepancies are those observed at the end of compulsory education, at the age of 15. However, it seems that the skill differences measured at that age are not without external consequence: in the IEA surveys, the countries where the mathematics skill discrepancies are the largest are also the countries where wage inequalities are the most important (Bedart & Ferrall, 2003).

*2. The social membership of an individual must not handicap his/her school success.*

*(to be completed)* The second, which corresponds to the second column, is that of *inequalities between groups*. It illustrates the principle of equal opportunities and that of the independence of spheres.

*3. No student may leave the educative system while being below the minimum skill threshold, in order to have a decent life in the modern society.*

We can refer this threshold to the equality of “functionings” by Sen (1982, 1992) – particularly the one he defines as: “having self respect” – or to the “basic curriculum” that everyone must master, according to Walzer (1997). Being below certain skills thresholds is probably the educational situation that can have the most serious social consequences for the individual. Of course, the definition of the threshold and therefore of skills that are situated below and beyond it, may vary. Several documents from the European Commission refer to the “employability” of individuals by the productive machine. Several authors refer to minimum skills to participate in democratic life, and to assert one’s rights (Gutmann, 1999; Benadusi, 2001).

At this level, it is also necessary to take an interest in the presence of certain special groups below the threshold. Indeed, it is not irrelevant to observe that most individuals below a threshold belong to a same group, or that, on the other hand, they appear to share no common and intrinsic characteristics.

In the pilot study that was carried out<sup>10</sup>, 10 % of students questioned chose the first principle; 53 % the second principle and 37 % the third (indicator A.4.2). Therefore, these principles correspond well, to varying degrees, to criteria of justice found among students.

### **Principle 3**

**Among relevant categories of individuals, the most important are those from which the individual cannot escape.**

The bias adopted in the second column of the framework, the examination of inequalities between groups, led to determine the criteria to define and differentiate categories of individuals.

This choice is imperfect, because the concept of “what is important” is historically determined. Even the most generous souls of thirty-five years ago would not have seen any problem if inequalities between boys and girls did not appear in such a system. Actually, establishing relevant categories is more a matter for political or social movements than for administrators or philosophers themselves (Orfield, 2001). However, the authors hope that the devised system of indicators will be able to identify what is “causing problems” from the point of view of justice according to the shared conscience of our time. It is one of the reasons that made them undertake a survey on the student’s criteria of justice.

The priority categories must be, in the authors’ opinion, those to which the individual belongs whether he/she wants to or not. One might consider, for example, that geographical inequalities are less important than others are, to the extent that it is possible to leave an under-equipped region, whereas it is impossible to change social origins, nationality, gender<sup>11</sup> or to escape a disability from birth.

Actually, we calculated indicators for three categories of individuals, according to the socio-economic status, their nationality and their gender.

### **Structuring the framework into rows**

Once the three angles of approach have been determined for analysing the justice in education, it was necessary to make a selection of the areas of research that would not only enable several concepts of justice to exist side by side, in accordance with our first principle, but also, in accordance with the objective of the project, to compare different educational systems, particularly on the basis of the assets they produce.

### **Principle 4**

**Among the assets distributed by the educational system, we need to concentrate on those where fair distribution is more important for individuals or for the democratic life of the country.**

The assets distributed by the educational system are the immediate results of schooling (knowledge, attitudes, skills, qualifications), as well as its mediate results (social position, professional status, employability) and certain aspects of the educational process (length of

<sup>10</sup> For details about the European pilot survey on the feelings on justice at school, see the annex.

<sup>11</sup> A certain amount of attention needs to be paid to the overlaps between categories (girls and boys from minorities do not have the same behaviour, the same careers at school), and the fact that the assets that pose a problem may not be the same from one category to another. For example, it is difficult to claim today that girls are disadvantaged from the viewpoint of the duration of their studies, while they may be disadvantaged for certain courses of study or for certain aspects of the process.

schooling, public spending on schooling), as well as smaller assets, but whose repeated distribution has a high impact on shaping the pupils (punishments, reprimands, smiles, friends, etc.). The assets that form part of the process are less “final” than those of the first two categories, but they have the advantage of really being assets distributed by the system: skills, qualifications and even more so professional status are, in reality, the result of the use by individuals of services received from the educational system and not direct products from this system.

#### **Principle 5**

**It is important to measure not only the inequalities of the results of education – performance or careers, but also inequalities upstream of the education system and those that affect the teaching process itself.**

The objective is to reach a judgement on the equity of education systems, not only on the equity of the education situation in a given country. This comparative perspective leads to social or economic inequalities located upstream of the education system.

Therefore, we must consider both the social context within which the education systems function and on the other hand, the fairness of the processes that characterize that functioning. We know that the creation of educational inequalities mobilizes external and internal phenomena.

Sociology has improved our comprehension of external mechanisms, and proposes less deterministic theories these days, that are more open to the possibility of corrective action than thirty years ago (Benadusi, 2001; Duru-Bellat, 2002). However, it is clear that external factors have an influence. Shavit and Blossfeld (1993) concluded that the fall in educational inequality observed in a small number of countries (Sweden, Netherlands) is explained rather by a fall in social inequalities, or the greater security acquired by the poorest people in these countries, instead of by educational reforms. It is logical to think that the greater the inequalities in a country (in wealth, social capital, cultural capital), the more unequal are the resources that each person can devote to education, and the greater the mobilization of these resources by those who possess them, in order to ensure, via success at school, that their children will be wealthy. The measurement of certain dimensions of the context, located upstream of the educational systems, is therefore necessary to understand the educational inequalities and to pronounce judgement on the equity of education systems: if system A has the same educational inequalities as system B, while country A is much more inegalitarian than B, then one has to conclude that education system A is fairer than B. Its compensating effect is actually stronger.

However, we know that these external inequalities also act through internal inequalities. Some pupils (poor ones, foreigners, etc.) receive less attention from teachers than other pupils (Sirota, 1988). Another example: the later the branching point between short and long courses of study is situated in a school career, the later the differences in income will come into the cost/benefit calculation for individuals (Boudon, 1973). Furthermore, we know that certain purely internal inequalities have perceptible effects: pupils labelled as poor, those who have to repeat a year, whatever their social origin, receive less attention due to the effect of unequal expectations. We also know that poor and disadvantaged pupils – who are sometimes, but not always, the same – make less progress than other pupils during a period, less due to their initial handicap (the weak ones) or external handicap (disadvantaged), than due to the fact that they have poorer learning conditions than other pupils (Grisay, 1997). We also know that bringing together weaker pupils is not to their advantage (Slavin, 1987, 1990) or is harmful to

them (Vandenberghe *et al.*, 2001; Duru-Bellat, Mingat, 1997), which leads one to consider that the segregated feature of classes and schools in a school system will be an iniquitous factor.

However, while according to some theories, the conditions for the inequalities arising do not matter, for others – the responsibility theory, for example – they are fundamental. If inequalities between pupils can be explained by the fact that resources of lower quality have been given to young pupils with fewer “talents”, instead of seeking to overcome that weakness by allocating better quality resources, they are unjust. On the other hand, the inequalities are not unjust if they are due to differences in will on the part of pupils<sup>13</sup> – or, if they are very young, of their parents. So we also need to provide elements that help to answer the question: does the functioning of the education system play a compensatory role in relation to the inequalities that we inherit, or does it aggravate them?

#### **Principle 6**

**It is important to understand the injustices connected with school life, like the way pupils are treated by the institution, its employees or their classmates.**

While we should take an interest in the educational process, it is not only that inequalities in process lead to inequalities in the results of education; it is also that some of them are unfair as part of the pupils’ experience. Although the fact that some pupils are humiliated (Merle, 2002), or despised (Dubet, 1999), will have no impact on their school career, these pupils will still suffer, and will still be victims of iniquity. For a long time, the importance of the school experience was played down. If this is less the case today, that is not only because we are more aware of the role that it plays in the creation of learning inequalities (see above), it is also that it forms an essential element of the political judgement that users (parents, pupils) form of the equity of the system and, through that, about the institutions of their country. That is why we attempted to measure the injustice that affects this daily experience for pupils, by questioning a sample of eighth-grade pupils, as well as their teachers, via a pilot survey on the feeling of justice at school conducted in a sample of schools in the five partner countries. The results of this exploratory study should be taken with extreme caution. The indicators derived from this study are still experimental<sup>14</sup>.

#### **Principle 7**

**Because a fair education system is also a system that favours social fairness, the indicators must relate not only to educational inequalities, but also to the social and political effects of those inequalities.**

The equity of educational systems also depends on phenomena that are located upstream, if one accepts the idea that a fair educational system is not only a system that distributes education equitably, but also a system that distributes education in such a way that it makes society fairer.

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<sup>13</sup> This subject deserves to be developed, because this “personal will” can be altered by a realism that censures the most disadvantaged groups more: “Nobody in my family ever did well at school”, or “Workers don’t go to university”, etc. Other phenomena also interfere with what could be seen as personal aspirations: the sense of betrayal in relation to one’s group of origin, social pressure, absence of role models, strange or abstract character of certain disciplines,... The analysis of socio-professional expectations depending on which group they belong to would enable light to be shed on this subject.

<sup>14</sup> For more information about the coordination, design and administration of the study on the feeling of justice, we refer the reader to the technical annex.

The system of indicators explores the social effects of educational inequalities. That exploration can take two forms, individual or collective. The individual arrangement explores the social consequences, for an individual, of being at the top or bottom of the school hierarchy. The collective arrangement explores the effects on social justice of the allocation and use of resources that the education system places at society's disposal, in particular by the most educated people.

An example of the relevance of an exploration of the *individual effects* is as follows: one observes, comparing several countries, that educational equality is greater in those where credentialism is less pronounced, i.e. where the role of qualifications in access to employment is less marked (Duru-Bellat, 1998), as if it is possible to afford greater educational equality when it has no consequences on social inequality. However, if lower inequality of opportunities in education has the consequence that social reproduction uses other channels than education, the gains will be less than if it led to greater social mobility. Likewise, if inequalities in education between nationals and immigrants are particularly low, but the barriers to join the labour market mean that foreigners cannot find a job that matches their qualifications, the effect of the equity of the education system on social equity will be weakened accordingly.

The *collective effects* of educational inequalities may be illustrated in the following way, by drawing on the difference principle proposed by Rawls (1987): depending whether doctors in a country only treat the rich, or rich and poor alike, the spending allocated to training them will be unfair or could be fair. Depending on whether economic growth benefits the poorest or not, the spending on training of skilled workers, engineers, researchers, managers, bankers, corporate lawyers, who contribute to that growth, will have been more or less fair. Depending on whether the most educated people leave school with a feeling of solidarity with the poorest, or on the contrary with contempt and arrogance, depending on whether they devote more or less time, outside work, to activities in favour of these categories, the education system will have been more or less fair.

#### **Principle 8**

**The system of indicators must measure inequalities, but it must also identify the judgement of citizens about the equity of the current education system, and the criteria underlying that judgement.**

As we announced in the introduction, a special place must be kept for the judgement about educational equity expressed by the citizens or by the educational actors.

However powerful the social mechanisms that produce education inequalities are, they can only be exercised if the citizens tolerate the action, in other words, a majority of them consider them, if not as just, at least as insufficiently unjust to accept the cost of a political battle against these mechanisms, or if that majority of citizens is not so sure that they are unjust that they would start that battle. If equity in education is a political problem, of course it is important to know that judgement and the criteria on which it is based. Questioning citizens from European Union Member States was beyond our reach. On the other hand, we carried out a study on students and teachers from our five countries. This related not only to the justice with which pupils are treated, as we saw before, but also to the idea the people questioned have about a fair educational system – let's say based on their criteria of justice – and their judgement on the equity of the educational system in general.

Such a survey is not without difficulties. Questioning individuals about their criteria and feelings of justice may provide biased answers in three ways: the influence of the social environment may act on the criteria, and make comparisons difficult from one country to



another; ignorance of the possible may make some respondents find a situation just when it is not; ignorance of the fate of the others may bias, on given criteria, the comparison between them, and therefore the feeling of justice. So, the pupils of working-class establishments and their parents may find their conditions of education fair due to ignorance of what the conditions are in other schools.

It is difficult to deny that these biases may exist. However, they exist less than one might expect. For example, the *International Justice Project*, carried out in 1991-92 in thirteen countries, half of which were countries from the “West”, and half from the “East”, about sentiments and criteria of justice of adults, showed that individual merit was valued equally in both groups and that, according to Marshall, Swift, Routh and Burgoyne (1999), challenged the idea that the norms of justice of individuals depend on the social environment. Furthermore, Dubet (2001) highlighted a sort of systemic effect: when the educational system allows a few children of the poor to scale the heights of school achievement, leaving the others in lower-quality courses of study, it generated a greater impression of justice, and less resentment, whereas at present, children of the poor and the rich take the same course of study, and the inequality of social chances has actually been reduced between the two periods.

We do not claim that we will come up with a “real” measurement of injustice while researching into feelings of justice. It is rather a question of initiating a process between measuring inequalities, comparing them with theories of justice and to criteria of justice declared by the actors and their feelings of justice. It is really rather a matter of recognizing that the theories are uncertain, as proven by the debates between them, and that they cannot dispense from a comparison with feelings of justice, albeit not well founded on their part.

It is a matter of encouraging deliberation in which feelings of justice are enlightened by the measurement of inequalities and discussion about criteria of justice, and where the latter is enlightened in return by the other two<sup>15</sup>.

The theoretical framework of indicators of equity of education systems may be modelled now. Its vertical axis will be cut into a quaternary structure: context of inequalities in education; inequalities in the education process; inequalities in education (internal results); social and political effects of inequalities in education (external results). The horizontal axis of the framework will follow a ternary structure: inequalities between individuals; inequalities between categories (according to gender, socio-economic origin, nationality); individuals beneath a threshold of equity.

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<sup>15</sup> Actually, this movement is similar to that which, according to Rawls, serves to construct the theories themselves. Deduce the principles of justice – the three principles of his own theory, for example – from principles or a fundamental, abstract situation (in the case of his theory, that which creates the veil of ignorance), then compare those principles with our “well-considered feelings”. This is the movement that he describes as “reflexive equilibrium”. Considering the debates between theorists of fairness, we can see that they practice that reflexive equilibrium: the general form of the criticisms that they usually make is that the theory criticized is precisely a situation that cannot be considered unfair, or vice versa, that it finds a situation unfair that common sense tells us is fair. For example, Sugden (1993) analyses the reproach that Sen made of Rawls’ theory that it “presupposes a wish to live together in equality” and therefore cannot assert that even where this wish is absent, a government, in this case the Ethiopian Emperor during the famine of 1973, must feed its people if they do not have the vital minimum.

**Table 2.** *The theoretical framework of indicators on the equity of educational systems*

<i>A system of indicators on the equity of educational system</i>			
	<i>Inequalities between individuals</i>	<i>Inequalities between categories</i>	<i>Individuals / categories below the threshold of equity</i>
<b>A. Context of inequalities in education</b> A.1. Individual consequences of education A.2. Economic and social inequalities A.3. Cultural resources A.4. Aspirations and perceptions			
<b>B. Inequalities in the education process</b> B.1. Quantity of education received B.2. Quality of education received			
<b>C. Internal results– Inequalities in education</b> C.1. Skills C.2. Personal development C.3. School careers			
<b>D. External results – Social and political effects of inequalities in education</b> D.1. Education and social mobility D.2. Benefits of education for the disadvantaged D.3. Collective effects of inequalities			

Taking account of the available data, we operationalised the theoretical framework for devising equity indicators into twenty-nine indicators presented in the second part of this volume. Their chronological organization follows the vertical axis of the framework (context, process, internal results, external results), while the three dimensions of the horizontal axis can be felt in the comments and the graphs presented (inequalities between individuals, between categories and thresholds of equity).

Depending on the principle of justice which guides the reader, his/her reading of this framework will differ. A meritocrat will be attentive to inequalities between groups but not to inequalities between individuals. A Rawlsian will be more inclined to attach importance to the question of the social customs of the most highly educated. A libertarian will be shocked that one can even ask this question. Many more examples are possible.

However, this framework is rather intended to be read in the following way: the inequalities affecting the internal results and the process, will point out, on an equal scale, an iniquity in the education system, especially where:

1. their consequences on the future life of pupils are important (external results);
2. they must be allocated to the education system (process) rather than social inequalities themselves (social and cultural context);
3. they are used less to benefit the most disadvantaged, and they have a serious impact on the judgement by citizens or users relating to the justice of the

educational system and they convert into a loss of trust into institutions and reduced socio-political participation.

In principle, this line of reasoning can be put forward for each of the three criteria of justice (the three columns) of the framework. In principle, because some of the questions raised above correspond better to a criterion of justice than others. So that, when set out according to the criteria, the questions above could be re-formulated like this:

1. What is the importance of inequalities in the educational systems of the European Member States ?
2. What are the advantages related to education in the European Member States ?
3. Do European educational systems amplify or reduce contextual inequalities ?
4. To what extent do educational inequalities benefit the disadvantaged and encourage social mobility ?

The second part of this volume shows the indicators calculated for the 15 countries which constituted the European Union when this work was undertaken. The third part attempts to answer these four questions:

Let's hope this organisation and the data supplied encourage and contribute to the reflection about the equity of each of the European educational systems in particular, and about the equity of our shared values in general.



## **PART 2**

### **A Set of Indicators on the Equity of Educational Systems**

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This section includes the twenty-nine indicators devised with the view of judging the fairness of European educational systems.

Each indicator is presented on facing pages: the graphics and tables are found on the right-hand page, while the comments and technical notes are opposite, on the left-hand page.

At the bottom of the left-hand page, the coloured boxes indicate the EU States Members for which Equity Indicators have been built.

The indicators drawn from the *European pilot survey on sentiments of fairness at school* are distinguished from the other indicators by a coloured page background, due to their experimental nature (see annex).

In the upper right-hand corner, a letter and two numbers identify the indicators. The letter refers to the four main categories used to structure the vertical access of the matrix of indicators, organized as follows:

<b>A.</b>	<b>Context of inequalities in education</b>	
	<b>1. Individual consequences of education</b>	
	1. Economic advantages of education	34
	2. Social advantages of education	36
	<b>2. Economic and social inequalities</b>	
	1. Inequalities in income and poverty	38
	2. Economic security inequalities	40
	<b>3. Cultural resources</b>	
	1. Level of education of adults	42
	2. Cultural resources of 15 year-old students	44
	3. Cultural practices of 15 year-old students	46
	<b>4. Aspirations and perceptions</b>	
	1. Professional aspirations of 15 year-old students	48
	2. Students' criteria of fairness	50
	3. Students' general opinions about fairness	52
<b>B.</b>	<b>Inequalities in the education process</b>	
	<b>1. Quantity of education received</b>	
	1. Inequalities in schooling expectancy	54
	2. Inequalities in education spending	56
	<b>2. Quality of education received</b>	
	1. Perception of support from teachers according to 15 year-old students	58
	2. Perception of the disciplinary climate according to 15 year-old students	60
	3. Segregation	62
	4. Students' perception of being treated fairly	64
<b>C.</b>	<b>Inequalities in education</b>	
	<b>1. Skills</b>	
	1. Skill inequalities at the end of compulsory school	66
	2. Weakness and excellence at school	68
	<b>2. Personal development</b>	
	1. Civic knowledge of students	70
	<b>3. School careers</b>	
	1. Inequalities in school careers	72
<b>D.</b>	<b>Social and political effects of inequalities in education</b>	
	<b>1. Education and social mobility</b>	
	1. Occupational attainment by educational level	74
	2. Influence of social origin on occupational status	76
	<b>2. Benefits of education for the disadvantaged</b>	
	1. Contribution by the most educated to the most disadvantaged	78
	<b>3. Collective effects of inequalities</b>	
	1. Students' judgements on the equity of the educational system	80
	2. Students' expectations towards the educational system	82
	3. Students' feelings towards justice in the educational system	84
	4. Tolerance / intolerance	86
	5. Socio-political participation	88
	6. Trust in institutions	90

# Economic advantages of education

**The additional income earned by a tertiary education graduate compared with that of a person with qualification from primary education rises, on average, to 64% among men and to 45% among women. In terms of employment rate, the advantage for women with a tertiary education diploma compared with those who have only a qualification from primary education is over 100 %. For men, this advantage rises only to 25 %. Finally, on average, the financial return of an additional year of education rises to 7 % for men and to 6 % for women.**

The economic advantages of education are mainly of two kinds: higher pay levels (higher salary) and a higher employment rate (greater propensity to obtain employment and lesser risk of unemployment). Most of researches point out the first effect. However, a substantial proportion of the effects of qualifications obviously is reflected in terms of the status that those persons occupy in relation to the labour market, especially women.

The two dimensions (income and employment) are illustrated in the context of this indicator in Table 1, which is based on the data from the *Luxembourg Income Study*. We observe that, on average, the additional income earned by a tertiary education graduate compared with a person with qualifications from primary education only rises to 64 % among men and to 45 % among women.

Table 1 also gives the apparent effects of education on the probability of obtaining gainful employment (employment rate). This variable is particularly sensitive to the level of education, especially in the case of women. On average, among the countries examined, we observe that the advantage for women with a tertiary education diploma rises to over 100 %. Among men, the effect rises to only 25 %. As for the income aspect, there are great differences according to the country. But this time, the dividing line is intra-European: we observe that the effect of a tertiary diploma on female employment rates is quite simply massive in countries like Italy or the Netherlands, since the gap there is over 200 % between women with low qualifications (primary) and those who hold a higher education (tertiary).

It is also useful to refine the measurement of the individual consequences, in particular on pay, to take account of career seniority. Becker's theory of human capital (1964) indicates that individuals acquire skills and knowledge that can be exploited in the labour market essentially via two channels: education – our key preoccupation – and professional experience. Everything indicates that experience as such does indeed influence salary levels. It is only logical to extract from the measurement of the relationship between education and income the part which corresponds to professional experience. In practice, this boils down to calculating – for a given level of professional experience – the percentage of income growth corresponding to a unit increase in the number of years of education. Table 2 shows the results obtained for a group of EU countries, and for Norway and Switzerland, studied as part of the PURE project.

We can see that the return per additional year of education is generally of the order of 7 % for men and of 6 % for women. However, the situation varies quite widely depending on the country. In Ireland, Greece, the Netherlands, Portugal and France there is the greatest gender-related differential in return. It is virtually zero in Austria, in Finland and in Norway. We should point out that these differences in return between the genders prevail when professional experience is equivalent. The differences that are highlighted point towards discrimination between men and women, which is not due to the fact that women spend less time in employment due to childbirth.

## Sources:

*Luxembourg income study*,  
<http://www.lisproject.org>.

PURE (Public Funding and Private Return to Education,  
<http://www.etla.fi/PURE>)

Becker (1964, *Human Capital. A Theoretical and Empirical Analysis with Special Reference to Education*. Chicago University Press

The measurement of income corresponds to a person's total salary and income during the calendar year preceding the survey. It includes all amounts received by way of salary, bonus, 13<sup>th</sup> month, and other annual bonuses. It is generally exempt from employer's contributions to tax and social security, but gross of personal taxation and social security contributions (for Poland, the data corresponds to net salaries). The income under consideration relates to salaried employment. Norway and Sweden also include the income of the self-employed.

The employment rate corresponds to the ratio between people in paid employment and the total number of people of working age.

The return of education is estimated using the logarithm of gross hourly salary (AUT, GRE, ITA, NDL and ESP use the net salary failing other data). The value of the return ( $r$ ) is estimated in the following Mincer equation:  $\ln(y) = a + r \cdot S + b \cdot EXP + c \cdot EXP^2$  where  $S$  is the number of years of schooling completed, and  $EXP$  is the professional experience. The coefficient  $r$  (tab. 2) corresponds to the first derivative of  $\ln(y)$  relative to  $S$  represents the percentage income growth following an increase in the duration of education by 1 year. In effect,  $d\ln(y)/dS = (dy/y)/ds = r$



**Table 1. Employment rate and salary: graduates from higher education versus those with qualifications from primary education (25-59 year olds)**

Country	Year	Employment rate of graduates from primary education (%)		Employment rate of graduates from tertiary and primary education (%)		Ratio of graduates from tertiary and primary salaries (%)	
		Male	Female	Male	Female	Male	Female
GERMANY	1994	78	54	119	152	157	156
ITALY	1995	78	21	112	372	170	166
NETHERLANDS	1991	69	15	135	393	160	143
FINLAND	1995	72	66	130	138	175	173
SWEDEN	1992	91	81	106	118	155	141
UNITED KINGDOM	1995	70	60	128	135	172	196
NORWAY	1995	85	61	112	147	133	167
POLAND	1995	56	32	158	250	188	176
Mean		75	49	125	213	164	145

Source: Luxembourg Income Study

**Table 2. Rate of return for a year of education**

Country	Male	Female	Difference
DENMARK	6	6	1
GERMANY	8	7	1
GREECE	6	4	2
SPAIN	7	6	2
FRANCE	8	6	2
IRELAND	9	7	3
ITALY	6	5	2
NETHERLANDS	6	5	2
AUSTRIA	7	7	0
PORTUGAL	10	8	2
FINLAND	9	9	0
SWEDEN	4	3	1
UNITED KINGDOM	9	8	2
NORWAY	5	5	0
SWITZERLAND	9	8	1
Mean	7	6	1

Source : PURE (1995)

# Social advantages of education

The consequences of education on the professional status are greater in Spain, Portugal, Greece and Finland. They are weaker in the United Kingdom, Norway and Sweden.

On the other hand, in terms of protection against unemployment, the consequences of education are weak in Spain, Portugal and in Greece. It is particularly great in the United Kingdom, Sweden and Switzerland. In terms of consequences of parents' education on children's education, the advantage on the children's reading skills is the greatest in countries such as Denmark, the United Kingdom and Switzerland.

These indicators aim to understand the value of a successful school career via the measurement of advantages associated with it. The greater the advantages are, the more unfairness in the distribution of education becomes an issue. The indicator compares the possession of a desirable characteristic among those who have received higher education and those who have not.

Some effects are felt on *working life*. They are identified here by differences in prestige (1) or status (2) of the professions occupied, and then by the protection offered against unemployment. Although prestige and status are related concepts, the classification of the countries does not always coincide. As to the prestige of the first job occupied, the effect of education is particularly strong in Germany and Switzerland, and low in the United Kingdom. The effects of schooling on status are stronger in Latin countries (Spain, Portugal, and Greece) as well as in Finland, while they are less pronounced in the United Kingdom, Sweden, and Norway. As to protection against unemployment, Latin countries (Spain, Greece, Portugal and, to a lesser extent, Italy) where the effect of education is low, set themselves apart from the United Kingdom, Sweden and Switzerland, where it is particularly high.

Other effects of education have an impact on *private life*. They have been highlighted concerning health, marriage, independence, the probability of living in a nuclear family, as well as to skills acquired at school and the probability of access to continuing education, which may or may not be linked to a job. We only have international comparisons on the latter two aspects. The skills gap in written comprehension between people drawn from the two extremes of the school career is particularly pronounced in Ireland, Norway and Portugal, and low in the United Kingdom, Sweden and Switzerland.

Yet other effects relate to *children's education*: the children of more educated people appear to be in better health, do better at school, etc. Here we are comparing inequalities between children whose parents completed higher education and others, not only in terms of written comprehension skills, but also in other desirable characteristics: cultural practices and the quality of communication with parents. The influence of parents' education on cultural practices is particularly pronounced in the United Kingdom, Austria, and Germany and particularly low in Greece, Ireland, and Sweden. The link between the education received by parents and the quality of communication with their children is lower than the previous one. The countries where it is most pronounced are Spain, Portugal and Switzerland; those where it is lowest are Belgium, Finland, Greece, and Sweden. The advantage in the marks of pupils is highest in Denmark, the United Kingdom, and Switzerland, and lowest in Ireland, Portugal, Norway and Sweden.

By aggregating these various criteria into a summary (see below), it emerges that Switzerland, and then to a lesser extent Portugal are the countries where success at school has the greatest consequences from a social viewpoint, while it is of lesser importance in Norway and particularly in Sweden.

## Sources:

(1) Shavit, Y. and Müller, W. (1998). *From school to work*, Clarendon Press.

(2), (6), (7), (8) Calculations from PISA data.

(3) European social statistics, Labour Force Survey – Results 2000, detailed tables; Eurostat theme 3, pp. 182 and 183.

(4) OECD, 2002, *Literacy in the Information Age*.

(5) OECD, *Education at a Glance*, 2002.

The effects of education raised in the comments are only correlations between success at school and the possession of goods. However, even if the correlation comes from a third variable, the seriousness of consequences of possessing education or not still remains.

Aggregation derives from a simple algebraic sum of the number of times where the countries stand out in one direction or the other, applying a weighting coefficient of 3 to the indicators on status and unemployment, and without taking account of the results on prestige.

Table 1. Social advantages of schooling in higher education

Country	Consequences on professional life			Consequences on personal life		Consequences on children's education (15-year olds)		
	<i>Prestige</i>	<i>Status</i> (2000)	<i>Job</i> (2000)	<i>Reading skills</i>	<i>Continuing education</i> (1995-2000)	<i>Cultural practices</i> (2000)	<i>Communication with parents</i> (2000)	<i>Score for written comprehension</i> (2000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>BELGIUM</b>	-	145	74	119	5.2	0.4 (0.0)	0.1 (0.0)	2.6 (0.5)
<b>DENMARK</b>	-	141	63	118	2.1	0.4 (0.0)	0.4 (0.0)	9.4 (0.7)
<b>GERMANY</b>	2.6	135	73	123	3.8	0.6 (0.0)	0.4 (0.0)	5.4 (0.9)
<b>GREECE</b>	-	149	21	-	-	0.2 (0.0)	0.2 (0.0)	3.2 (0.6)
<b>SPAIN</b>	-	152	32	-	-	0.5 (0.0)	0.4 (0.0)	3.6 (0.4)
<b>FRANCE</b>	1.6	142	65	-	-	0.5 (0.1)	0.3 (0.0)	2.7 (0.5)
<b>IRELAND</b>	-	136	-	130	3.9	0.2 (0.0)	0.2 (0.0)	2.2 (0.8)
<b>ITALY</b>	1.9	147	35	-	5.8	0.5 (0.1)	0.3 (0.0)	2.6 (0.6)
<b>LUXEMBURG</b>	-	148	-	-	-	0.6 (0.1)	0.2 (0.0)	2.5 (0.5)
<b>NETHERLANDS</b>	2.2	136	53	120	2.2	0.5 (0.1)	0.3 (0.0)	-
<b>AUSTRIA</b>	-	141	74	-	-	0.6 (0.1)	0.3 (0.0)	4.3 (0.6)
<b>PORTUGAL</b>	-	152	21	127	6.9	0.5 (0.1)	0.4 (0.0)	1.1 (0.6)
<b>FINLAND</b>	-	149	62	120	2.1	0.4 (0.1)	0.2 (0.0)	3.7 (0.5)
<b>SWEDEN</b>	1.9	132	76	117	1.9	0.3 (0.0)	0.2 (0.0)	1.1 (0.9)
<b>UNITED KINGDOM</b>	1.1	131	82	117	2.3	0.6 (0.1)	0.3 (0.0)	5.5 (0.7)
<b>SWITZERLAND</b>	2.6	136	75	115	2.8	0.5 (0.1)	0.4 (0.0)	2.0 (0.8)
<b>NORWAY</b>	-	133	32	125	2.6	0.3 (0.0)	0.2 (0.0)	2.0 (0.8)

- (1) Gap between the skills of professions occupied by individuals at the two extremes of the scale of qualifications.
- (2) Socio economic index of professional status (ISEI index) of parents who completed a course of higher education (ISCED 5,6)\*100/socio-economic index of professional status of the other parents (simple average of values obtained by fathers and mothers).
- (3) Unemployment rate of individuals from 25 to 49 years who left school before the second stage of secondary education – unemployment rate of individuals from 25 to 49 years who completed higher education successfully)\*100/(unemployment rate of individuals from 25 to 49 years who left school before the second stage of secondary education).
- (4) Average score of 20-25 year-olds who completed higher education\* 100/average score of 20-25 year-olds who did not reach the second stage of secondary education.
- (5) Rate of participation of 25-65 year-olds in continuing education activities whether linked to a job or not: value for individuals who have completed higher education / value for individuals who left school before the second stage of secondary education
- (6) Deviation of the PISA index of cultural activities depending on whether both parents received higher education (ISCED 5-6) or not, measured in proportion to the standard deviation of the distribution of the index for parents who did not both receive higher education. Standard errors in parentheses.
- (7) Deviation of an index of parent-child communication depending on whether both parents received higher education (ISCED 5-6) or not, measured in proportion of the standard deviation of the distribution of the index for parents who did not both receive higher education.
- (8) Increase in the score for written comprehension for an additional year of education for the parents.

All the indexes increase with the advantages that are received from education. They are described in detail in the methodological annex

# Inequalities in income and poverty

On average, in all the countries of the European Union combined, 9.87 % of children are living below the poverty threshold, although there are large differences depending on the country. At the extremes, we find Italy (20.2 %) and the United Kingdom (15.4 %), and on the other hand, Norway (3.9 %), Finland (2.8 %), and Sweden (2.6 %). If we take an interest in fairness as inequality in family wealth according to the socio-economic profile, we observe that the most inequitable countries are in the North of Europe (Sweden, Norway, and Denmark) and the countries in the South appear to be the most

The concept of poverty refers to the fact of not reaching an “indispensable minimum” to function and live in society. This concept can itself be understood in two ways. First of all, as an absolute level of resources, i.e. a “basket” of goods and services that are considered essential in order to escape from a situation of poverty. Secondly, one may consider relative poverty. That approach has been adopted here. Poverty corresponds to a new situation where people have less than a certain percentage of the mean disposable income, i.e. the level that divides the population into two groups of equal size. The relative poverty line in this case is set at 50 % of the mean income.

Graphic 1 uses the data from the *Luxembourg Income Study*. It indicates, country by country, the percentage of children (individuals of less than 18 years of age) living in households where disposable income is lower than the poverty line. That is a contextual measurement that it is important to take into account when we discuss the capability of an educational system to reduce the inequalities. Graphic 1 reveals that on average, all countries combined, 9.87 % of children live below the poverty line, but with great differences depending on the country. At the extremes, we find the USA (22.4 %), Italy (20.2 %) and the United Kingdom (15.4 %) and furthermore, Norway (3.9 %), Finland (2.8 %) and Sweden (2.6 %).

Tables 1 and 2 use the PISA data. Table 1 contains the measurement of inequality based on a standard deviation of the measurement of family wealth. We can see that inequalities of family wealth are particularly strong in Portugal and Luxembourg, by comparison with Finland and Denmark. Table 2 shows the discrepancies in family wealth according to the socio-economic profile (strong-weak) and the nationality of the parents (nationals – foreigners) expressed as a percentage of a standard deviation. If countries and regions are ranked according to the “socio-economic profile” aspect, one can see that the least inequitable countries are situated in the North of Europe: Sweden, Norway, and Denmark. On the contrary, the most inequitable countries are situated in the South: Spain, Portugal. Still in Table 2, the second dimension, the nationality of parents, has not a positive correlation with the previous dimension. Furthermore, no unambiguous tendency seems to show up. Of course, there are deviations that are sometimes significant, but may be in the opposite direction, depending on the country. Portugal seems to have a situation where the family wealth of youngsters of 15 years of age of foreign origin is higher than that of nationals. For other countries like Denmark, Sweden, or Austria, the deviation is in the “expected” direction: nationals are richer than immigrants are.

Table 3 highlights the existing deviations in family wealth between the most disadvantaged 10 % and the average corresponding to the remaining 90 %. When these deviations are expressed in absolute terms (i.e. without taking account of the degree of dispersion inherent in the country of origin), it appears that the situation is most satisfactory in Austria, Finland, France and Denmark. At the other extreme, we find countries like Luxembourg, and Portugal.

## Sources:

Luxembourg income study  
(<http://www.lisproject.org>).

PISA 2000. <http://www1.oecd.org/els/PISA/>

The concept of income used by the Luxembourg Income Study is that of disposable income, i.e.

+ Gross wages and salaries + Farm self-employment income + Non-farm self-employment income [= Total Earnings EARNING]

+ Cash property income [= Factor Income] + Private pensions + Public sector pensions [= PENSION]  
= Market Income

+ Social Retirement benefits + Child or family allowances + Unemployment compensation + Sick pay + Accident pay + Disability pay + Maternity pay V22 + Military/vet/war benefits + Other social insurance [=SOCI] + Means-tested cash benefits + Near-cash benefits [= MEANSI] + Alimony or Child Support + Other regular private income [= PRIVATI] + Other cash income

= Total Gross Income GI

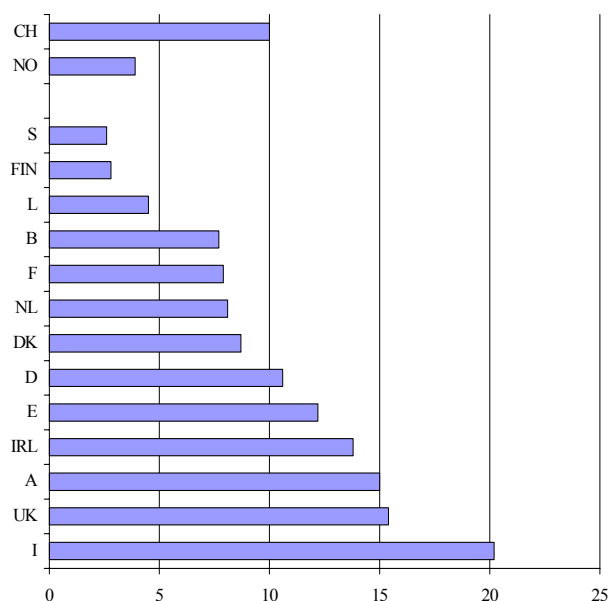
- Mandatory contributions for self-employed - Mandatory employee contribution

= PAYROLL

- Income tax

= Disposable Income

**Graphic 1. Percentage of children living in households living below the poverty line**



Source: Luxembourg Income Study

**Table 1. Inequality of family wealth measured by standard deviation (wealth index)**

Country	Standard deviation average in the 3 domains
BELGIUM	0,78
DENMARK	0,76
GERMANY	0,85
GREECE	0,85
SPAIN	0,83
FRANCE	0,75
IRELAND	0,84
ITALY	0,79
LUXEMBURG	0,90
NETHERLANDS*	0,68
AUSTRIA	0,78
PORTUGAL	0,98
FINLAND	0,71
SWEDEN	0,82
UNITED KINGDOM	0,84
SWITZERLAND	0,83
NORWAY	0,78

Source: PISA (2000)

It deals with the average of the standard deviation of the three fields : lecture, mathematics and sciences

**Table 2. Inequality of family wealth according to socio-economic profile and the nationality of the parents**

Country	Weak/strong gap of socio-economical profiles	Nationals-foreigners gap	Standard deviation
BELGIUM	0.69	0.04	0.78
DENMARK	0.56	0.51	0.76
GERMANY	0.69	0.48	0.85
GREECE	0.83	0.09	0.85
SPAIN	1.01	-0.06	0.83
FRANCE	0.76	0.25	0.75
IRELAND	0.75	0.03	0.84
ITALY	0.90	0.09	0.79
LUXEMBURG	0.89	0.44	0.90
NETHERLANDS*	0.53	0.20	0.68
AUSTRIA	0.56	0.44	0.78
PORTUGAL	1.31	-0.22	0.98
FINLAND	0.68	0.46	0.71
SWEDEN	0.44	0.50	0.82
UNITED KINGDOM	0.73	0.16	0.84
SWITZERLAND	0.59	0.13	0.83
NORWAY	0.49	0.36	0.78
Correlation Ratio between socio-economical profil and nationality		-0.70	

A weak socio-economic profile corresponds to an index below the 1st quartile of distribution (the weakest 25 %). A strong profile corresponds to an index higher than the 4<sup>th</sup> quartile of distribution (the strongest 75 %). The data presented corresponds each time to the average of the values specific to each of the three subjects shown in the PISA (maths, reading and science).

**Table 3. Deviation between the poorest 10 % and the richest 90 % of pupils in terms of family wealth**

Country	Absolute deviations mean	Relative deviations mean	Standard deviation
BELGIUM	-1.46	-1.87	0.78
DENMARK	-1.37	-1.80	0.76
GERMANY	-1.57	-1.84	0.85
GREECE	-1.51	-1.78	0.85
SPAIN	-1.47	-1.77	0.83
FRANCE	-1.43	-1.90	0.75
IRELAND	-1.64	-1.96	0.84
ITALY	-1.42	-1.81	0.79
LUXEMBURG	-1.75	-1.94	0.90
NETHERLANDS*	-1.25	-1.83	0.68
AUSTRIA	-1.35	-1.73	0.78
PORTUGAL	-1.89	-1.93	0.98
FINLAND	-1.36	-1.91	0.71
SWEDEN	-1.62	-1.98	0.82
UNITED KINGDOM	-1.5	-1.79	0.84
SWITZERLAND	-1.44	-1.75	0.83
NORWAY	-1.46	-1.88	0.78

Source : PISA 2000

Relative deviations corresponding to absolute deviations in relation to the standard deviation

\* For this country, the rate of response is too low to guarantee good comparability.

# Economic security inequalities

**For the year 2000, the average unemployment rate (ILO) in the European Union reaches 8 % for the total population. However, it still exceeds 10 to 14 % in some cases (France, Italy, Finland, Greece, and Spain). It seems that the women, the populations presenting a weak training level, the younger generations and the foreigners are more harshly affected than other categories since their unemployment rates sometimes largely exceed 20 %. Similar disproportions have been found between EU Member States according to the proportion of long-term unemployed (over 12 months) .**

Partly due to school education and the level of education achieved, the possession of a stable, paid job is a decisive factor of the well-being and the socio-economic security of all citizens and of all the EU Member States. The public authorities in the Member States have been working actively to promote employment for several decades. The battle against unemployment and the increase in employment rates are crucial objectives for the current and future development of the European Union.

Nevertheless, serious disparities remain between and among the Member States. In some cases, these disparities place a large number of individuals in excessively precarious and inequitable situations compared with others. Since the security and economic status of parents, and therefore their children, is a factor that can strongly influence the progress of their schooling in general, the need to emphasize these disparities appears to be elementary.

A certain gender inequality, to the detriment of women, is also present in the majority of the EU Member States (Graphic 1) and, while the rate of male unemployment is sometimes slightly higher than the female unemployment rate (Ireland, Austria, Sweden, and the United Kingdom), the inequality between men and women on this point is particularly pronounced in Belgium, France, and Italy, but especially in Greece and Spain, where it exceeds 10 percentage points. Therefore, from a general viewpoint, dissimilarities appear in the average unemployment rate (ILO) in the various EU Member States, since this is lower than 3 % in Luxembourg and the Netherlands, while it is above 10 % in France, Italy, Finland, in Greece and over all Spain.

The unemployment rate linked to the level of education (Graphic 2) shows the influence of studies on employment since, excepted in Greece and Portugal, people with an upper secondary diploma or, even better, a tertiary education diploma, present a broadly lower unemployment rate than the others. Consequently, unemployment rate will be all the higher in the populations with lower education levels.

The younger generations of workers (15-24 years) are, without exception, more severely affected than their elders (Graphic 3), except in Germany and Austria. In several countries and even in some of those where the average unemployment rate (ILO) is not particularly high, the difference is particularly blatant. The Netherlands is alone among the EU Member States with an unemployment rate among 15-24 year-olds below 6 %. On the other hand, that rate exceeds 25 % in Finland, Greece, Italy, and Spain.

The situations in terms of unemployment linked to the nationality (Graphic 4) are neither equitable since foreigners present unemployment rates much higher than national populations. This is particularly true for the foreigners not coming from a member state of the European Union, over all in Belgium, France, Finland and Sweden, where their unemployment rate exceeds largely 20 %.

The duration and type of unemployment are also important. We know how much a prolonged period of unbroken unemployment can have negative effects both on the economic security of a household and on the probability of finding another job quickly. Starting out from the principle that the effects of such a situation are far from being positive on children's schooling, those children where one or both parents are living in a situation of long-term unemployment (over 12 months) could be more disadvantaged. In some countries, the proportion of long-term unemployed is lower than or just reaches 30 % (Denmark, Luxembourg, the Netherlands, the United Kingdom, and Finland) ; whereas in other countries, it exceeds 55 % (Greece, Italy and especially Belgium and Sweden).

## Sources:

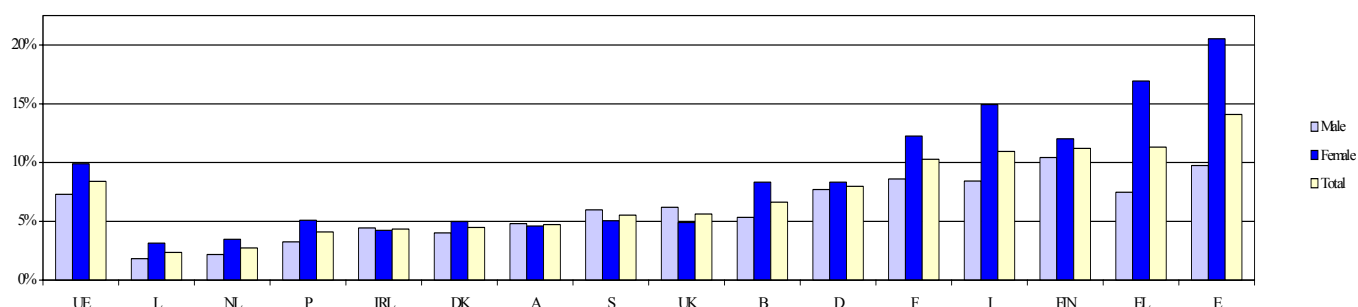
European social statistics: Results of the Labour Force Survey 200, Eurostat, 2001.

Current international recommendations on labour statistics, ILO, 2000

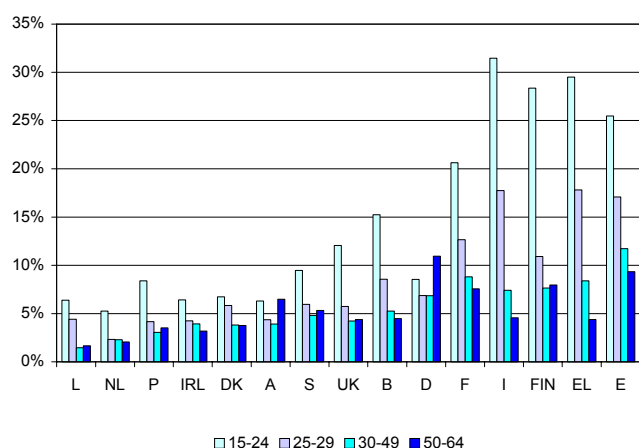
Standard international classification of education (ISCED - 97), UNESCO, 1997

The data presented comes from the "Labour Force Survey 2000" carried out jointly by the Statistical Office of the European Communities (EUROSTAT) and the national statistical institutes of the EU Member States. This survey is based on the recommendations of the International Labour Organisation (ILO). Unemployed people as defined by the ILO, known as "non-working people of working age" cover any persons having reached 15 years of age and are not in paid employment, but are available to start working within two weeks, and are actively seeking employment. In this sense, one has to bear in mind that the concept of unemployment defined in these terms does not always allow particular aspects of the situation of each country to be taken into consideration: the age limit for compulsory education, development of part-time jobs, degree of job insecurity, etc.

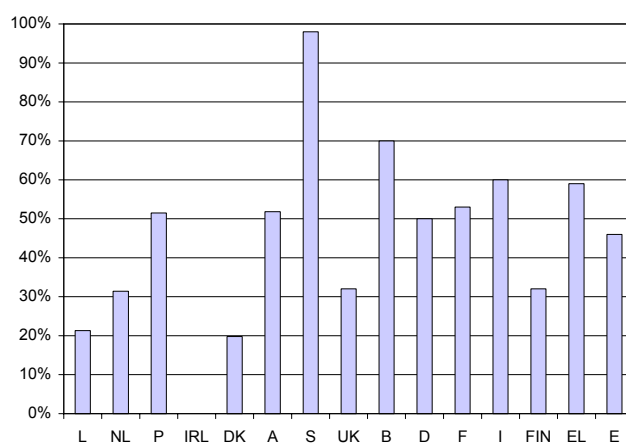


**Graph 1. Unemployment rate (ILO, 15-64 year olds) (2000)**

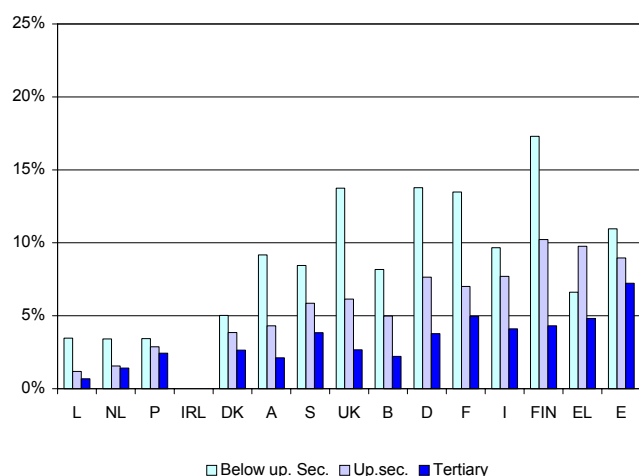
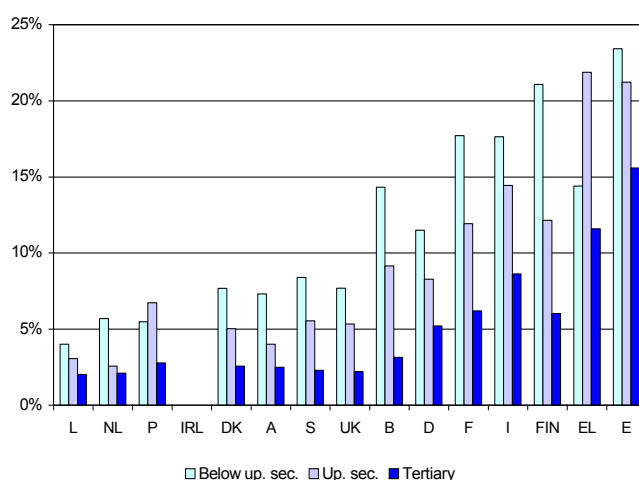
The countries are classified in increasing order of their respective average rates of unemployment

**Graph 2. Unemployment rate (ILO), per age group (2000)**

Graph 2 shows the rate of unemployment (ILO) per age group for the year 2000. We observe that it is particularly among the youngest population groups (15-29 year olds) that we encounter the highest rates.

**Graph 3. Proportion of long-term unemployment (ILO) among the unemployed aged 25 to 49 years (2000)**

Graph 3 shows among the unemployed in the 25-49 year age bracket for the year 2000, those who have been unemployed long-term (over 12 months).

**Graph 4. Level of male unemployment (ILO), according to the level of education (2000)****Graph 5. Level of female unemployment (ILO) according to the level of education (2000)**

Graphs 4 and 5 show the unemployment rate (ILO) for the year 2000 broken down by gender and by the highest level of education achieved by each individual. Apart from Greece, and to a lesser extent Portugal, these rates are higher among less-qualified and female populations.

# Level of education of the adult population

While, on average, slightly over 40 % of the adult population of the European Union has not yet completed secondary education, this rate sometimes exceeds 50 %, or even 60 % in some countries (Spain, Portugal and Italy). Nevertheless, these rates are falling all the time as younger generations (25-34 and 35-44 years of age) reach, on average, far higher levels of education than their elders). In terms of differences between genders, there are still, on average, fewer women than men who obtain at least an education completing the second cycle of secondary education. While that inequality is still significant in certain countries, it is far less pronounced in

The social well-being and economic prosperity of a country are partly connected with the instruction and level of education of its population. Depending on which country we consider, the level of education may differ very markedly, thereby demonstrating substantial discrepancies. Nevertheless, in addition to the average level of “human capital” of a nation, the breakdown of the whole population between the various levels of education should also be studied. This allows not only the degree of effectiveness of an educational system to be identified, but also its degree of fairness. With this aim, the indicator compares the level of education of the total population and that of the working population of each of the countries under consideration, while breaking down the data by gender and age.

In eight of the EU Member States (Germany, Denmark, Sweden, Austria, Finland, France, the United Kingdom and the Netherlands), over 60 % of the total population have at least completed the second cycle of secondary education (Graphic 1). This reference level (ISCED-97, level 3) usually brings together the final years of secondary education in the EU Member States: it frequently starts at around 15 or 16 years of age, is rarely compulsory, and can be general, technical or professional. Most of the time, it is an indispensable stepping-stone to tertiary (higher) education. It can be also observed that the situation is better when only the working population is considered.

The proportion of persons who have completed at least the second cycle of secondary education exceeded 80 % in Germany, Denmark, Sweden and The United Kingdom but the highest level in Spain is 35 % and 21 % in Portugal (Graphic 1).

Overall, we note that there is a very substantial disparity on this criterion between Southern European countries (Portugal, Spain, Italy, and Greece), the Nordic countries (Denmark, Sweden, and Finland), and the Germanic countries (Germany and Austria), with the other EU Member States in an average bracket.

So, it appears clearly that countries like Italy, Spain and Portugal are not very “effective” on the criterion of average education of the adult population and that they also show a greater homogeneity than the Nordic and Germanic countries, where the diversity in the breakdown of levels of education attained by the population is much greater. In this respect, Finland’s example is particularly interesting: less than 30 % of the adult population of this country has a level of education below the second cycle of secondary education. On the other hand, another 30 % have received tertiary (higher) education, and the remaining 40 % are situated between these two extremes, since they only completed the second cycle of secondary education successfully. One can suppose that in such a case, heterogeneous family contexts will have a greater influence on the schooling of pupils than in more homogeneous situations as they appear in Spain or Portugal.

A gender inequality still exists, since in 11 of the EU Member States, the proportion of persons from 25 to 64 years of age who have not at least completed the second cycle of secondary education is much higher among women than among men (Graphic 2). In Austria, the United Kingdom, Germany, and Luxembourg, this disparity attains or even greatly exceeds 10 %.

If we compare the level of education of young generations (25-34 and 35-44 year-olds) to that of older populations (45-54 and 55-64 year-olds) (Graphic 3), we observe that the proportion of people who have not attained the level of the second cycle of secondary education is falling very clearly in all the EU Member States and particularly in Germany, Finland, Belgium, Greece, and Spain.

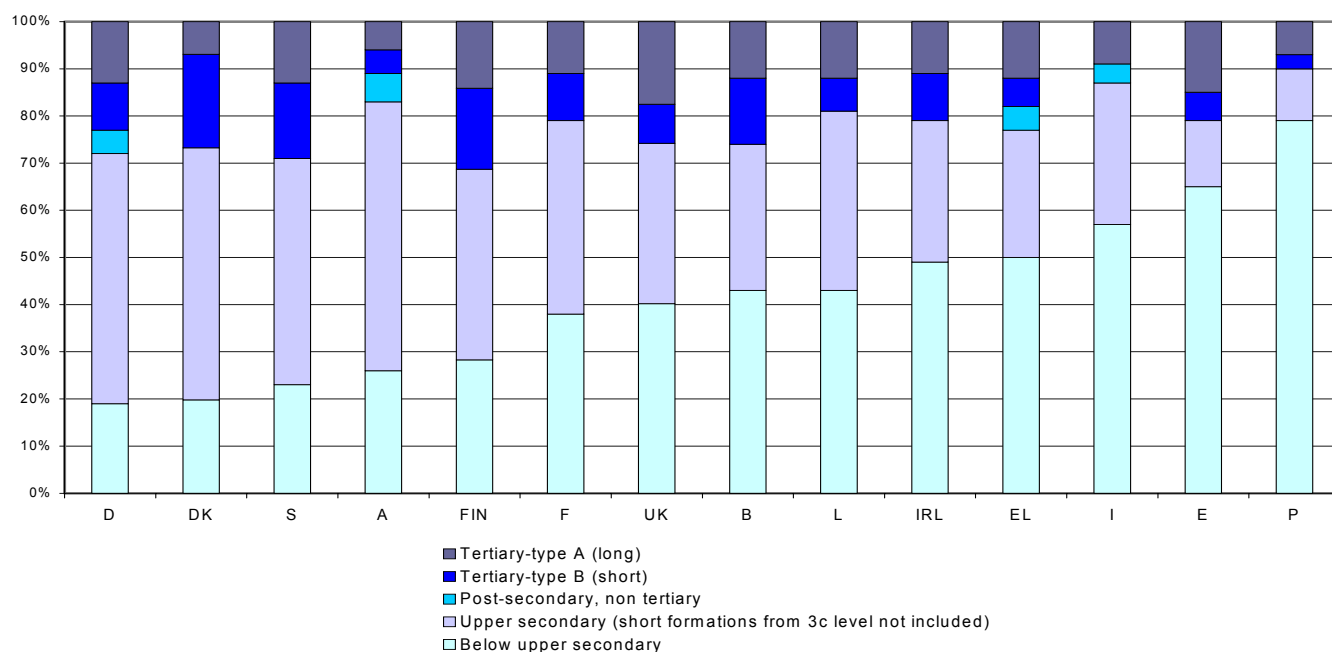
## Sources:

Education at a Glance, the OECD indicators, OECD, 2000. Nomenclature of education systems, user guide to ISCED-97 in the OECD countries, OECD, 1999.

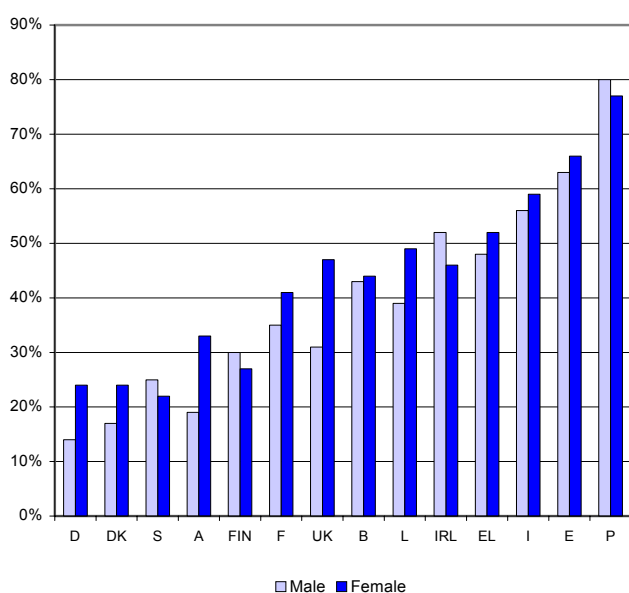
The data presented come from OECD databases and EUROSTAT. They were compiled from various national surveys. Graphics 1 and 2: 2001 is the year of reference, but for Belgium, the Netherlands, Austria and Norway (2000). Graphic 3: then year of reference is 1999, but for Ireland, Austria and Norway (1998).

The profiles of levels of education used are drawn from the new standard international classification of types of education (ISCED-97) and the equity threshold adopted in that indicator is the completion of the second cycle of secondary education, or levels “3A”, “3B” and “long 3C” of ISCED-97. However, in some countries (France, the Netherlands and the United Kingdom) a proportion of the training in secondary education does not meet the minimum criteria corresponding to long courses of education of level 3 in ISCED-97. On this basis, it is not uncommon that the figures obtained during national surveys are somewhat higher than the data finally adopted in this indicator.

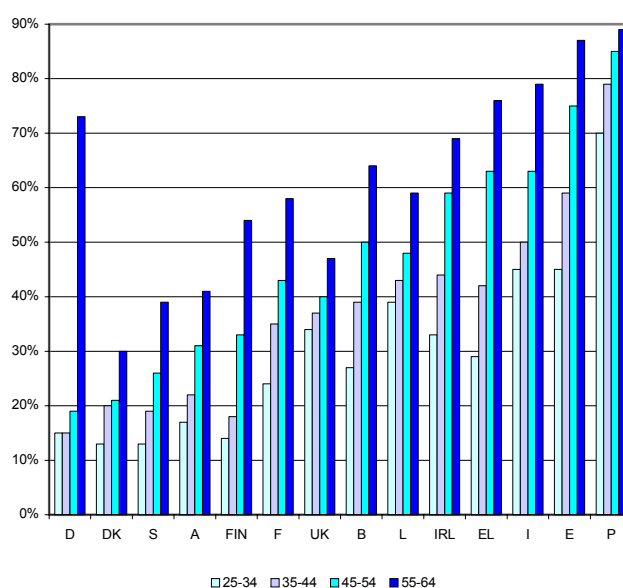


**Graphic 1. Level of education of the population (1999)**

Graph 1 shows, for the year 1999, the breakdown of the population (25-64 years) of 14 EU Member States according to the highest level of education attained (defined according to ISCED-97). The countries are classified in decreasing order according to the proportion of their population having reached a level of education at least equal to the second cycle of secondary education. Therefore, we observe that in Germany, 81 % of the population of 25-64 years of age have reached at least this level, while the figure is only 21 % in Portugal. Based on comparable criteria, 31 % of the Finnish population has reached a tertiary level of education (types A and/or B) compared with only 9 % in Italy, 10 % in Portugal, and 11 % in Austria.

**Graphic 2. Population not having attained at least education in the second cycle of secondary education, by gender (1999)**

Graph 2 shows, for the year 1999, a gender breakdown of the population not having attained at least the second cycle of secondary education (ISCED-97, level 3). With four exceptions (Sweden, Finland, Ireland, and Portugal), women in the European Union attain (at least) this level less frequently.

**Graphic 3. Population not having attained at least education of the second cycle of secondary education, by age group (1999)**

Graph 3 presents, for the year 1999, a breakdown by age group of the population not having attained at least the second cycle of secondary education (ISCED-97, level 3). Although the phenomenon appears to be generally slowing down, this rate has continued to decline in all the EU Member States from generation to generation.

# Cultural resources of 15 year-old students

**This indicator enables the classical cultural resources possessed by 15 year-old students to be evaluated. In almost all of the European Union Member States, girls state that they possess more goods of a cultural character than boys do. One can see a form of sensitivity to this form of heritage. Students from the least privileged social backgrounds and those whose parents are born abroad have less of these sorts of goods than their classmates. The weakest students are also those who state that they have the fewest resources connected with the classical cultural heritage at home. It seems that none of the European educational systems is able to overcome this type of disadvantage connected with the**

To identify the cultural context in which pupils live, we used the statements by 15 year-old students about the goods of a cultural character possessed in their household. A “cultural possessions” index was established as part of the PISA programme. That index refers to “classical” culture, in the sense that it concerns the presence in the students’ home of goods like books of poetry, literature or works of art.

The average value of the index, for all of the EU Member States (-0.05) is slightly lower than that of all OECD countries (0). In the Benelux countries, Denmark, and Ireland, the average values of the index are lower than the European average, whereas they are higher in Italy, Spain, and Finland. The student’s answers are more dispersed than the European average in the United Kingdom and in Luxembourg, while the dispersion of responses is less pronounced in Greece, Italy, and the Netherlands.

If we compare the student’s responses broken down by gender (Graphic 1), we observe that, in all of the EU Member States except Denmark and Sweden, boys state significantly less than girls that they have goods of a cultural character at home. This observation draws attention to the caution that is required with this type of data that are not corroborated by external observations. It is rather unlikely that families where there are girls are systematically better equipped than those where there are boys (especially as, if we look at “non-cultural” resources, like mobile phones, computers or television sets, we see that boys state that they have more possessions than girls, in all the EU Member States). One might put forward the hypothesis that these differences reflect lesser attention by boys to goods of a cultural character, or illustrate the bias of desirability that may affect the student’s answers in this type of survey: girls could be more inclined to provide responses corresponding to their representation of the cultural possessions that it is desirable to have at home.

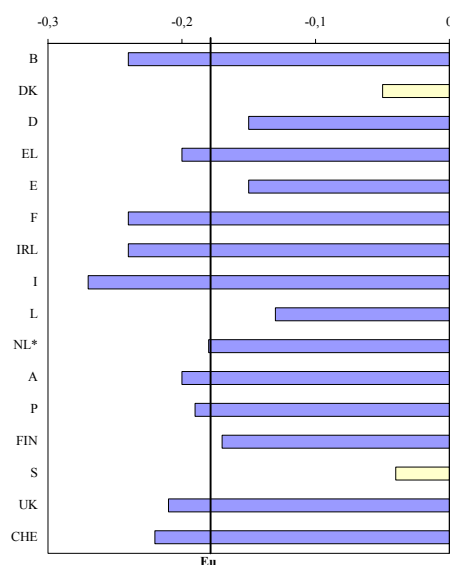
The responses by students drawn from the least privileged backgrounds (Graphic 2) and those of students with parents born abroad (Graphic 3) were also analysed. In both cases, it seems that the interest group possesses fewer goods of a cultural character than the other groups under consideration. So, in all the EU Member States, 25 % of pupils whose parents work in the professions which rate lowest on the scale of prestige of professions used (Ganzeboom, 1992), declare that they have significantly fewer cultural possessions than other students do. Likewise for pupils whose parents are born abroad, except in France, the United Kingdom, Ireland, and Portugal, where the differences are insignificant.

Finally, in all the countries observed, the students with the poorest reading performance (below literacy level 2 on the PISA combined scale) declare that they have significantly fewer literary works or works of art at home than pupils who performed better. So it seems that students who do not benefit from a family environment with certain goods connected with a form of classical culture are penalized, at least with regard to reading skills, in the various European educational systems (Graphic 4).

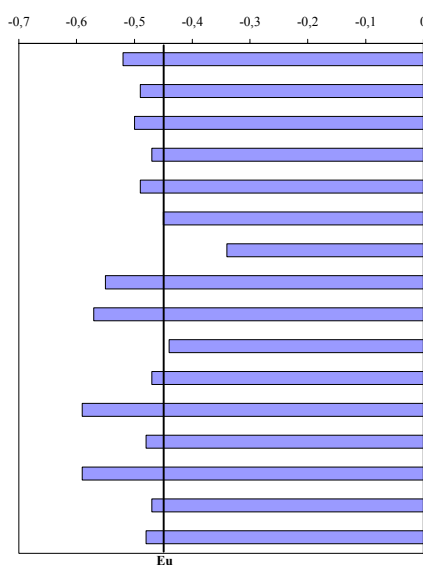
Sources:  
PISA 2000 database  
<http://www.oecd.org/els/PISA>

The classical cultural heritage index is based on the responses of pupils of 15 years of age to questions relating to the presence at home of works of classical literature, books of poetry and works of art. The average value of the index has been set at 0.00 for all the OECD countries. The standard deviation is 1.00. For this index, negative values indicate a situation less favourable than the average in all the OECD countries. For the method of calculation (“effect size”) and the definition of interest groups, please refer to the technical note for the indicator “professional aspirations of 15 year-old students”, in Context, A.4.1.

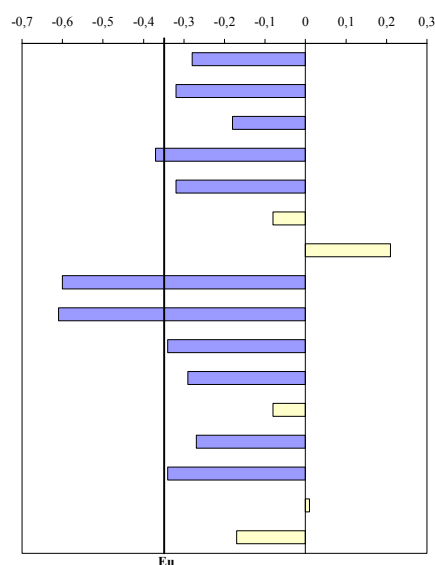
**Graphic 1. Cultural resources.**  
Index for boys compared with that for girls



**Graphic 2. Cultural resources.**  
Index for students whose parents have less prestigious professions compared with that for other students

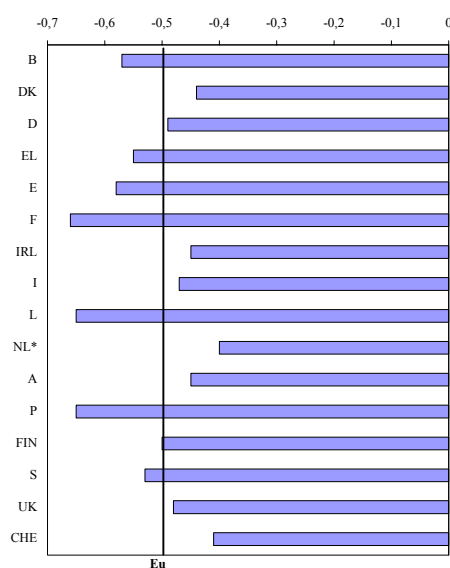


**Graphic 3. Cultural resources.**  
Index for students with parents born abroad compared with that for other students



Values below zero indicate that interest groups (boys, students whose parents have less prestigious professions, students whose parents are born abroad) declare that they have fewer resources of a cultural character than other students do.

**Graph 4. Cultural resources.**  
Index for students below the reading skills threshold compared with that for other students



Values below zero indicate that students with the poorest performance in the reading test (below literacy level 2) declare that they have fewer resources of a cultural character than other students do.

\* For this country, the rate of response is too low to guarantee good comparability.

The countries marked in blue are those for which there are significant differences ( $p=0.05$ ) between the categories of student compared.

For each graphic, the vertical line indicates the value of the effect size, for the EU Member States. An unweighted average was calculated (each of the EU Member States has the same weight).

# Cultural practices of 15 year-old students

Two indices were used to survey the cultural practices of 15 year-old students. On one hand, an index of “cultural” communication by students with their parents, and on the other hand, on the cultural activities of young people of 15 years of age. For both indices, significantly more negative responses are observed concerning cultural practices among boys, among pupils drawn from less privileged socio-professional circles, and among students with the

In PISA, several indices enable the cultural practices of 15 year-old students to be understood. The index of “cultural communication with parents” reflects the intensity of the discussions between parents and children on current affairs or books or films, whereas the index of “cultural activities” indicates the frequency with which students say that they have attended cultural events, like an opera or a play. Therefore, it is “classical” culture that is at issue here.

Concerning cultural activities, the value of the index for all the European Union Member States (-0.02) is slightly lower than the average of the OECD countries. For the EU, the lowest values are observed in the Netherlands and France, and the highest in Austria, Denmark, and Greece. The average dispersion of the student’s responses is slightly less than that of all the OECD countries (0.97). It is tighter in Greece, Ireland, and Denmark (0.90), and greater in Austria and Luxembourg (>1.00).

The cultural communication index with parents for the EU, is also slightly below (-0.01) the international average, but is particularly low in Belgium and the Netherlands, whereas it is above the international mean in France and Italy. The dispersion of the EU Member States is lower than that of the OECD countries. The answers of French, Greek, and Spanish students are less dispersed than the average, while those of the Luxembourgers, Belgians, and Dutch diverge more.

If we compare students on the basis of individual characteristics, we can see that, in the EU, boys are significantly different from girls (with the difference favouring the girls), while for communication with parents and for activities connected with classical culture (Graphics 1 and 4). The same applies in all EU Member States (and the differences are significant everywhere), if one compares the quarter of pupils whose parents occupy the least prestigious professions with all the other pupils (Graphics 2 and 5).

For students whose parents were born abroad (Graphics 3 and 6), the situation shows greater contrasts between countries. For the cultural communication index, in the majority of the EU Member States, their responses do not diverge significantly from those of pupils at least one of whose parents is born in the country of the test. In Finland and Sweden, the “non-natives” declare that they have more communication with their parents, and have more cultural activities than other students (significant differences), while in France, Spain, Italy, and Switzerland, the opposite situation applies. With regard to the index of cultural activities, the differences are significant in 10 EU Member States. They are in favour of the “non-natives” in Finland, Sweden, the United Kingdom, and Italy, and in favour of the “natives” in Austria, Belgium, Germany, France, Greece, and Luxembourg.

Finally, if we focus on students below the reading skills threshold (pupils who have not reached literacy level 2 on the PISA combined scale), we note that they declare less intense cultural practices than better-performing pupils (the difference is significant in all the EU Member States and Switzerland for both indices) (Graphics 7 and 8).

The cultural communication with parents index is based on responses by PISA students concerning the frequency with which their parents (or guardians) “discuss political or social issues with them”, “discuss books, films or television programmes with them”, and “listen to classical music with them”.

The index of activities relating to classical culture is based on responses by pupils concerning the frequency with which the pupils went out in the year preceding the test to “visit a museum or art gallery”, “attend an opera, a ballet or a classical symphony concert” and “watch live theatre”.

The mean of the two indices was set to 0.00 for all the OECD countries. The standard deviation is 1.00. The negative values of the index indicate a less favourable situation than the average, in all OECD countries.

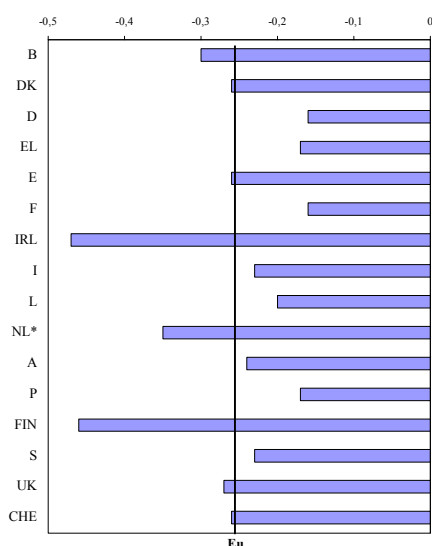
For the calculation method (“effect size”) and the definition of interest groups, please refer to the technical note of the indicator “professional aspirations of 15 year-old students”, in Context, A.4.1.

## Sources:

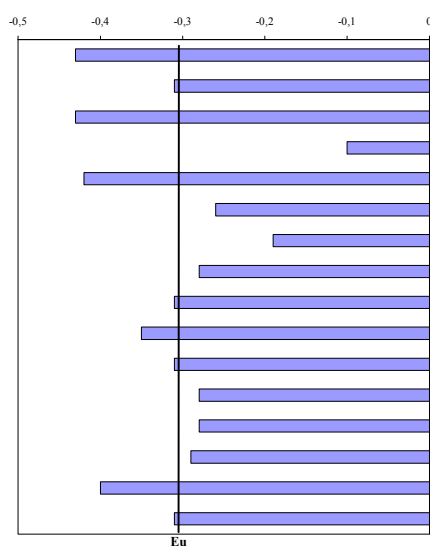
PISA 2000 database.

<http://www.oecd.org/els/PISA>

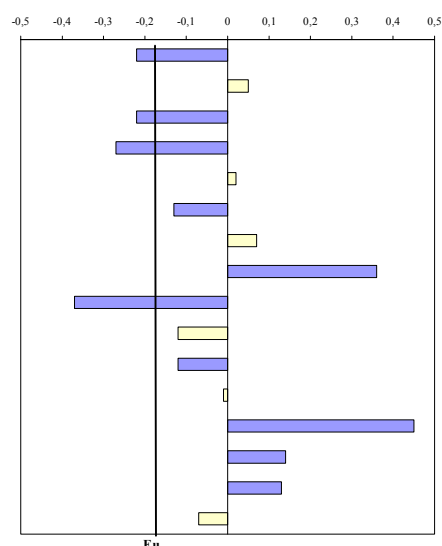
**Graphic 1. Cultural activities.**  
Index for boys  
compared with that for girls



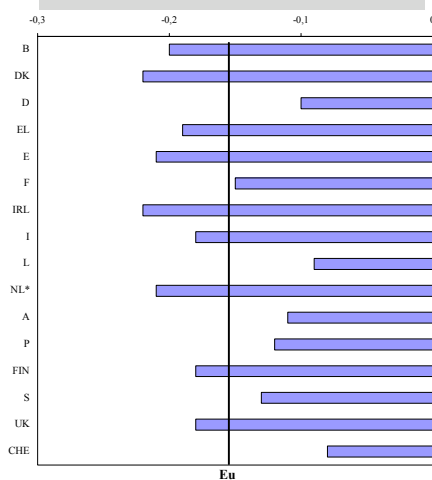
**Graphic 2. Cultural activities.**  
Index for students whose parents have  
less prestigious professions compared  
with that for other students



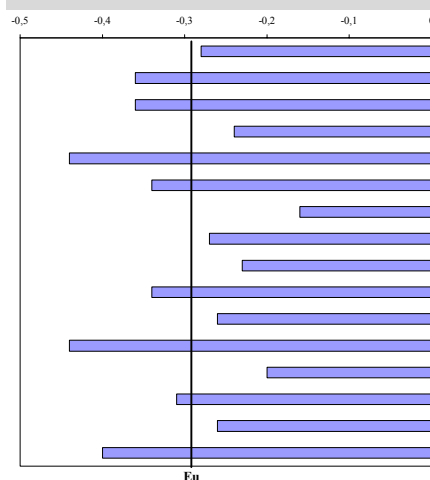
**Graphic 3. Cultural activities.**  
Index for students whose parents have  
born abroad compared with that of  
other students



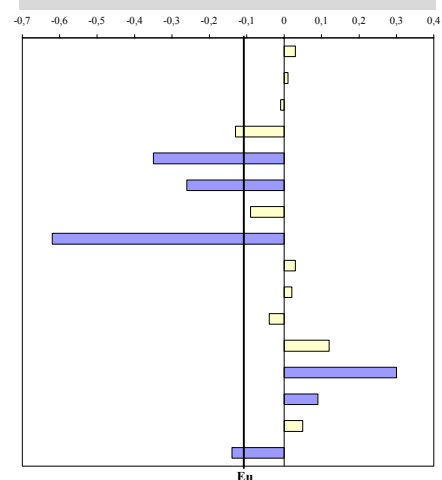
**Graphic 4. Cultural communication.**  
Index for boys compare with that for girls



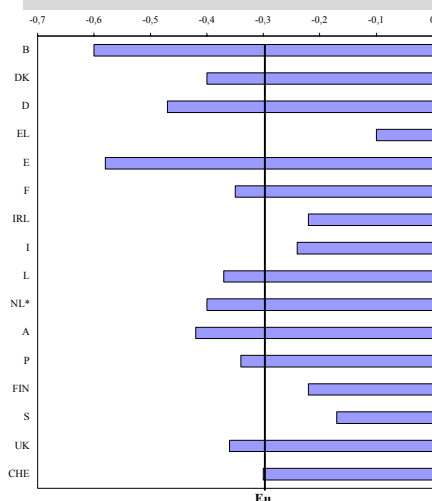
**Graphic 5. Cultural communication.**  
Index for students whose parents have  
less prestigious professions compared  
with that for other students



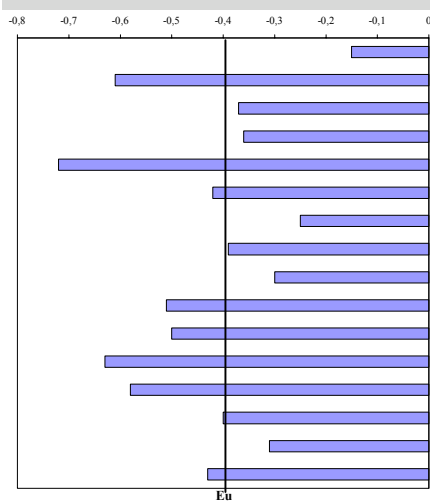
**Graphic 6. Cultural communication.**  
Index for students whose parents were  
born abroad compared with that of  
other students



**Graphic 7. Cultural activities.**  
Index for students  
below the reading skills threshold compared  
with that of other students



**Graphic 8. Cultural communication. In-**  
**index for**  
students below the reading skills thresh-  
old compared with that for other students



\* For this country, the rate of response is too

The countries marked in blue are those for which there are significant differences ( $p=0.05$ ) between the categories of student compared.

For each graphic, the vertical line indicates the value of the effect size, for the countries of the European Union. An unweighted average was calculated (each of the EU Member States has the same weight).

Values below zero indicate that the interest groups state that they have fewer cultural practices than other students do.

# Professional aspirations of 15 year-old students

**This indicator analyses the professional aspirations of 15 year-old students by gender, and socio-professional origin, the nationality of their parents and their reading performance. Students whose parents work in the least prestigious professions and those who have very poor reading skills have significantly more modest ambitions than their classmates do from all the countries of the European Union. It seems that, for these students, the incentives to embark on the more prestigious school careers, or simply to continue their**

The family and socio-economic environment in which pupils evolve are connected, to a greater or lesser extent, within the various educational systems, to the school performance of students (OECD, 2001). It seems likely that these factors also have an influence on the professional aspirations of pupils. In this case, we looked at the link between the socio-professional level of parents and the profession that young people of 15 years of age are considering entering. The indicator presented considers the professional aspirations of students, together with their social origin, their gender, their national origin, and their reading performance. It gives a measure of freedom or constraints with which 15 year-old students see their future, depending on their parents' situation. It is in that capacity that we consider it one of the incentives that can encourage a more or less intensive commitment by the pupils to their school career that will enable them to realize their professional objectives.

The professions that 15 year-olds declared that they wanted to carry out in the future were coded on a scale from 0 to 90, with the values at the bottom end of the scale being reserved for the least prestigious professions (Ganzeboom, 1992). Latin countries are characterised by higher than average aspirations, and the Germanic countries (Austria, Germany, Switzerland, the Netherlands, and Luxembourg) by lower socio-professional aspirations. The dispersion of professional aspirations within each country differs little.

In all the European Union Member States, except the United Kingdom, boys are significantly different from girls (Graphic 1). In general, boys envisage carrying out less prestigious professions than girls, except in Luxembourg and the Netherlands, where the opposite tendency is observed. One could put forward the hypothesis that, being less successful at school than their female classmates, or more rapidly guided into less prestigious courses of study when education is organized in this way, boys aged 15 have fewer professional ambitions than girls.

The effect of social origin on professional expectations is very pronounced for all the EU Member States (Graphic 2). If one separates the students into four groups of equal number, depending on their parent's profession, we observe significant differences between the responses from students in the least disadvantaged group and those of the other three groups considered as a whole. The former have ambitions that are more modest on the international scale of professions, unless the latter have already contributed to forming their professional ambitions. Furthermore, one can make exactly the same observations if one compares the responses of the students with the poorest reading skills (below literacy level 2 on the PISA combined scale) with the answers of the students who performed best in the PISA test (Graphic 4).

On the other hand, differences relating to the parent's place of birth are less pronounced (Graphic 3). In ten EU Member States, one cannot establish significant differences depending on this criterion. In Switzerland and in Italy, students whose parents were born abroad tend to have lower professional expectations than their classmates with at least one parent born in the country where they are going to school, while in France, Luxembourg, Portugal, the United Kingdom, Sweden, and Denmark, students whose parents are born abroad are generally considering more prestigious professions than their classmates.

The differences between the interest groups were calculated according to the method that relates the deviation observed between the average for the interest group (in this case, boys, students whose parents were born abroad, the weakest students and students from modest socio-professional backgrounds) and the average of the reference group (girls, students with at least one parent born in the country of the test, parents of average or high social standing, students above literacy level 1) to the dispersion of the scores of other students ("effect size"). A positive value indicates an advantage for the interest group. A zero value indicates that there is no difference between the two groups.

To distinguish national origin, two categories are taken into account: a distinction is made between students both of whose parents are born abroad and all the other pupils.

Concerning students' achievement, we compared the responses from students below or equal to level 1 on the PISA combined literacy scale with the responses of the other pupils.

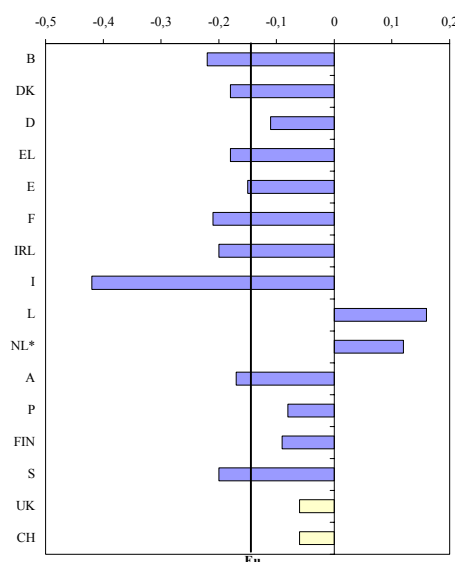
For socio-professional origin, we compared the responses of the lower quartile to the responses of the other three quartiles.

## Sources:

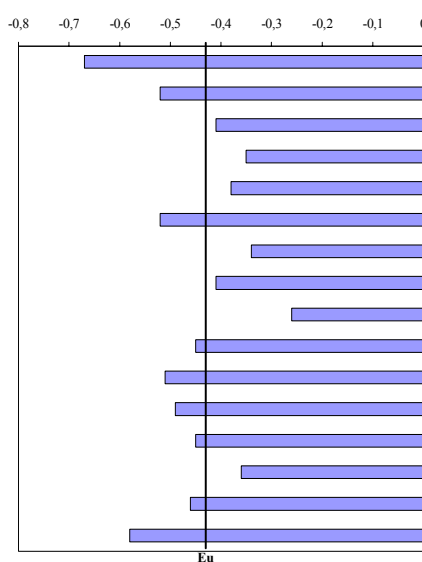
PISA 2000 database

<http://www.oecd.org/els/PISA>

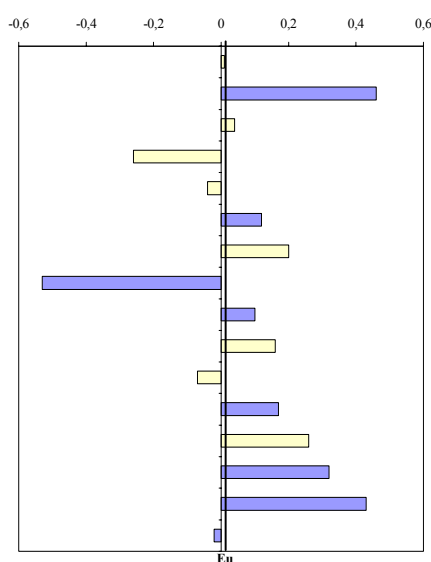
**Graphic 1. Professional aspirations of boys compared with those of girls**



**Graphic 2. Professional aspirations of students whose parents work in the least prestigious professions compared with other students**

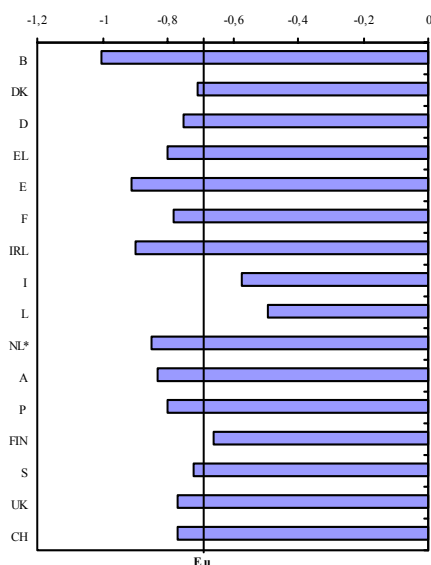


**Graphic 3. Professional aspirations of students whose parents are born abroad compared with those of other students**



Values below zero indicate that the interest groups (boys, students whose parents have the least prestigious professions, students whose parents were born abroad) have lower professional expectations than other students do.

**Graphic 4. Professional aspirations of students below the reading skills threshold compared with students who perform better.**



Values below zero indicate that the students who performed worst in the reading test (below literacy level 2) have lower professional aspirations than other students do.

\* For this country, the response level is too low to guarantee good comparability.

Countries shown in blue are those for which there are significant differences ( $p = 0.05$ ) between the categories of student compared.

For each graphic, the vertical line indicates the value of the effect size, for the EU Member States. A non-weighted average was calculated (each country has the same weight).



# Students' criteria of justice

**This indicator reveals pupils' opinions about what a fair schooling system would be like. It concerns both how teachers should allocate their care and attention, and how pupils should be treated. The patterns for primary and secondary schools are very similar. There is almost no support for the notion that the most able pupils should receive the most attention from teachers. Most pupils would prefer a system of equity in which all students receive the same amount of attention in class, and in which their chances of success are not affected by their**

Students were asked to give their opinions about what features ought to characterise an equitable school. This indicator outlines criteria for equity and justice based on the students' estimation of how they should be treated by their teachers in school, as well as what constitutes acceptable academic outcomes at the end of compulsory schooling.

The results suggest that the education setting, whether primary or secondary, makes little difference to the students' estimation of what constitutes fair treatment of pupils by their teachers (the figures in Table 1a and 1b correlate at around 0.85). In both sectors, a clear majority of students felt that teachers should give equal attention to all pupils, and this was felt slightly more strongly by female pupils, and particularly strongly by the British students. In addition, in the other countries there was considerable support for the idea that more attention should be given to the least able pupils, and this was particularly marked among pupils who reported achieving low marks. There was almost no support among pupils from any of the countries for the notion that able students should receive the most attention in class (Table 1a).

Students were also asked to determine the features of a fair school by considering the treatment of pupils by teachers and the allocation of marks. Here the responses were evenly distributed between countries and between groups (Table 2a). However, the Spanish students especially reported that the most important criteria for equity was a school which would award marks reflecting the amount of work put in by a pupil, whereas the British students especially felt that all pupils ought to be treated the same way in class. There is less overall agreement to the question on treating all pupils the same way in class (Table 2a) compared with the similar questions in Table 1. However, in the question in Table 2a, students have to make a selection from four options. So while treating all pupils in the same way might be important, it may not be as important as giving pupils marks which reflect their efforts.

In addition, the respondents were asked to describe an equitable system according to the opportunities pupils should have to succeed academically. Students in all groups were most concerned that schools provide children with equal chances of success, regardless of their family background, and this was especially marked among female pupils (Table 2b). However, Italian students generally attached a greater importance to the need for students to leave school with good basic knowledge and skills. Interestingly, relatively few students reported feeling that the achievement gap ought to be narrow at the end of compulsory schooling – that is, they were apparently happy that an equitable system would eventually discriminate between high and low achievers.

Tables 1 and 2 show the percentage of students who chose each statement that most corresponds to their opinion. The Tables show the responses for all students, plus those for students from the higher and lower occupational groups, both sexes, non-native students (those who state that they were born outside the country of the test), as well as for those who feel that their marks in school are low.

Data provided by a survey among 13-14 year old pupils from five European countries: Belgium (French Community), Spain (Madrid), France (Paris), Italy (Rome), and the United Kingdom (Wales), between November and December 2002.

In the United Kingdom and Italian samples, there were relatively few students who stated that they were born outside the test country (2.3 % for United Kingdom and 5.0 % for Italy). The results for this category should be treated with caution.

There was a relatively high proportion of students who report that they receive low marks in school in Spain (22.9 % of the sample) and a low number in the United Kingdom (2.7 % of the sample). It is important to remember that the students themselves were asked to provide this estimate; it was not based on actual performance data.

In order to determine the occupational category, the 10 categories coded in the questionnaire were amalgamated into 2. The higher occupational status was used in this analysis.

## Sources:

European pilot survey about feelings of justice at school. Questionnaire for pupil.

\* Data on non-native pupils are not available for France.

\*\* Data on social category are not available for Italy.



Table 1. Desired equity in teacher attention

	Area/City	Higher social group	Lower social group	Boys	Girls	Non-natives pupils	Pupils with low marks	All pupils
<b>a. For a primary school to be fair, its teachers must give</b>								
the same attention to all pupils.	French Com.	50.2	50.1	48.0	53.1	48.1	31.3	50.0
	Madrid	66.2	72.4	66.9	69.1	77.9	58.0	68.1
	Paris*	54.8	56.2	49.3	58.3	-	46.3	53.8
	Rome**	-	-	47.4	50.9	53.6	44.8	48.8
	Wales	85.7	86.6	84.2	88.8	76.5	72.2	86.6
more attention to the most able pupils.	French Com.	0.6	0.6	0.8	0.4	2.8	4.0	0.8
	Madrid	1.5	3.4	2.6	1.4	4.4	4.2	2.0
	Paris*	0.7	2.9	1.4	0.8	-	0	1.1
	Rome**	-	-	0.9	0.4	0	1.1	0.6
	Wales	1.1	2.5	2.4	0.7	0	11.1	1.5
more attention to the least able pupils.	French Com.	49.2	49.3	51.1	46.5	49.1	64.6	49.2
	Madrid	32.3	24.2	30.5	29.5	17.7	37.8	29.8
	Paris*	44.5	41.0	49.3	40.9	-	53.7	45.1
	Rome**	-	-	51.7	48.7	46.4	54.0	50.6
	Wales	13.2	10.9	13.4	10.5	23.5	16.7	11.9
<b>b. For a secondary school to be fair, its teachers must give</b>								
the same attention to all pupils.	French Com.	54.8	53.4	53.3	56.0	55.0	29.7	54.4
	Madrid	63.5	68.5	63.8	66.6	68.1	49.6	65.0
	Paris*	58.1	67.0	56.9	60.4	-	51.3	58.6
	Rome**	-	-	52.0	53.8	38.7	44.4	52.6
	Wales	79.9	80.6	76.7	84.7	61.1	55.6	80.8
more attention to the most able pupils.	French Com.	1.7	0.3	2.1	0.8	3.6	2.0	1.7
	Madrid	2.7	5.9	4.6	2.5	8.0	5.0	3.6
	Paris*	2.4	3.9	4.9	1.0	-	3.8	3.0
	Rome**	-	-	1.5	1.0	3.2	3.3	1.2
	Wales	4.6	9.2	8.8	4.5	11.1	22.2	6.4
more attention to the least able pupils.	French Com.	43.4	46.3	44.6	43.2	41.4	68.3	43.9
	Madrid	33.7	25.6	31.5	30.8	23.9	45.4	31.4
	Paris*	39.5	29.1	38.2	38.5	-	45.0	38.4
	Rome**	-	-	46.5	45.1	58.1	52.2	46.2
	Wales	15.5	10.2	14.4	10.7	27.8	22.2	12.8

Table 2. Desired equity in the treatment of pupils

	Area/City	Higher social group	Lower social group	Boys	Girls	Non-natives pupils	Pupils with low marks	All pupils
<b>a. In your opinion, a school is fair if...</b>								
all the pupils are treated in the same way in class.	French Com.	29.3	33.5	28.9	31.6	24.3	30.6	30.2
	Madrid	22.5	32.6	27.2	23.4	25.2	33.8	25.4
	Paris*	26.9	34.3	30.2	26.9	-	30.1	28.5
	Rome**	-	-	31.7	35.7	43.3	34.5	33.2
	Wales	42.6	54.6	45.2	48.6	33.3	44.4	46.6
the marks the pupils receive reflect the quality of their work.	French Com.	20.4	19.7	19.1	20.9	11.7	13.3	20.0
	Madrid	10.6	10.1	9.4	11.2	10.4	9.6	10.3
	Paris*	17.5	18.1	17.5	17.0	-	19.3	17.4
	Rome**	-	-	27.0	18.6	30.0	19.0	23.0
	Wales	11.4	7.3	11.2	9.1	5.6	11.1	10.0
all the pupils are respected by the teachers.	French Com.	21.8	21.1	21.2	22.3	32.4	34.7	21.8
	Madrid	13.3	13.4	13.5	13.4	13.0	16.3	13.2
	Paris*	21.5	21.0	17.5	23.9	-	16.9	21.0
	Rome**	-	-	10.8	15.0	10.0	8.3	12.7
	Wales	23.7	17.1	18.4	22.4	27.8	0	21.2
the marks the pupils receive reflect the amount of effort they have put in.	French Com.	28.5	25.6	30.7	25.2	31.5	21.4	28.1
	Madrid	53.6	44.0	49.9	51.9	51.3	40.4	51.1
	Paris*	34.0	26.7	34.8	32.2	-	33.7	33.2
	Rome**	-	-	30.5	30.7	16.7	38.1	31.1
	Wales	22.3	21.0	25.1	19.9	33.3	44.4	22.2
<b>b. In your opinion, a school is fair if...</b>								
all the pupils leave school with a good basic knowledge and set of skills.	French Com.	37.5	38.0	38.3	37.8	38.0	30.7	37.8
	Madrid	24.4	20.1	26.2	20.5	27.0	21.4	23.6
	Paris*	31.3	29.0	32.8	29.1	-	34.6	31.2
	Rome**	-	-	58.8	60.6	58.1	65.9	60.0
	Wales	35.2	47.6	39.8	39.8	38.9	57.9	40.5
all the pupils have the same chances of academic success regardless of their family background	French Com.	51.5	53.3	48.3	54.8	51.9	48.5	51.7
	Madrid	67.0	68.8	62.6	72.1	62.6	62.2	67.0
	Paris*	61.2	59.8	55.6	64.7	-	49.4	59.9
	Rome**	-	-	25.3	23.6	12.9	15.3	24.2
	Wales	55.5	44.2	50.1	53.0	50.0	15.8	51.2
at the end of the secondary school, the gap between the most and the least able pupils is not too significant.	French Com.	11.0	8.8	13.4	7.3	10.2	20.8	10.5
	Madrid	8.7	11.2	11.2	7.4	10.4	16.4	9.4
	Paris*	7.5	11.2	11.5	6.2	-	16.0	8.9
	Rome**	-	-	15.9	15.8	29.0	18.8	15.8
	Wales	9.3	8.3	10.1	7.2	11.1	26.3	8.3

# Student’s general opinion about justice

There is considerable agreement among all countries and groups of students that success in later life is due to hard work at school and in employment, mixed with natural talent. There is very little support for the idea that success is due to luck or family privilege. A majority believed that higher pay for higher qualifications is a fair

This indicator concerns “success” in life after schooling, and assesses the extent to which pupils believe that pay and success in a career are related to work, qualification, social background, or luck. There was general agreement with the statement that “It is fair that people are better paid because they are better qualified” – a meritocratic principle. However, agreement was lower in Italy, among female students and for those who felt that they received low marks (Table 1a). Agreement was substantially higher in the United Kingdom.

Regardless of what was considered “fair”, students attributed success later in life almost equally to having worked hard at school (around 80 %), and working hard at their job (around 90 % agreement in Table 1b). Patterns here were similar across countries and groups. There was also limited support for the idea that success was related to natural talent (around 50 %), and this was stronger in Italy and in French speaking Belgium.

On the other hand, there was very little support for the notion that success was linked to whether or not an individual was lucky, or came from a privileged home or family background. Recent gender discourse has suggested that female students attribute academic success to hard work, while male students are more likely to link success with luck or natural talent. There was some support for this notion in this study, particularly among the male students’ higher attribution of success to natural talent. However, it must be remembered that both males and females overwhelmingly attribute success to hard work.

Sources:  
European pilot survey about feelings of justice at school.  
Questionnaire for pupils.

Data provided by a survey among 13-14 year old pupils from five European countries: Belgium (French Community), Spain (Madrid), France (Paris), Italy (Rome), and the United Kingdom (Wales), between November and December 2002. In the United Kingdom and Italian samples, there were relatively few students who stated that they were born outside the test country (2.3 % for United Kingdom and 5.0 % for Italy). The results for this category should be treated with caution. There was a relatively high proportion of students who report that they receive low marks in school in Spain (22.9 % of the sample) and a low number in the United Kingdom (2.7 % of the sample). It is important to remember that the students themselves were asked to provide this estimate; it was not based on actual performance data. In order to determine the occupational category, the 10 categories coded in the questionnaire were amalgamated into 2. The higher occupational status was used in this analysis.

\* Data on non-native pupils are not available for France.  
\*\* Data on social category are not available for Italy.

B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	CH	NO
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Table 1. Opinions on equity and success factors

	Area/City	Higher social group	Lower social group	Boys	Girls	Non-natives pupils	Pupils with low marks	All pupils
<b>a. It is fair that...</b>								
<b>people are better paid because they are better qualified.</b>	<b>French Com.</b>	61.0	49.1	66.4	50.3	67.0	49.0	58.2
	<b>Madrid</b>	67.3	62.7	70.0	62.0	54.5	61.0	66.2
	<b>Paris*</b>	63.2	48.5	66.0	53.9	-	50.6	60.4
	<b>Rome**</b>	-	-	53.3	39.1	50.0	39.3	46.8
	<b>Wales</b>	78.3	70.2	75.4	72.3	72.2	52.9	73.8
<b>b. When a person has succeeded in life, it is because:</b>								
<b>he/she has worked hard at school.</b>	<b>French Com.</b>	82.1	88.2	85.3	82.3	76.9	72.6	83.6
	<b>Madrid</b>	77.9	83.0	78.4	79.9	84.9	72.3	79.1
	<b>Paris*</b>	83.7	87.8	84.6	83.3	-	63.3	84.1
	<b>Rome**</b>	-	-	76.8	63.5	89.3	63.4	70.7
	<b>Wales</b>	87.5	89.3	86.1	89.0	76.5	83.3	88.1
<b>he/she has worked hard at his/her job.</b>	<b>French Com.</b>	89.2	87.1	89.1	88.1	89.9	87.8	88.6
	<b>Madrid</b>	94.1	95.7	93.6	95.6	96.4	92.3	94.2
	<b>Paris*</b>	91.4	90.9	91.5	88.6	-	90.9	90.1
	<b>Rome**</b>	-	-	94.2	94.9	96.7	91.5	94.4
	<b>Wales</b>	95.8	89.8	91.5	95.3	77.8	94.7	93.4
<b>he/she has come from a privileged family.</b>	<b>French Com.</b>	18.7	15.8	22.5	13.6	21.7	20.0	18.0
	<b>Madrid</b>	29.7	30.4	35.4	23.7	28.4	36.6	30.4
	<b>Paris*</b>	24.3	25.3	29.6	20.5	-	32.4	25.2
	<b>Rome**</b>	-	-	25.7	23.0	19.2	19.3	24.4
	<b>Wales</b>	22.3	30.2	30.3	17.4	17.6	26.3	25.1
<b>he/she was naturally talented.</b>	<b>French Com.</b>	55.1	57.4	59.2	53.4	51.4	62.2	56.0
	<b>Madrid</b>	40.0	37.8	42.0	36.8	35.8	43.0	39.6
	<b>Paris*</b>	44.7	44.7	45.3	42.2	-	41.9	44.1
	<b>Rome**</b>	-	-	64.6	60.3	66.7	54.5	62.6
	<b>Wales</b>	41.6	40.8	44.7	38.4	44.4	36.8	41.8
<b>he/she was lucky.</b>	<b>French Com.</b>	24.6	28.0	25.3	26.1	30.0	39.8	25.7
	<b>Madrid</b>	36.3	37.3	40.9	31.5	33.0	42.2	36.3
	<b>Paris*</b>	26.8	35.1	28.3	29.8	-	34.2	29.1
	<b>Rome**</b>	-	-	42.0	31.6	46.4	27.5	37.7
	<b>Wales</b>	20.8	22.2	25.2	19.7	33.3	52.6	23.1

Table 1 shows the percentage of students who agree/strongly agree with the statements referring to their general opinions about justice. The Table shows the responses for all students, plus those for students from the higher and lower occupational groups, both sexes, non-native students (those who state that they were born outside the country of the test), as well as for those who feel that their marks in school are low.

# Inequalities in schooling expectancy

**Inequalities in schooling expectancy between the 10 % who spend the longest in school, and those whose schooling lasts the shortest time may vary by as much as three times between two extreme systems (inequalities of 5.5 years for Ireland compared with 13.2 for Austria, for example). They also highlight the unequal situation concerning the duration of the shortest schooling (from 7.8 years for those with the shortest schooling in the Belgian educational system compared with 10.8 years in Germany, the Netherlands, Norway, or Sweden). Finally, the indicator shows that in general, schooling expectancy is higher for women than for men, in the majority of European educational systems, except in Austria, Germany, the Netherlands and Switzerland.**

The quantity of education received may be the cause of inequalities of learning or academic and professional careers between pupils. It is also one of the measurements of the effort that the community – society and family – devotes to schooling a child. Therefore, the inequalities in duration of education measure the inequalities in the efforts made to prepare young people for adulthood and working life. They are part of the context of general growth in the duration of schooling, which may be accompanied by inequalities of increasing duration. For instance, for France, “the inter-decile intervals, which are indicators of inequalities of access to the educational system, considered in terms of education length, increase from 1988-1989 to 1998-1999. The difference between the schooling length of the 10% of the less educated and the 10% of the most educated increased by one year during that period (from 6.9 years as a difference in 88-89 to 7.9 years in 98-99)” (Merle, 2002).

These inequalities are generally justified in three ways: those who receive less schooling will not benefit from additional schooling, which they do not really want; everyone benefits when those with greater ability and who work harder receive better training, at least if the skills they acquire are put to use for the benefit of all, or, in a Rawlsian perspective, for the benefit of the most disadvantaged; finally, each individual must be able to develop the aptitudes that he/she possesses to the full.

Whatever the factual or theoretical validity of these arguments, they show that, as such, these inequalities are justifiable. They also show that the greater these inequalities are, the more they have to be justified.

Three indexes of inequalities in duration of schooling can be determined to characterize the operation of the various educational systems. The first relates to the inequalities between individuals and concerns the discrepancy in the duration of schooling between the 10 % of students who study the longest and the 10 % who study for the least time. The second index relates to discrepancies in duration between groups (men/women); the third relates to the duration of schooling of the 10 % with the shortest period of schooling. Schooling expectancy for the pupils with the longest schooling and the mean schooling expectancy for all the educational systems are shown in the methodological annex.

Pronounced differences can be observed between countries. In particular, inequalities between schooling expectancy between the 10% leaving the system fastest and the 10 % who remain there longer, can vary by as much as three times from one country to another (5.5. years for Ireland to 13.3 for Denmark). However, Ireland appears here to be an exception, since the other countries present average differences much closer to those observed in Denmark.

Some countries are particularly egalitarian concerning the dispersion of schooling expectancy and concerning the duration of schooling for those who study for the shortest period (particularly Belgium, but also Austria, Denmark, and Portugal). Other countries are more egalitarian in these two dimensions (Sweden, France, Ireland, and the Netherlands). On the other hand, countries like Germany, Finland and Norway diverge according to the chosen criteria: they educate their weakest pupils for quite a long time, at the same time as displaying a rather pronounced dispersion of durations of schooling.

The index on inequalities of schooling between groups relates to differences in schooling expectancy between men and women on entering the educational system. In the majority of countries, the schooling expectancy is higher for women than for men (from 0.4 year on average for OECD countries). Deviations between the levels of schooling of the various countries are usually greater for women than for men. Some countries display substantial differences between the genders, in favour of women, particularly the Nordic countries (Denmark, Finland, Norway and Sweden) and the United Kingdom.

## Sources:

Specific calculations carried out on the basis of data supplied by the OECD.  
OECD (2001). *Education at a Glance*, 2001. Paris.

*In order to obtain net rates of schooling, the number of pupils/students of a given age group schooled in the system, all levels combined, is divided by the number of the population of the same age group. The total of these net schooling rates is the schooling expectancy. These rates are listed in the methodological annex (Table 1). Based on schooling levels at different ages, a weighted average is calculated for the 10 % who spent the longest period studying, and for the 10 % whose schooling lasted the shortest period. We give, for information, the schooling expectancy per countries of 10 % of pupils who study for the longest period (methodological annex, Table 1), and that for pupils who study for the shortest period is shown in the table opposite.*

Table 1. Inequalities in schooling expectancy

<i>Country</i>	Schooling expectancy for the 10% who have the longest education (2000) (1)	Schooling expectancy for the 10% who have the shortest education (2000) (2)	Gender inequalities 100.F/H (1999) (3)	Schooling expectancy inequalities between the 10% who have the longest education and the 10% who have the shortest education (2000) (4)
<b>BELGIUM</b>	21.9	11.6	103.84	10.3
<b>DENMARK</b>	23.0	9.7	105.81	13.3
<b>GERMANY</b>	22.8	10.8	98.84	12.0
<b>GREECE</b>	20.1	9.4	102.59	10.7
<b>SPAIN</b>	21.9	9.5	104.11	12.4
<b>FRANCE</b>	22.1	10.7	102.45	11.4
<b>IRELAND</b>	15.8	10.3	105.13	5.5
<b>ITALY</b>	-	-	103.22	-
<b>NETHERLANDS</b>	22.0	10.8	97.13	11.2
<b>AUSTRIA</b>	22.6	9.4	98.75	13.2
<b>PORTUGAL</b>	22.3	9.4	103.63	12.9
<b>FINLAND</b>	23.0	10.0	107.34	13.0
<b>SWEDEN</b>	23.0	10.8	119.35	10.2
<b>UNITED KINGDOM</b>	23.0	10.0	108.80	13.0
<b>SWITZERLAND</b>	21.9	9.6	95.21	12.3
<b>NORWAY</b>	22.9	10.8	106.32	12.1

- (1) Schooling expectancy of year  $n$ , obtained by adding the net schooling rate at the various ages, represents the number of years during which a pupil who entered the educational system in year  $n$  would remain in it, if the pass rates were as observed in that year throughout his/her school career. For example, in Austria, the 10 % who remain in the educational system the longest have an average schooling expectancy of 22.6 years (weighted average) starting from their entry into primary education (pre-primary is not counted), as indicated in Table 1 of the methodological annex.
- (2) The 10 % who remain for the shortest period remain there for an average of 9.4 years, as indicated in the third column.
- (3) The ratio between the schooling expectancy of women and that of men, multiplied by 100. Therefore, an educational system that has a rate above 100 is a system where women have a higher schooling expectancy than men do.
- (4) The difference between the two is  $22.6 - 9.4 = 13.2$  years.

# Inequalities in education spending

The countries where the inequalities in spending between primary education (compulsory) and tertiary education (selective). are least pronounced are Spain, Italy, Portugal, and Denmark. It also seems that the distribution of resources between schools or classes is more dispersed in the Latin countries, plus Austria and Belgium. Among the countries where the resources are dispersed, the distribution is in favour of pupils at risk in Austria, Belgium, and France, but does not favour them in Spain, Italy, and Portugal.

The countries that spend most on education are not necessarily those whose pupils obtain the best results or those who educate their pupils for the longest period (Mingat & Suchaut, 2000). The inequalities in public spending within a single country for different individuals are nevertheless important from the viewpoint of fairness. The spending on an individual can vary depending on the duration of his/her education, inequalities in spending between various levels of education and finally, differences in spending between establishments or classes at the same level of schooling (the main determinant is the teaching staff complement of these establishments or classes). Inequalities in spending are presented from the following two viewpoints:

- The relationship between public spending on a student in tertiary education (which educates the pupils who were most successful at school and from more privileged social backgrounds) and on a pupil in primary education, which educates the whole population.
- Up to the end of compulsory schooling, fairness requires that the educational system's resources should be distributed to compensate the handicaps of certain populations of pupils. For that reason, the dispersion of teacher-pupil ratios and then the size of classes between certain disadvantaged populations and the remaining population are presented (1).

European countries spent approximately twice as much for a student in tertiary education than for a primary school pupil (Austria, Finland, France, Greece, and Norway). The educational systems of Germany, Belgium, the United Kingdom, Sweden and even more so Ireland and the Netherlands give even greater precedence to students in tertiary education. The most egalitarian educational systems are those of the Latin countries (Spain, Italy, Portugal) and that of Denmark.

The Austrian educational system stands out due to its pronounced dispersion of teacher-pupil ratios between the various establishments attended by 15 year-old students, unlike those of France, Italy, Portugal and even more so of the United Kingdom, Sweden and Switzerland. The position of the countries sometimes differs if we take class sizes as the criterion: the dispersion of teacher-pupil ratios, in relation to other countries, is lowest in Spain, France, Portugal, the United Kingdom than that of class sizes, probably because these educational systems tend to break up large classes more, which allows a fairer use of resources.

In all European countries, 15 year-old students from disadvantaged social backgrounds (2) are taught, on average, in slightly smaller classes, particularly in Belgium, Austria, and France. In Denmark, Finland, Italy and the United Kingdom, and Sweden (3), disadvantaged pupils receive the least of this kind of advantage. In some countries (Finland, Ireland, Italy, and the United Kingdom), 15 year-old students whose parents were born abroad are in classes of the same size, or slightly larger, than other pupils are. However, in the majority of educational systems, they are in smaller classes, especially in Belgium, the Netherlands, Austria, Luxembourg, and Switzerland. The weakest pupils are not taught in larger classes in any country. They are taught in classes of the same size in the Latin countries (Spain, Italy, and Portugal) and the Scandinavian countries (Denmark, Norway, and to a less pronounced extent, Finland and Sweden), in smaller classes everywhere else, especially in Austria, Belgium, and the Netherlands.

As to the use of educational resources, the countries are also quite different depending on their cultural region: the Latin countries spend less on higher education than the English-speaking countries. Within a single generation, the distribution of resources between establishments or classes is more dispersed in the Latin countries, Austria and Belgium. Finally, among the countries where resources are dispersed, the distribution is more favourable to pupils at risk in Austria, Belgium, and France, but does not particularly favour them in Spain, Italy, and Portugal.

Sources:  
Calculations made from the PISA database  
OECD (2002). *Education at a glance*, 2002, Paris.  
MINGAT, A. & SUCHAUT, B. (2000). *African education systems*. De Boeck (p.30: illustrate that it is not the countries that spend most on education that have the best results or educate their pupils for longer).

.....

(1) The average effect of the teacher-student ratio was measured on the performance of pupils on the combined scale of literacy. According to PISA, effects connected with this variable are non-linear. In general, the impact of this variable on pupils' results is rather modest. However, where the ratio exceeds 25 pupils, the performance in the three fields analysed by PISA falls significantly.

(2) The calculation was carried out for girls/boys, but countries where the two genders are taught in classes of significantly different sizes are very few (except for Belgium, France, Greece and the Netherlands, where 15 year-old girls are taught in classes that are, on average, slightly larger than those for boys).

(3) While those from disadvantaged backgrounds are taught in smaller classes, they are generally not taught in establishments with the highest teacher-pupil ratios, except in Belgium, France, Greece, Spain, and Sweden.

Table 1. Ratios of spending between primary and tertiary education, inequalities in teacher-pupils ratios and class

Country	Inter-individuals inequalities				Inequalities between groups for the class sizes		Class sizes for students below the skills threshold
	Spending per pupil (1999) (1)	Mean of the class sizes (2000) (2)	Dispersion of teacher-pupils ratios (2000) (3)	Dispersion of the class sizes (2000) (4)	Disadvantaged social background (2000) (5)	Foreign origin (2000) (6)	Students below the skills threshold (2000) (7)
BELGIUM	246	18.2	5.5	5.6 (0.1)	85 (1.5)	86 (3.0)	71 (2.4)
DENMARK	159	17.1	4.6	3.6 (0.1)	98 (1.3)	98 (3.0)	98 (1.7)
GERMANY	272	23.8	4.6	4.5 (0.1)	94 (0.9)	97 (1.1)	86 (1.2)
GREECE	196	24.8	5.1	5.0 (0.2)	94 (1.2)	95 (2.2)	92 (2.0)
SPAIN	157	23.8	4.8	6.2 (0.2)	93 (1.5)	95 (4.4)	94 (2.0)
FRANCE	190	26.6	3.7	5.9 (0.1)	90 (1.1)	97 (1.7)	78 (1.3)
IRELAND	320	22.4	5.9	5.5 (0.1)	92 (1.2)	101 (2.8)	78 (1.9)
ITALY	141	22	3.5	4.3 (0.1)	98 (1.0)	102 (4.2)	98 (1.9)
LUXEMBURG	-	20.8	-	4.5 (0.1)	91 (1.0)	91 (0.8)	89 (2.4)
NETHERLANDS	295	23.2	-	4.9 (0.2)	92 (1.8)	88 (3.1)	73 (3.4)
AUSTRIA	184	18.3	8.1	6.7 (0.1)	89 (1.4)	91 (2.7)	76 (2.4)
PORTUGAL	138	21.3	3.9	5.8 (0.1)	96 (1.2)	96 (3.1)	95 (1.8)
FINLAND	196	18.6	4.5	3.2 (0.1)	97 (0.8)	100 (2.4)	90 (2.7)
SWEDEN	248	20.1	2.9	4.6 (0.1)	97 (1.0)	93 (1.9)	89 (1.7)
UNITED KINGDOM	263	24.4	2.5	5.2	98 (1.2)	100 (1.4)	85 (1.5)
NORWAY	270	17.7	2.9	4.6 (0.1)	90 (1.3)	91 (1.4)	82 (1.9)
SWITZERLAND	204	22.7	5.1	5.4 (0.4)	95 (1.7)	104 (2.2)	97 (2.6)

The first column, spending per pupil, establishes for each country the ratio between public spending for a higher education student and for a primary pupil. The spending per primary pupil was reduced to 100, for each country. In consequence, a ratio of 200 means that the spending is twice as much for a tertiary student than for a primary school pupil. The higher the value of the indicator, the greater the inequality in spending on tertiary and primary education. The dispersion of teacher-student ratios (PISA data) gives the differences between establishments in the number of "full time equivalent" teachers divided by the number of students in the school.

In the three last columns is shown, for 100 students from the complementary group, the size of the class for disadvantaged social backgrounds pupils, for foreign origin pupils, and for pupils below the skills threshold (according to PISA).

The standard error of the indicators is shown in parentheses.

See methodological annex for definitions.



# Perception of the support provided by teachers, according to 15 year-old students

**In 10 of the European Union Member States, girls provide significantly more positive answers than boys do. In the Member States where differences are observed for students whose parents work in the least prestigious professions and students whose parents are born abroad, compared with other students, these interest groups consider that they receive more support from their teachers than their classmates do. The situation is markedly different for students with poorer**

The literature on schooling efficiency suggests that it is beneficial for pupils, in particular those whose performance is low, to have teachers who show interest in their progress, want to make them advance, and help them (OECD, 2001). The PISA 2000 evaluation questioned pupils on these various aspects, and created a “teacher support” index, based on the responses of 15 year-old pupils relating to the frequency with which they state: “The teacher shows an interest in every student’s learning”, “The teacher gives students an opportunity to express opinions”, “The teacher helps students with their work”, “The teacher continues teaching until the students understand”, “The teacher does a lot to help students”, and “The teacher helps students with their learning”. In our matrix, this indicator represents a facet of the “quality of the school environment”.

The average value of the index for the EU Member States (-0.01) is comparable with that of all the OECD countries (set at 0.00). At the European level, the lowest values of the index are observed in the Benelux countries, Italy, Germany, and Austria. One can observe that the majority of these countries have a tradition of highly segregated education (early streaming, repeating grades, specialized education, etc.). The highest values are observed in Denmark, Sweden, Greece, Ireland, and Portugal. The dispersion of students is wider than the European average (average = 1.00) in Luxembourg, Ireland, Spain, and Austria, and is tighter in the Netherlands, Italy, and in the three North countries of European Union (< 0.90).

When we compare the values of the index for boys and girls (Graphic 1), we notice that for 10 of the 15 EU Member States, the answers by girls are significantly more positive than for the boys. This type of data, based on information from students, does not allow verification of whether there are genuine differences in the practices and attitudes of teachers in favour of girls – for example, it may concern a difference in perception. However, a difference based on gender, even if it is only perceived, may indicate that girls feel that they have more support from their teachers.

In seven of the EU Member States, as well as in Switzerland, the differences between the responses from the 25 % of pupils whose parents work in the least prestigious professions and other pupils are significant (Graphic 2). In Denmark, students from the most disadvantaged social backgrounds feel that they receive the least support from their teachers. On the other hand, in Germany, Luxembourg, the Netherlands, Italy, France, and Spain, they state that they receive greater support than students from more privileged backgrounds do. Similar observations can be made for students whose parents were born abroad: in the Benelux countries, Germany, Switzerland, Finland, and Sweden, the students whose parents were born abroad state that they feel they are supported by their teachers significantly more than their classmates are (Graphic 3).

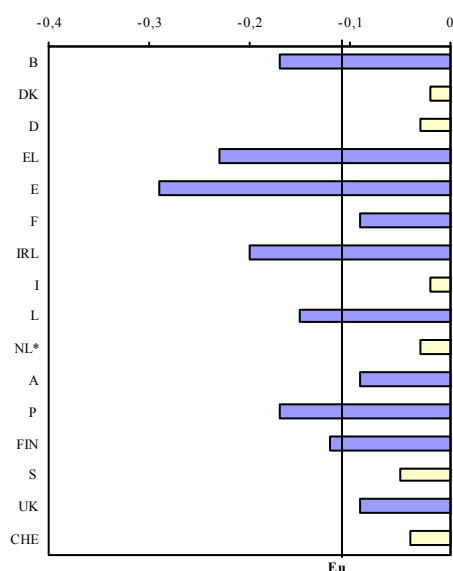
The situation of the pupils with the poorest reading skills (below PISA literacy level 2) is also mixed. Rather surprisingly, there is no significant difference between them and their peers in the majority of the EU Member States. On the other hand, their responses are more negative than those of their counterparts in Denmark and the United Kingdom, while in Germany, Luxembourg, Switzerland, and Italy, they state that they receive their teacher’s support more than others do. This may reflect the policies that certain countries have set up in favour of low achievers, who may receive special courses, or a more appropriate and individualized learning environment (Graphic 4).

*Sources:*  
Pisa 2000 database.  
<http://www.oecd.org/els/PISA>  
OECD (2001). Knowledge and skills for life. First results from Pisa 2000. Paris : Author.

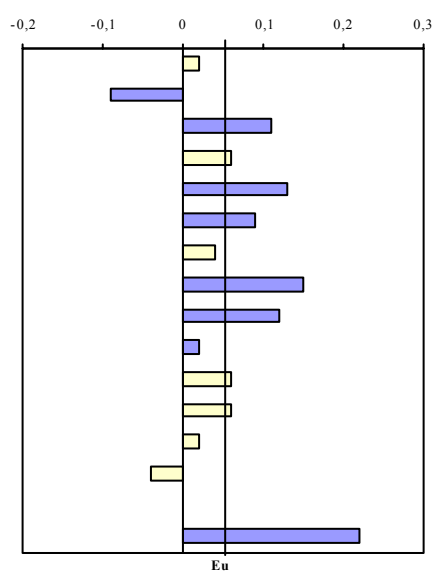
For these indices, the international average was set at 0.00 for all the OECD countries and the standard deviation is 1.00. For these indices, negative values indicate a situation less favourable than the average in all the countries of the OECD. For the method of calculation (effect size) and the definition of interest groups, please refer to the technical note of the indicator “professional aspirations of 15 year-old students”, in Context, A.4.1



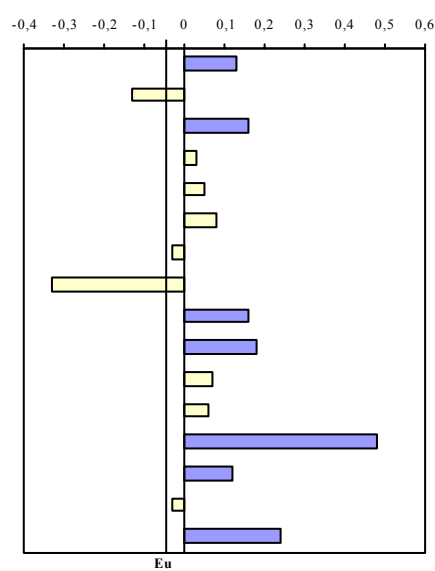
**Graphic 1. . Index of support from teachers for boys compared with that for girls**



**Graphic 2. Index of support from teachers for students whose parents have the least prestigious professions compared with that for other students.**

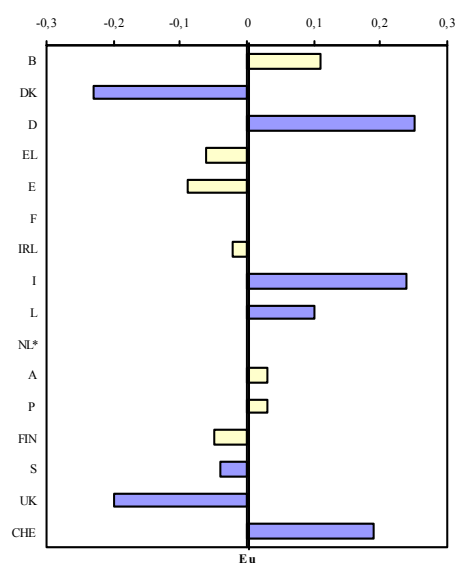


**Graphic 3. Index of support from teachers for students whose parents were born abroad, compared with that for other students.**



Values below zero indicate that interest groups (boys, students whose parents have the least prestigious professions, students whose parents were born abroad) declare that they receive less support from teachers than other students do.

**Graphic 4. Index of support from teachers for students below the reading skills threshold compared with that for other students.**



Values below zero indicate that students with the poorest performance in the reading test (below literacy level 2) declare that they receive less support from teachers than other students do.

\* For this country, the rate of response is too low to guarantee good comparability.

The countries marked in blue are those for which there are significant differences ( $p=0.05$ ) between the categories of student compared.

For each graphic, the vertical line indicates the value of the effect size, for the EU Member States. An unweighted average was calculated (each Member State has the same weight).

# The disciplinary climate in classrooms, according to 15 year-old students

In half of the European Union Member States, boys report situations that disrupt learning in class more than girls do. In 10 of the Member States and in Switzerland, the weakest pupils state that they are in less favourable conditions than students whose performance is better.

This indicator concerns the factors that may disrupt the learning climate, and which form part of what we have defined as being part of the school environment. Students were questioned about the frequency of certain situations during their courses for the language of instruction. The questions survey the working atmosphere within classes of 15 year-olds. The PISA disciplinary climate index gives a measurement of the perception of the learning climate for the students questioned.

The value of the index for all the EU Member States is greater (0.10) than the average value for the OECD countries (set at 0.00). In Austria, Luxembourg, and Ireland, students have, on average, a more positive perception of the disciplinary climate in their class than in other EU Member States, while in Greece, the Netherlands, Italy, Sweden, Finland, Spain, and Belgium, the pupil's responses are, on average, more negative than in the EU as a whole. The dispersion of values of the index for the EU as a whole is of the same order as that of the OECD countries. It is lower in Denmark, Portugal, Sweden, and Greece. On the other hand, the responses vary more between students in Austria, Ireland, and Luxembourg.

In 8 of the 15 EU Member States, we observe significant differences to the detriment of boys (Graphic 1). In Germany, Luxembourg, Ireland, the United Kingdom, Italy, Spain, Portugal, and Greece, boys report situations that disrupt the disciplinary climate in courses for the language of instruction more than girls do. Divergences between girls and boys on this type of data are a reminder of the need for caution when considering responses by students that are not backed up by external observations. In fact, gender-based differences may result from a divergence in the manner of perceiving the same working environment in countries which do practise co-education, without gender differences between courses of study. It is also possible that where co-education is not practiced, that 15 year-old boys are grouped into classes where they do not benefit from a learning climate comparable to that of girls.

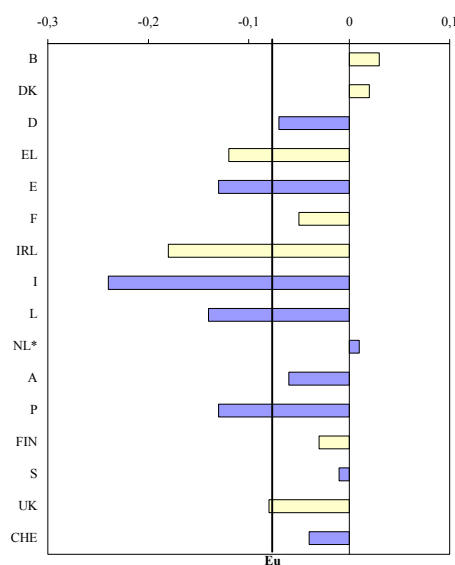
It is also possible to think of a similar type of phenomenon when we compare the response of 25 % of pupils whose parents have the least prestigious professions on the hierarchical occupational scale to those of other students: in 4 of the 5 EU Member States where we observe significant differences between the two groups, they are unfavourable to the most disadvantaged, who report more disruption. The latter group would suffer worse working conditions in class in Spain, Italy, Ireland, and the United Kingdom. Only Greek pupils coming from families that are more modest describe a more peaceful environment than their more privileged counterparts do (Graphic 2). Greek students are also different from those in other countries when we compare the situation of pupils whose parents were born abroad to that of other students: they are the only ones to provide significantly more favourable responses. In all the other countries analysed, the differences are insignificant, except for Italy, where children of parents born abroad claim to be in less peaceful working conditions than other students (Graphic 3).

In 10 of the EU Member States and in Switzerland, the low achievers in the reading test (below literacy level 2 on the PISA combined scale), give significantly less positive responses than their counterparts do to items that compose the "disciplinary climate" index. The students with the poorest performance declare significantly more than others do that they are in classes where the learning environment is disrupted by noise or agitation by pupils. In the Benelux countries, France, and Greece, the differences between students with better, or worse reading performance are insignificant (Graphic 4).

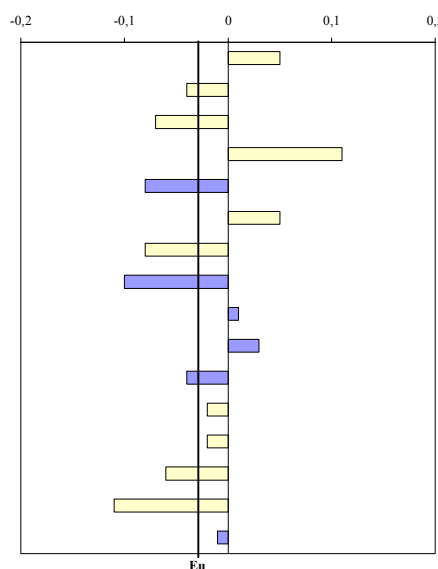
The disciplinary climate index is based on the responses by 15 year-old pupils to questions relating to the following situations in the courses for the language of instruction: "Students cannot work well", "There is noise and disorder", "At the start of class, more than five minutes are spent doing nothing", "The teacher has to wait a long time for students to quieten down", "Students don't listen to what the teacher says", "Students don't start working for a long time after the lesson begin". For this index, the international average was set at 0.00 for the OECD countries as a whole. The standard deviation is 1.00. For these indices, negative values indicate a situation less favourable than average in all the OECD countries. For the method of calculation ("effect size") and the definition of interest groups, please refer to the technical note for the indicator (professional aspirations of 15 year-old students", in Context, A.4.1.

Sources:  
Pisa 2000 database.  
<http://www.oecd.org/els/PISA>

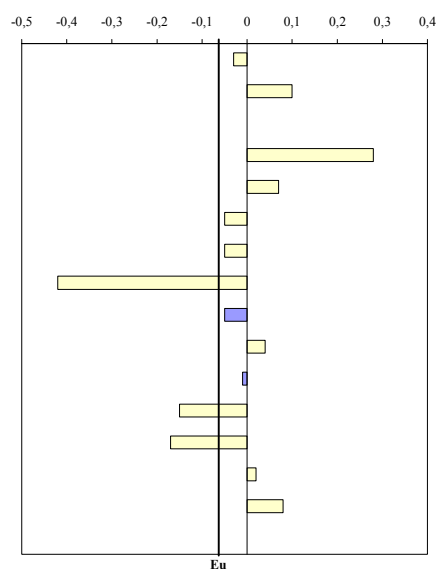
**Graphic 1. Disciplinary climate.**  
Index for boys  
compared with that for girls



**Graphic 2. Disciplinary climate.**  
Index for students with parents  
with less prestigious  
professions compared with that for  
other students

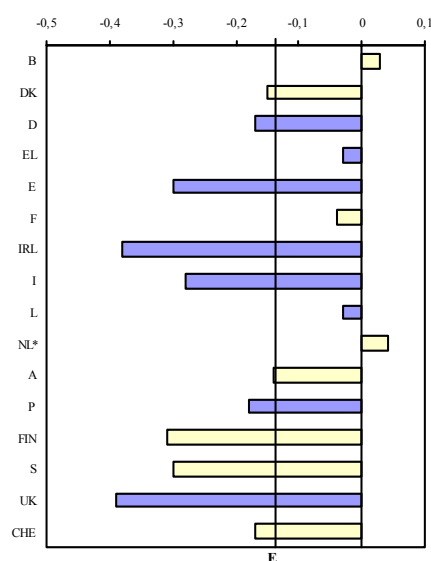


**Graphic 3. Disciplinary climate.**  
Index for students whose parents  
were born abroad compared with  
that of other  
students



Values below zero indicate that interest groups (boys, students whose parents have the least prestigious professions, students whose parents were born abroad) perceive the disciplinary climate in their class less favourably than other students do.

**Graphic 4. Disciplinary climate.**  
Index for students  
below the reading skills threshold  
with that of other students



Values lower than zero indicate that the students with the poorest performance in the reading test (below literacy level 2) perceive the disciplinary climate of their class less favourably than other students do.

\* For this country, the rate of response is too low to guarantee good comparability.

The countries marked in blue are those for which there are significant differences ( $p=0.05$ ) between the categories of student compared.

For each graphic, the vertical line indicates the value of the effect size, for the countries of the European Union. An unweighted average was calculated (each country of the Union has the same weight).

# Segregation

To what extent are students unfairly distributed between the schools within their respective EU countries? The findings presented here assess the segregation between schools of different educational, social and economic groups. In summary, segregation is related to the level of student selection by schools.

Overall, the Scandinavian countries of Sweden, Denmark, and Finland show less segregation

Segregation is a measure of the extent to which students with a specific characteristic are evenly (or unevenly) spread between the schools in one country. Of particular concern is the pattern for the most disadvantaged students in terms of achievement and family background. Equitable school systems would not encourage the clustering together of students from poorer families, of similar occupational class, those born outside the test country, and those obtaining poor test scores. Such clustering could lead to various forms of “ghettoisation” with all of the inequitable educational, social, and residential consequences that this entails. Tables 1 and 2 are derived from PISA 2000 and TIMSS 1995. They illustrate between-school segregation for the 10 % of students with the lowest score in tests of reading, maths and science, and by parental occupation and family wealth (i.e. the lowest deciles). The Tables also illustrate segregation by female students, students who do not speak the test language at home, students whose parents were born outside the test country, and students who were born outside the test country. In each case, the segregation value denotes the percentage of the “minority” group who would have to exchange places for there to be an even distribution of this group of students across schools in each country.

Four preliminary points emerge clearly from these tables. First, the segregation scores are very different in scale for different indicators. For example, segregation by gender is generally much lower than segregation by test scores. Second, there is considerable variation between countries in their segregation scores for any one indicator. Segregation by gender in Ireland is four times that in Finland, whereas segregation by reading test score in Ireland is nearly half that of Belgium (and so on). Third, segregation by family wealth does not correlate highly with any other variable (even parental occupation). Fourth, the difference between the segregation scores for ostensibly the same indicators in PISA and TIMSS shows how sensitive these figures can be to sampling, age of students, historical period, and the precise definition of variables. These four points together show that it is not possible to conclude overall that any one country has a more (or less) segregated school system than another country.

Nevertheless, several interesting conclusions can be drawn when considering these segregation scores in interaction, and in comparison to school-level variables emerging from PISA. High segregation by sex is largely a product of the existence of single-sex schools in the sample ( $r = 0.7$  for PISA) and/or academic and religious selection in allocating school places.

Countries that have highly segregated test scores in one subject (e.g. reading) also tend to have similar levels of segregation in other subjects (Maths and Science). These countries also appear to have tiered schooling systems, or report allocating a high proportion of school places via academic selection ( $r = 0.6$  for PISA).

Segregation by parental occupation and by country of origin do not correlate consistently or highly with any other of the measures used here. They are, presumably, measures of how mixed the intakes to schools are as a result of admission policies other than selection, and will also be a function of population density and mobility and the nature of housing. Therefore, it would be safe to conclude that selection, and not social segregation as such, is responsible for the largest gaps in attainment. Overall, the Scandinavian countries of Sweden, Denmark, and Finland show less segregation on most indicators.

## Sources:

OECD, PISA 2000

NCES, TIMSS 1995

Gorard, S., Taylor, C., (2002) What is segregation? A comparison of measures in terms of strong and weak compositional invariance, *Sociology*, 36(4), pp. 875-895.

The data from PISA 2000 and TIMSS 1995 (population 2, 7<sup>th</sup> and 8<sup>th</sup> grade students) was analysed using a variety of segregation indices, measuring the extent to which groups of students are evenly distributed between schools in each country. The index illustrated here is the segregation index (S) which can be defined as the ‘proportion of the minority group of students who would have to exchange schools for there to be an even distribution of this group across all schools’ (Gorard and Taylor 2002). S gives similar results to other indices of the same type, such as the Dissimilarity index and the Gini coefficient. The correlation between all indices and S was 0.9 or higher.

Table 1. PISA

Country	Reading	Maths	Science	Family Wealth	Parental Occupation	Gender	Linguistic origin	Country of origin (parents)	Country of origin (student)
<b>BELGIUM</b>	66.2	64.6	65.1	26.0	36.1	21.9	60.9	35.9	44.6
Flemish Com.	59.3	56.5	61.3	18.8	33.5	26.1	62.9	37.0	51.2
French Com.	61.3	61.4	61.9	26.2	35.2	16.2	56.4	23.6	31.2
<b>DENMARK</b>	38.9	45.5	44.4	28.0	32.9	9.5	51.1	36.6	41.7
<b>GERMANY</b>	60.8	62.2	59.1	33.3	35.6	11.2	53.2	35.9	40.9
<b>GREECE</b>	58.4	57.1	55.0	26.3	43.3	12.5	68.2	33.8	47.8
<b>SPAIN</b>	40.0	40.0	45.0	28.0	31.6	9.9	75.4	41.2	56.9
<b>FRANCE</b>	56.3	56.2	56.4	31.4	30.5	11.9	59.7	29.1	47.2
<b>IRELAND</b>	39.0	38.4	42.7	29.5	28.8	29.7	79.7	27.9	45.4
<b>ITALY</b>	58.2	55.6	54.4	26.8	30.0	23.1	84.3	37.4	54.8
<b>LUXEMBURG</b>	40.8	37.2	40.0	23.2	23.7	12.3	25.4	12.6	23.7
<b>NETHERLANDS*</b>	66.0	61.6	64.7	23.3	30.3	10.2	57.8	32.5	41.4
<b>AUSTRIA</b>	61.8	62.1	63.1	24.1	36.4	28.4	53.3	38.9	48.7
<b>PORTUGAL</b>	48.1	51.8	48.5	36.4	39.7	7.5	70.0	35.6	34.9
<b>FINLAND</b>	27.4	34.4	34.3	21.0	35.8	7.3	74.7	50.2	54.7
<b>SWEDEN</b>	29.2	37.2	33.3	28.5	26.7	8.5	51.6	29.2	39.9
<b>UNITED KINGDOM</b>	42.8	49.1	48.0	26.3	30.8	16.0	71.3	38.2	45.8
England	39.4	45.4	47.2	28.3	31.7	14.7	63.3	41.3	44.4
Scotland	34.8	40.3	45.1	26.9	26.9	8.3	75.5	32.9	60.6
Northern Ireland	48.2	55.2	50.2	25.0	28.6	24.6	82.6	29.8	40.0
<b>EU</b>	<b>48.8</b>	<b>50.5</b>	<b>50.4</b>	<b>28.0</b>	<b>33.4</b>	<b>14.9</b>	<b>62.4</b>	<b>41.2</b>	<b>47.5</b>

Table 2. TIMSS

Country	Reading	Maths	Science	Family Wealth	Parental Occupation	Gender	Linguistic origin	Country of origin (parents)	Country of origin (student)
<b>BELGIUM</b>	-	-	-	-	-	-	-	-	-
Flemish Com.	-	47.2	32.2	-	-	27.3	37.8	33.7	45.6
French Com.	-	41.2	32.8	-	-	13.3	37.7	20.4	35.2
<b>DENMARK</b>	-	29.1	25.9	-	-	6.8	51.1	34.7	38.2
<b>GERMANY</b>	-	50.1	44.5	-	-	11.3	40.7	35.9	37.7
<b>GREECE</b>	-	27.0	24.4	-	-	7.5	33.9	28.6	28.4
<b>SPAIN</b>	-	28.1	27.8	-	-	11.7	58.2	60.3	43.9
<b>FRANCE</b>	-	33.1	25.6	-	-	7.3	37.2	-	-
<b>IRELAND</b>	-	37.0	32.8	-	-	29.0	64.5	23.3	38.3
<b>ITALY</b>	-	-	-	-	-	-	-	-	-
<b>LUXEMBURG</b>	-	-	-	-	-	-	-	-	-
<b>NETHERLANDS*</b>	-	50.9	40.8	-	-	9.9	42.5	30.6	34.9
<b>AUSTRIA</b>	-	45.9	42.6	-	-	11.4	48.2	33.6	44.1
<b>PORTUGAL</b>	-	25.3	24.9	-	-	9.2	44.4	35.9	33.1
<b>FINLAND</b>	-	-	-	-	-	-	-	-	-
<b>SWEDEN</b>	-	34.4	34.4	-	-	7.0	46.5	29.7	39.8
<b>UNITED KINGDOM</b>	-	-	-	-	-	-	-	-	-
England	-	32.2	32.5	-	-	15.8	55.5	40.2	41.4
Scotland	-	29.6	28.0	-	-	5.6	34.9	22.6	27.6
Northern Ireland	-	-	-	-	-	-	-	-	-
<b>EU</b>	-	<b>36.9</b>	<b>32.9</b>	-	-	<b>11.4</b>	<b>47.7</b>	<b>37.6</b>	<b>39.5</b>
<b>SWITZERLAND</b>	-	47.7	40.6	-	-	7.2	29.3	22.1	32.0
<b>NORWAY</b>	-	31.5	34.6	-	-	8.4	53.7	39.1	41.5

The tables indicate the segregation values for each measure for both PISA and TIMSS. The segregation value denotes the percentage of the minority group who would have to exchange places for there to be an even distribution of this group of students across schools in each country. Therefore, a larger score represents a less equitable school system.

\* For this country, the rate of response is too low to guarantee good comparability.

# Students' feeling of being treated with justice

Generally, and in reference to their own experience, students feel that they are treated with justice. In this way, they consider the marks they receive to be fair. However, when they judge a teacher's behaviour in relation to a group of students, their opinions become more negative: they consider that teachers do not treat pupils in an equal way, and punishments and rewards - as an expression of this treatment - differ according to the yield and the behaviour of pupils.

In the five countries participating in the survey, the percentage of students who agree with the sentence "Teachers treat me with justice" varies between 70.1 % for France and 78.2 % for Spain, which can be considered a high score. But when they are asked for their opinions about the sentence "The teachers respect all pupils" the level of agreement decreases in a remarkable way, especially for the United Kingdom and France, where just 49 % and 55.9 % of pupils, respectively, maintain this assertion. If we consider the fact that most of those surveyed show their disagreement with the statement "The teachers don't have pupils who are their favourites", we can point out some contradiction between the support expressed for the first sentence and the support received by the next ones.

It is not easy to assess the truthfulness of the opinions expressed by students about how they feel they are treated at school. The method of collecting the information, a questionnaire answered at *their* own school, and the possible concerns about the consequences of giving a certain opinion, could influence students to soften the expression of their personal experience, attributing the hardest opinions to a "collective" feeling, where their own situation remains diluted.

This indicator tries to identify the way students perceive the treatment they receive at school. The explanations given by schools underlines the existence of an equality in the treatment for all pupils, which means an absence of partiality in the relationship between pupils and the educational staff, above all teachers. The contrast between the explanations and the pupils' daily experience at school is what we want to identify.

The indicator is based in the information provided by a survey about the treatment received by students at school, about the connections between rewards and punishments, about the objectivity in pupils' treatment and finally about their assessment of the justice of the marks received.

Tables 1 and 2 summarize this information for the student body, as well as the peculiarities that can be found when we introduce the variable "social and economic position of the father" and the variable "academic results of pupils". The variable "gender" has not been included, given the wide coincidence of opinions between boys and girls. In Table 1, "General perception of justice at school", the biggest difference can be found among pupils with low marks, who are much more critical than the rest of their schoolmates in relation to their perception of justice at school. The influence of the social position in the opinions about the existence of preferences among teachers must be emphasized. Pupils in a mid-high social status state, much more than the rest of pupils, the existence of these preferences, as well as they think that respect showed by teachers for the student body is lower than between other social categories.

Table 2 shows the level of agreement with regard to punishments, rewards, and marks. According to this information, we can see a changing opinion among countries in relation to punishments and rewards, although there is a common line in the sense that it is likely that punishments are related to failures and a strong tendency that considers that the punishment of some pupils is more likely than others because of the same failure. This opinion is much more supported by pupils that have low marks at school and by pupils of highest status. Opinion about rewards is quite auspicious: pupils perceive a fair relation between rewards and merits. The judgement about the adequacy of rewards in relation to the feeling of being treated with justice is more habitual at school than about adequacy of punishments. The third factor, marks, considered in the research are a strong indicator in order to show that pupils think that marks received are suitable for the effort made and are fair. These opinions are maintained by a high percentage of pupils and differences that could occur between several variables, countries, status and academic results are scarce, which endorses the belief that marks are a reward for effort and, except for pupils with low marks, these marks are considered fair.

Data provided by a survey among 13-14 year old pupils from five European countries: Belgium (French Community), Spain (Madrid), France (Paris), Italy (Rome), and the United Kingdom (Wales), between November and December 2002.

In the United Kingdom and Italian samples, there were relatively few students who stated that they were born outside the test country (2.3 % for United Kingdom and 5.0 % for Italy). The results for this category should be treated with caution.

There was a relatively high proportion of students who report that they receive low marks in school in Spain (22.9 % of the sample) and a low number in the United Kingdom (2.7 % of the sample). It is important to remember that the students themselves were asked to provide this estimate; it was not based on actual performance data.

In order to determine the occupational category, the 10 categories coded in the questionnaire were amalgamated into 2. The higher occupational status was used in this analysis.

\* Data on social category are not available for Italy.

## Sources:

European pilot survey about feeling of justice at school. Questionnaire for pupils.

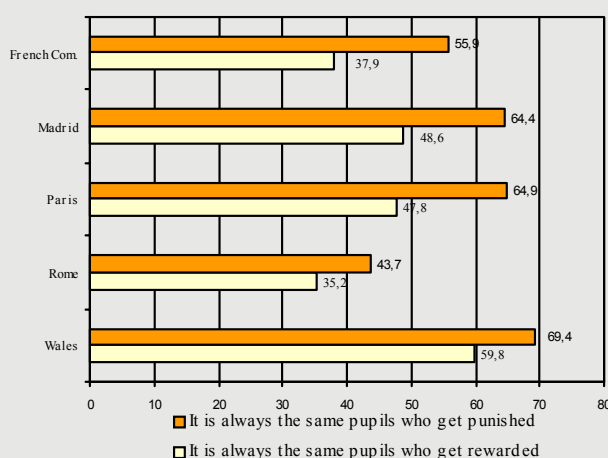


**Table 1. General perception of justice at school.**  
Percentage of pupil's agreement with the following sentences

	Area/City	Higher social group	Lower social group	Pupils with good marks	Pupils with low marks	All pupils
The teachers treat me fairly.	French Com.	79	76	85	54	77
	Madrid	78	78	88	64	78
	Paris	74	65	79	52	70
	Rome*	-	-	86	63	78
	Wales	76	81	85	42	78
The teachers don't have pupils who are their favourites.	French Com.	40	47	46	31	44
	Madrid	36	42	43	34	40
	Paris	22	40	31	28	33
	Rome*	-	-	45	36	38
	Wales	27	38	32	42	34
The teachers respect all the pupils.	French Com.	64	68	72	44	65
	Madrid	64	65	72	49	65
	Paris	57	55	62	35	56
	Rome*	-	-	77	65	70
	Wales	38	52	46	37	49
The other adults in the school treat the pupils fairly.	French Com.	70	75	75	60	73
	Madrid	73	76	74	73	75
	Paris	60	65	59	58	60
	Rome*	-	-	-	-	-
	Wales	72	68	73	58	70
Pupils are oriented fairly.	French Com.	83	84	89	65	83
	Madrid	82	81	90	70	81
	Paris	73	71	79	57	72
	Rome*	-	-	72	60	70
	Wales	84	85	87	63	84

Table 1 shows the percentage of pupils who declare their agreement (agree very much / agree) with certain statements about the perception of justice in their daily life at school. The table shows the total answers given by students, plus answers given by students from different socio-economic background and from students who have low marks at school. Pupils that belong to a Mid-High status and pupils with low marks are the most dissenting ones.

**Graphic 1. Perception of justice of punishments / rewards**



Graphic 1 summarizes the opinion of pupils about usual receivers of rewards and punishments at school. In all countries, students have a higher agreement with the statement "Teachers always punish the same pupils" than with the statement "Teachers always reward the same pupils".

**Table 2. Relationship between punishments, rewards and marks**

	Area/City	Higher social group	Lower social group	Pupils with good marks	Pupils with low marks	All pupils
When pupils get punished they deserve it.	French Com.	65	69	67	54	67
	Madrid	53	59	63	51	47
	Paris	56	67	64	48	60
	Rome*	-	-	63	63	63
	Wales	51	58	60	29	55
The punishments given are fair.	French Com.	53	45	53	42	51
	Madrid	61	64	68	56	62
	Paris	45	55	50	38	48
	Rome*	-	-	63	64	63
	Wales	50	57	59	28	55
Some pupils are punished more than others for the same offence.	French Com.	70	69	70	70	69
	Madrid	75	69	77	74	71
	Paris	83	69	78	74	76
	Rome*	-	-	52	40	51
	Wales	75	67	71	88	70
It is always the same pupils who get punished.	French Com.	57	54	53	61	56
	Madrid	63	66	60	73	64
	Paris	65	71	68	63	65
	Rome*	-	-	42	45	44
	Wales	73	67	69	65	69
Pupils get praised or rewarded when they deserve it.	French Com.	75	80	81	61	77
	Madrid	72	75	77	73	73
	Paris	75	79	79	67	62
	Rome*	-	-	80	67	74
	Wales	80	84	83	59	82
Pupils get praised or rewarded when they deserve it.	French Com.	59	57	56	63	57
	Madrid	60	54	49	76	56
	Paris	63	67	60	69	63
	Rome*	-	-	44	49	47
	Wales	75	73	75	88	74
It is always the same pupils who get rewarded.	French Com.	37	38	33	55	38
	Madrid	46	52	38	65	49
	Paris	47	51	43	58	48
	Rome*	-	-	33	37	35
	Wales	61	58	56	71	60
The marks given by teachers reflect the effort made by the pupil.	French Com.	80	81	82	70	79
	Madrid	81	80	84	76	80
	Paris	76	80	80	74	79
	Rome*	-	-	81	75	75
	Wales	76	85	84	68	81
Pupils receive fair marks.	French Com.	72	75	77	54	73
	Madrid	71	71	81	64	72
	Paris	72	69	76	62	72
	Rome*	-	-	69	64	64
	Wales	82	81	86	61	82

Table 2 shows the percentage of pupils who agree (agree very much / agree) with the sentences referring to punishments, rewards, and marks.

# Inequalities in skills at the end of compulsory education

A tendency towards widespread unfairness shows up. However, the most important result is that of the marked differences between countries. Not all the education systems are equivalent in their capability to treat pupils fairly.

The concept of fairness or justice in education is far from being universally agreed. Some people consider fairness as *final equality in results or learning*. Others refer to the concept of *equal opportunities*. That concept is less “exacting” than the concept of equality of results. It consists of demanding that each individual should be offered the possibility of attaining the same level, whatever his/her inherited traits and which are therefore imposed on him/her. The important nuance is that the achievement of equal opportunities is compatible with the continued existence of marked inequality in results. Finally, some insist on *extreme situations*, requiring, for example, a measurement of discrepancies between the minority of individuals below a low threshold of results, and the rest of the population.

Table 1 gives a measurement of unfairness as inequality of learning or results. It is based on the measurement of the standard deviation. We can see that the inequality of results is particularly pronounced in Belgium, Germany, and Luxembourg. It appears much lower in the Netherlands, Spain, Ireland, and especially Finland.

In Table 2, we define fairness as equal opportunities, drawing a distinction between the aspects of “socio-economic profile of parents”, “nationality”, and “gender”. Compared with the first of these dimensions, the fairest situation is in Finland, Norway, Italy, and Austria: the pupils’ score in these countries is less dependent on their parents’ profile than elsewhere. On the other hand, countries like the United Kingdom, Germany, Belgium, and Hungary record the highest levels of unfairness from this viewpoint. Table 2 also illustrates the tendency towards unfairness in relation to nationality and gender. Via the correlation index shown at the bottom of Table 2, we can see that inequalities in results according to nationality do not bear any real relation to inequalities according to socio-economic origin. The inequalities in results according to gender are of much lower intensity overall than the others, and the important discrepancies favour the girls. The examination of the data according to discipline reveals that these positive discrepancies in favour of girls are due to girls’ general propensity to perform better in the reading test.

Finally, Table 3 highlights the situation of pupils with a very low score. It gives a measurement of the discrepancy between the average score of these pupils in mathematics and science and those of the rest of the population. The discrepancy becomes smaller in the following order: Finland, Ireland, and Portugal. It is greatest in Luxembourg, Greece, and Belgium.

Sources:  
OECD. 2000. Programme for International Student Assessment (PISA) - <http://www1.oecd.org/els/PISA>

The 15-year old pupils who took part in PISA were tested (once) on their skills in mathematics, reading, and science by means of standardised questionnaires. Their results were aggregated in the form of a score which, while not being perfect, possesses the advantage of being based on an illative theory. In this case, we use the score measurement produced by weighted maximum likelihood, which is better suited to showing disparities between individuals than other score measurements presented in the PISA database.

The socio-economic profile of parents corresponds in this case to the highest International Socio-economic Index of Occupational Status of parents. Pupils with a “very low score” are those whose score is lower than the 1<sup>st</sup> decile of the national distribution for mathematics and science.



**Table 1. Inequality of results. Standard deviation**

Country	Math	Reading	Sciences	Mean
BELGIUM	103	104	108	105
DENMARK	88	98	100	95
GERMANY	99	103	101	101
GREECE	103	97	98	100
SPAIN	92	86	97	92
FRANCE	93	93	102	96
IRELAND	86	93	91	90
ITALY	93	91	98	94
LUXEMBOURG	98	103	99	100
NETHERLANDS*	90	89	96	92
AUSTRIA	95	95	95	95
PORTUGAL	92	95	89	92
FINLAND	83	88	90	87
SWEDEN	95	93	95	94
UNITED KINGDOM	93	101	99	97
SWITZERLAND	97	98	97	98
NORWAY	93	103	98	98

Source: PISA (2000)

\* For this country, the rate of response is too low to guarantee good comparability.

**Table 2. Inequality of opportunities/treatment according to the socio-economic profile of parents, nationality and gender**

Country	Weak/strong parents profiles gap	Nationals/foreigners gap	Boys/girls gap	Standard deviation
BELGIUM	0.98	0.50	0.09	105
DENMARK	0.80	0.32	-0.01	95
GERMANY	0.98	0.38	0.07	101
GREECE	0.71	0.02	0.12	100
SPAIN	0.70	0.28	0.03	92
FRANCE	0.85	0.43	0.05	96
IRELAND	0.74	-0.11	0.07	90
ITALY	0.62	0.23	0.13	94
LUXEMBOURG	0.90	0.61	0.08	100
NETHERLANDS*	0.81	0.32	0.07	92
AUSTRIA	0.65	0.57	-0.04	95
PORTUGAL	0.91	0.09	0.04	92
FINLAND	0.54	0.28	0.20	87
SWEDEN	0.71	0.21	0.11	94
UNITED KINGDOM	0.93	0.09	0.05	97
SWITZERLAND	0.93	0.52	0.04	98
NORWAY	0.61	0.37	0.12	98
<b>Correlation Ratio</b>		0.20	-0.37	

Source: PISA (2000)

These discrepancies are relative: they correspond to absolute discrepancies related to the standard deviation. A poor socio-economic profile corresponds to an index below the 1<sup>st</sup> quartile of the distribution (the weakest 25 %). A strong profile corresponds to an index higher than the 4<sup>th</sup> quartile of the distribution (the strongest 75 %). The data shown corresponds each time to the average of values specific to each of the three subjects presented in PISA (maths, reading and science).

**Table 3. Discrepancy between pupils with a very low score and the rest of the population of pupils (only maths and science)**

Country	Absolute gap	Standard deviation
BELGIUM	2.33	105
DENMARK	2.22	95
GERMANY	2.22	101
GREECE	2.14	100
SPAIN	2.27	92
FRANCE	2.20	96
IRELAND	2.26	90
ITALY	2.26	94
LUXEMBOURG	2.15	100
NETHERLANDS*	2.37	92
AUSTRIA	2.11	95
PORTUGAL	2.14	92
FINLAND	2.37	87
SWEDEN	2.27	94
UNITED KINGDOM	2.21	97
SWITZERLAND	2.15	98
NORWAY	2.23	98

Source: PISA (2000)

Pupils with a “very low score” are those whose score is lower than the 1<sup>st</sup> decile of the national distribution for mathematics and science.

# Weakness and excellence at school

The Netherlands, Finland, Sweden and the United Kingdom distinguish themselves by school excellence indexes higher than the average and by the least important school weakness indexes. Countries such as Greece, Italy, Luxembourg, Portugal as well as Spain present an excellence index lower than the average. Furthermore, these last ones have also the systems that present a high school weakness index. As far as the discrepancy between strong and weak pupils is concerned, it is the most important in Belgium, Germany, Greece, Luxembourg and Portugal.

Three indicators were devised, inspired by an index proposed by Sen (1976), to measure the scale of weakness and excellence at school from PISA scores (OECD, 2001). These indicators of weakness and excellence at school, enable three parameters to be taken into account at the same time: the percentage of weak (or strong) pupils in the education system, the intensity of the weakness (or excellence), and the dispersion of the scores of those weak (or strong) pupils. From these two indicators of weakness and excellence at school, the distance between these two groups of pupils is measured. The analyses relate to the three fields evaluated in PISA (maths, reading, and science).

The values exhibited by the school weakness indicator (Table 1) show a great variety in maths, reading and science. They also enable us to differentiate between countries above the European average for school weakness (Greece, Germany, Italy, Luxembourg, and Portugal) in the three fields evaluated by PISA. Likewise, this school weakness indicator allows a number of countries below the European average to be identified, with regard to the situation of weak pupils. In the three fields taken simultaneously, the education systems of Ireland, the Netherlands, Finland, Sweden, and the United Kingdom seem to perform particularly well, since the index grows with the weakness of the pupils.

Likewise, a school excellence index was calculated (Table 2) to analyse the situation of the strongest pupils. The education systems which stand out because their school excellence indicators are above the European average (Germany, Belgium, the Netherlands, Finland, Sweden, and the United Kingdom) are those which, apart from Germany and Belgium, have the lowest school weakness indicators. This high score can be explained by the three components of the index, but particularly by the first, i.e. the fact of having a higher than average percentage of excellent pupils. Other education systems are characterized by an excellence index below the European average (Greece, Italy, Luxembourg, Portugal, and Spain in particular), once again in the three domains under consideration. This observation can be explained, in the same way, particularly by the first component of the index, i.e. the below-average percentage of excellent pupils. Here we find the education systems with a relatively high school weakness index.

The difference between these two groups (Table 3) can be proposed based on these two indices of school weakness and excellence. It enables the distance separating the situation of the strongest pupils from those with the poorest scores to be measured. It is devised as the total of the two previous indices.

That distance between weak and strong pupils is the most important in the following countries: Belgium, Germany, Greece, Luxembourg, and Portugal. However, this high value may be due to a particularly high school weakness index (as in the case of the Greek education system, for example), while it may be due to a strong school excellence index for others (Germany). Education systems which stand out simultaneously with a high excellence index and a lower weakness index (like that of Finland or Sweden) do not appear as particularly elitist according to the devised indicator. On the contrary, the gap between the weakest and the strongest is lower than the European average.

Sources:

SEN A. (1976): "Poverty : An Ordinal Approach To Measurement", *Econometrica*, vol 44, n° 2, pp 219-231

COHEN SOLAL M., LOISY C. (2001), "Transferts sociaux et pauvreté en Europe", *Solidarité et Santé*, N°4, pp 89-100.

Data: OECD, *International Programme for Monitoring the Learning of Pupils*, 2000

The Sen index was initially designed as an index for measuring poverty. This poverty index has been transposed to the education system as a school weakness and school excellence index, relating to the reading, maths, and science skills of 15 year-old pupils. The discrepancy between these two indices is then given for each country. It takes simultaneously into account the rate of weak/strong pupils in the country, the intensity of the school weakness/excellence and the discrepancy of strong/weak scores. More technical information are available in the annex. The data that enables to evaluate the Sen (T = the percentage of weak pupils in the country, I: the intensity of the weakness of weak pupils and G: the score discrepancy of the weakest pupils) are also available in the annex.

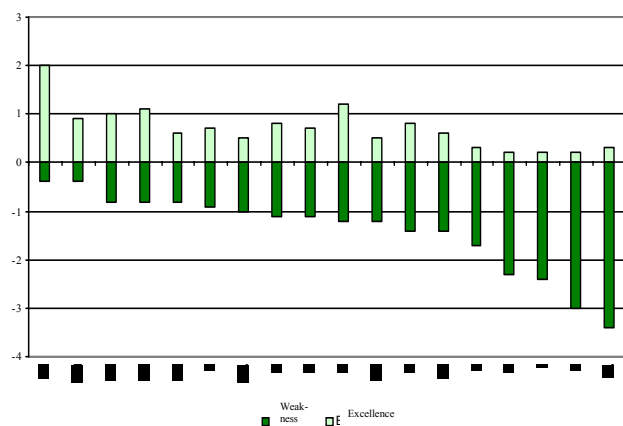
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Table 1. Indexes of school weakness and excellence in maths, reading and science

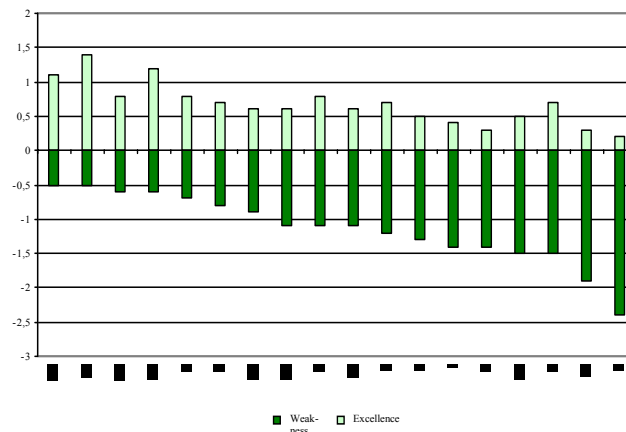
Country	School weakness index			School excellence index		
	Math	Reading	Science	Math	Reading	Science
	S	S	S	S	S	S
BELGIUM	1.2	1.3	1.5	1.2	0.9	0.7
DENMARK	0.8	1.3	1.5	0.6	0.6	0.5
GERMANY	1.4	1.6	1.1	0.8	0.8	0.8
GREECE	3.4	2.0	1.9	0.3	0.3	0.3
SPAIN	1.7	1.0	1.3	0.3	0.3	0.5
FRANCE	0.9	1.1	1.2	0.7	0.6	0.7
IRELAND	1.0	0.7	0.6	0.5	1.1	0.8
ITALY	2.4	1.2	1.4	0.2	0.4	0.4
LUXEMBOURG	3.0	3.2	2.4	0.2	0.2	0.2
NETHERLANDS*	0.4	0.5	0.5	2.0	1.3	1.4
AUSTRIA	1.1	1.3	0.7	0.8	0.6	0.8
PORTUGAL	2.3	1.8	1.4	0.2	0.4	0.3
FINLAND	0.4	0.4	0.5	0.9	1.3	1.1
SWEDEN	1.1	0.8	0.8	0.7	0.8	0.7
UNITED KINGDOM	0.8	0.9	0.6	1.0	1.2	1.2
UE	<b>1.4</b>	<b>1.2</b>	<b>1.1</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>
SWITZERLAND	0.8	1.4	0.9	1.1	0.6	0.6
NORWAY	1.2	1.5	1.1	0.5	0.7	0.6

\* For this country, the rate of response is too low to guarantee good comparability.

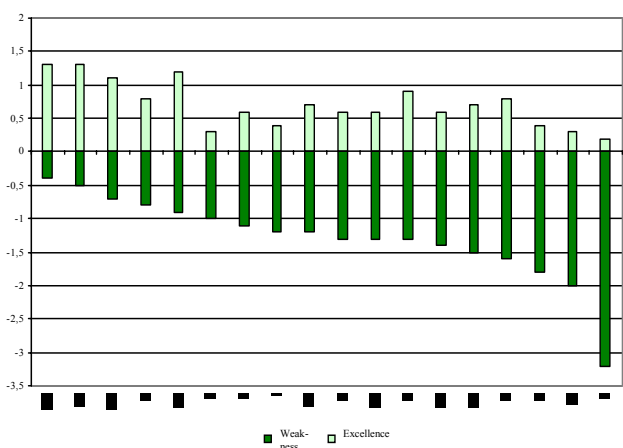
Graphic 1. Distance between school weakness and excellence indexes in maths



Graphic 2. Distance between school weakness and excellence indexes in science



Graphic 3. Distance between school weakness and excellence indexes in reading



The school weakness and excellence indices are reported for each country. The level of each of the columns gives the elitism index of the education system; that index is the sum of the excellence index and the weakness index. For example, the Finnish education system has a quite low elitism index in maths (1.3). In the fields evaluated by PISA, similarities appear in the ranking of education systems, particularly with regard to the countries situated at the extremes (low or high elitism index).

# Civic knowledge of students

In 1999, EU countries showed some differences in the civic knowledge of 14-year-old students. Scores varied between 94.74 and 109.29, which is a significant difference. The EU mean was slightly above the international mean (101.06 instead of 100). Dispersion inside every country also varied, from the less spread distributions (Switzerland and Portugal) to the most spread (Italy, Greece and Finland). These last countries also got the highest scores for the top fifth percentile. In general, high achieving countries got a wider dispersion of results than low achievers. There are also some differences in the results between boys and girls, but those differences are not very big. Belgium (French) has better results for girls and Denmark for boys, but the rest of the

It is not easy to measure personal and social development of young people. This is a complex construct in which different dimensions can be identified. It should also be recognized that some of these dimensions are neither easily accessible nor measurable. Nevertheless, it is a central aspect for assessing the effects of education. That difficulty has forced researchers and policy-makers to look for some proxy measures to assess that complex reality.

One of the most attractive fields related to personal and social development concerns civic knowledge and attitudes. The ways in which young people demonstrate that they are ready to undertake their role as citizens in our democracies is certainly a major field of analysis to assess the effectiveness of education systems. In 1991, a comparative study was started by the International Association for the Evaluation of Educational Achievement (IEA), whose results were presented in 2001. This study provides us with interesting data about civic knowledge and attitudes of 14-year-old students in 28 countries.

This indicator is based on the IEA's Civic Education Study, considering data from EU countries only plus Switzerland. Not all EU countries participated in the study, so making detailed analyses more difficult.

Table 1 shows that EU countries have a slightly higher mean in civic knowledge than the international mean. This is mainly due to low achieving students (P5) getting a higher score than the international fifth percentile. High achieving students (P95) have a similar score to students from other countries. Results vary from one country to another. Finland gets a very high score and Greece and Italy are not far behind. On the other hand, Belgium (French Community) and Portugal got the lowest scores among the EU countries.

The dispersion of results is of special interest in this case. Table 1 and Graphic 1 show that countries differ in the dispersion of results. Switzerland, Portugal, and Belgium (French Community) have closer scores between high and low achievers (P95-P5). All of them have dispersion values below 57. On the other hand, Italy, Greece, Finland, and Denmark have dispersion values over 66. As an average, the EU countries plus Switzerland have a P95-P5 difference slightly over the international mean. It can be said that EU countries have some differences in the dispersion of civic knowledge results, even if those differences are not excessive.

Table 1 shows that there is some relation between dispersion and scores. Low achievers usually have a smaller dispersion (Portugal), while high achievers usually have a wider dispersion (Greece, Italy, Finland).

Table 2 shows differences existing between male and female students. There are some countries in which girls do better than boys, as is the case in Belgium (French Community). On the contrary, in some other countries boys do better than girls do (Denmark, Switzerland). As an average, the EU countries plus Switzerland do not show significant differences between boys and girls. Gender differences are in all cases not very important, nor significant. At that age, results are not that different between boys and girls.

**Sources:**  
Torney-Purta, J., Lehmann, R., Oswald, H. and Schulz, W. (2001): *Citizenship and Education in Twenty-eight Countries. Civic Knowledge and Engagement at Age Fourteen*, Amsterdam, IEA.

Data used for preparing this indicator come from the Civic Education Study promoted by IEA. The study started in 1994 and lasted until 2001. The main data collection was done in 1999. The target population was defined as 14-year-old students, even if mean ages varied between 14.1 (Belgium – French Community) and 15.3 (Hong Kong). The Data was collected through a test of civic knowledge and attitudes via a survey using questionnaires completed by students, teachers, and schools. Samples included between 112 and 185 schools per country. Civic knowledge scores were calculated through responses given to a test of 38 questions, 25 of which refer to knowledge of content and 13 to skills in interpretation. All of them were presented in a multiple-choice format.

Table 1. Civic Knowledge at Age 14 (Scores and percentiles)

Country	Mean	ES	P5	P95	P95 - P5
BELGIUM (French Com.)	95	0.94	70	127	57
DENMARK	100	0.54	69	134	65
GERMANY	100	0.50	74	135	61
GREECE	108	0.76	76	145	68
ITALY	105	0.77	77	146	69
PORTUGAL	96	0.73	73	127	55
FINLAND	109	0.68	79	145	66
SWEDEN	99	0.78	72	134	62
UNITED KINGDOM (England)	99	0.62	73	135	62
SWITZERLAND	98	0.80	74	128	54
International Mean	100	0.16	71	135	61
EU Mean	101	-	74	136	63

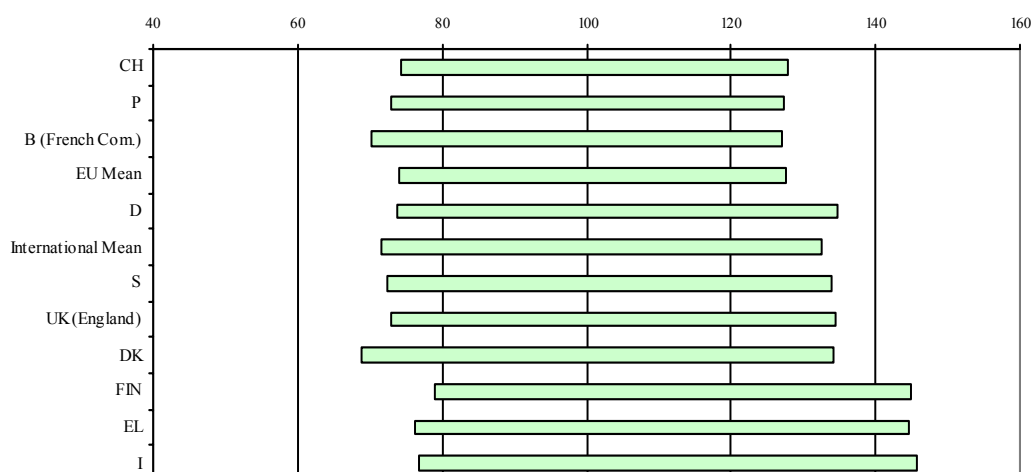
Table 1 shows the mean scores obtained at age fourteen in Civic Knowledge. It also includes average scores for percentiles 5 and 95 and the difference between them. In general, the higher scores correlate with the wider dispersions. Differences among EU countries are not excessive, but significant in some cases.

Table 2. Civic Knowledge at Age 14: Gender differences

Country	Mean Scores for Girls	Mean Scores for Boys	Difference Value
BELGIUM (French Com.)	97	93	5
DENMARK	99	102	-3
GERMANY	99	101	-1
GREECE	109	107	2
ITALY	106	104	2
PORTUGAL	96	97	-1
FINLAND	110	108	2
SWEDEN	100	99	1
UNITED KINGDOM (England)	99	100	0
SWITZERLAND	97	100	-2
International Mean	100.4	99.7	0.7
EU Mean	101.7	101.2	0.5

Table 2 shows gender differences between boys and girls in Civic Knowledge at age fourteen. In some countries boys do better than girls do (Denmark, Switzerland), while in others girls do better than boys do (Belgium – French Community, Greece, Italy). The differences are not very high, the EU mean being close to 0.5.

Graphic 1. Civic Knowledge at Age 14: Dispersion from percentiles 5 to 95



Graphic 1 shows country dispersions in Civic Knowledge scores between the lowest and highest achievers. A longer bar means a wider dispersion of results. Bars placed more to the right side tend to be longer, showing that high results correspond to wider differences.

# Inequalities in school careers

**In Germany, Austria, and Portugal, the educational systems are homogenous: a large majority of students leave at the same level of the educational system. In Finland, Sweden, and the Netherlands, the influence of social origin on school career is particularly low. The proportion of pupils with a very short school career is lowest in Scandinavian countries and Switzerland.**

Qualifications are the most tangible result of schooling. They are used by many contacts, including employers, to form an idea of an individual's capabilities. They confer prestige, income, and other social benefits. Therefore, researchers, those responsible for education systems and citizens themselves are most attentive to inequalities in school careers. Inequalities between individuals, even if they do reflect their respective educational merits, may be perceived as unfair if they threaten social cooperation. The dispersion in duration of theoretical school careers as designated by qualifications would be a good indicator of this. In the absence of a way of calculating this, one can approach it via the dispersion of the actual duration of schooling, including grade-repeating, proposed in section B.1.1, or via the *homogeneity of school careers* (col. 1): the school systems where a large majority of young people leave at the same level produce a category within which many individuals may feel equal. This is the case in Germany, Austria, Switzerland, and Portugal. On the other hand, in Belgium and the United Kingdom, school careers are less homogenous.

The inequality of school careers between groups is a good clue to the inequality of opportunities, even if it is not measured perfectly. The *increased risk of leaving the school system very early* (col. 2) for children in disadvantaged categories is particularly high in Belgium and particularly low in Finland and Sweden. On the other hand, the *increased chances of having a long school career* (col. 3 and 4) for children of privileged categories are high in Italy and Germany, and low in Finland, the Netherlands, and Sweden.

In the majority of the European Union Member States, *girls* go on to higher education more often than *boys* do (col. 5). That is not the case in the education systems of the Germanic countries (Germany, Austria, Luxembourg) and Switzerland. The advantage held by girls is particularly pronounced in Finland and Portugal. The education systems that are closer to equality on this point are the Netherlands and the United Kingdom.

The minimum career necessary to have reasonable prospects of finding work and not being threatened with social marginalization probably differs from one country to another. However, if we consider that *leaving school before the second cycle of secondary education* (col. 6) must entail a risk in this respect, it is Portugal that has the highest proportion of pupils who run that risk, followed by, to a lesser extent, Spain, Italy, and Luxembourg; in Switzerland and the Nordic countries (Denmark, Norway, Finland, and Sweden) the proportion is the lowest. These indicators show that certain countries appear egalitarian or inegalitarian depending on the criterion under consideration. For instance, the educational system of Switzerland may be considered egalitarian because few students leave early, but, at the same time, as inegalitarian because girls have less access to tertiary education than boys. However, we can observe that two countries are mentioned at least twice among the most egalitarian countries, without ever being mentioned among the most inegalitarian (Netherlands and Sweden) and that two countries are in the opposite situation (Belgium and Italy).

## Sources:

(1), (5), (6): OECD, *Education at a Glance*, 2002.

(4): Shavit, Y. and Blossfeld, H. P., 1993, *Persistent inequalities*, Westview Press, Boulder; Duru-Bellat, M. and Kieffer, A., 1999, *La démocratisation de l'enseignement revisitée*, Cahiers de l'IREDU, Dijon.

(2) and (3): Iannelli, C., 2002, *Parental Education and Young people's educational and Labour Market Outcomes: A comparison across Europe*, in Kogan, I. and Müller, W., *School to Work transition in Europe*, Mannheimer Zentrum für Europäisches Sozialforschung.

Col (1): The modal (i.e. most frequent) level of training attained by individuals from 25 to 34 years of age is one of the following three: before the second cycle of secondary education (ISCED 1 or 2), second cycle of secondary education (ISCED 3 or 4), tertiary (ISCED 5 or 6). It is the first in Spain, Luxembourg and Portugal, the third in Ireland, and the second in the other countries.

Col (2) to (5): The same value of the ratio in two countries may relate to two very different quantities. So in col (5), the 130 for Italy corresponds to schooling of 13% of women and 10% of men, while the 133 by Norway corresponds to 40% of women and 30% of men. The basic data is shown in the methodological annex.

Col (2) and (3): the population consists of young people between 15 and 35 years of age in 2000, who left school for the first time in the previous 10 years (5 years for Finland and Sweden). These indicators show the way school functioned between 1970 and 2000.

Col (4): See the methodological annex.



Table 1. Inequalities in school career

Country	Inter-individuals inequalities	Inequalities between groups				Proportion of pupils below the threshold of competences
	Percentage of individuals from 25-34 year-olds having reached the modal level of education (2001)	Early drop out whom parents received short/long education (2000)	Ratio of chances to obtain a tertiary degree related to parents education level (2000)	Influence of social origin on the highest educational level attained	Percentage of tertiary graduate women from 25-34 year-olds, linked to the same percentage for men (2001)	Percentage of 25-34 year-olds who have left before upper secondary education (2001)
	(1)	(2)	(3)	(4)	(5)	(6)
BELGIUM	39	8.7	3	-	118	25
DENMARK	57	-	-	-	136	13
GERMANY	63	-	-	26 to 28 %	87	15
GREECE	49	3.3	2.3	-	128	27
SPAIN	43	3.6	2	-	122	43
FRANCE	43	4.3	2.3	20%	115	22
IRELAND	48	-	-	-	111	27
ITALY	45	3.5	6.8	26 to 28 %	130	43
LUXEMBURG	41	-	-	-	88	41
NETHERLANDS	48	-	-	11%	96	26
AUSTRIA	68	2.4	2.9	-	87	17
PORTUGAL	68	-	-	-	170	68
FINLAND	49	1.6	1.1	-	153	13
SWEDEN	54	1.8	1.8	-	114	9
UNITED KINGDOM	38	-	-	17%	97	32
SWITZERLAND	66	-	-	-	48	8
NORWAY	58	-	-	-	133	7

- (1) In Belgium, the educational level at which 25-34 year-olds most frequently left school is the second cycle of secondary education, which is, in Belgium, the modal level of education for this age bracket. 39% of individuals in this age bracket left at that level.
- (2) In Greece, 20% of children whose parents left school before the second cycle of secondary education, i.e. at ISCED levels 1 or 2, leave school at those same levels ISCED 1 or 2, while that is the case of only 6% of children whose parents attended higher education, i.e. ISCED levels 5 or 6. The indicator is  $20/6 = 3.3$ .
- (3) Among two young people who have left the education system in Spain recently, the first of parents who attended higher education, the second of parents who left school before the second cycle of secondary education, the situation where the former has a higher education degree and the latter does not is twice as likely as the other way around. The indicator is the odd ratio, in this case 2.0.
- (4) The social origin of pupils, defined by the profession and the highest level of qualifications achieved by their father, explains, for recent cohorts in France, approximately 20% of the variation in educational level attained by pupils at the end of their school career.
- (5) In Denmark, 34 % of women from 25 to 34 years of age have received higher education compared with 25% of men in the same age bracket. The indicator is  $34,100/25 = 136$
- (6) In Spain, 43 % of individuals from 25 to 34 years of age left the education system before the long cycle of secondary education (ISCED 1 or 2).

# Occupational attainment by educational level

The *ad hoc module on transition from school-to-work* from the *EU Labour Force Survey* (EU LFS) was used to analyse the influence of parental education and young (15-35 years old) people's educational attainment on early occupational status in 12 European countries (8 in Table 1 and 4 new EU members, see the annex).

We are not dealing here with a social mobility indicator, but a status attainment indicator. Actually, mobility indicators always regard inequalities among social groups (with different social origins), while in this case inequalities among individuals are measured. For this reason, social origin is not included in the construction of this indicator.

The table is based on data reported in Iannelli (2002, Table 1 and Figures 2-3), concerning young people who left education for the first time in the previous 10 years (5 years for Finland and Sweden). Educational attainment has been recoded into three levels. Young people's occupational status is measured by the International Socio-Economic Index of Occupational Status (ISEI), ranging from 16 (the lowest level) to 90 (the highest level), proposed in Ganzeboom, De Graaf and Treiman (1992). The proposed indicator is the Pearson Correlation Ratio (PCR), reported in the last column of the table (see below).

The comparison among twelve European countries in the Table and in the annex allows the detection of differences in the level of mean dependence represented by the Pearson Correlation Ratio. The strength of the association in Hungary, Slovenia, Belgium, and Romania is relatively strong; while it is weaker in the Scandinavian countries, Austria and Slovakia. France and the Southern European countries are in the middle.

Indeed, for the highly educated people the disparity ratio of reaching the highest occupational status is 10,1 in Italy, 5,5 in Spain, 2,6 in the United Kingdom, while, substantially, for them the disparity ratio of falling into the lowest occupational class is the same in all the three countries: 0,6 in Italy and Spain, 0,7 in United Kingdom.

It is worth noting that previous comparative research (Shavit & Müller, 1998) found the strongest link between education and ISEI in Germany, Switzerland and Netherlands, the weakest one in the United Kingdom and the United States, with Sweden, Italy and France in the middle.

Sources:  
European Union Labour Force Survey, Eurostat (2000).

In the last column of the table, the Pearson Correlation Ratio (PCR) is defined as the square root of the ratio between the variance of the means of the ISEI index respect to the three educational levels (numerator) and the ISEI sample total variance (denominator). The PCR is a non-negative number less than or equal to one, proportional to the level of mean dependence between the two variables (=0 null dependence; =1 maximum dependence).

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**Table 1. Occupational status (ISEI means) according to highest educational attainment when leaving initial education/training**

Country	Highest educational attainment						Total		Pearson Correlation Ratio*
	Lower secondary or less		Upper secondary		Tertiary				
	ISEI class mean	%	ISEI class mean	%	ISEI class mean	%	%	N	
BELGIUM	32.3	17	36.6	42	57.5	41	100	2930	0.68
GREECE	31.3	15	40.2	58	58.7	27	100	7654	0.63
SPAIN	30.8	35	36.6	22	52.4	43	100	14909	0.6
FRANCE	33.3	20	38	42	53.3	37	100	19444	0.64
ITALY	33.7	29	43.2	56	60	14	100	17331	0.63
AUSTRIA	34.1	15	40.8	74	65	11	100	4632	0.57
FINLAND	35	12	36.6	56	56.6	32	100	3576	0.57
SWEDEN	36.2	14	39	62	58.3	24	100	1872	0.53

\*Pearson correlation ratios are computed slightly modifying the total means.

The PCR is proportional to the level of mean dependence between the two variables (=0 null dependence; =1 maximum dependence).

This table includes only data from the countries in which information on social background (i.e. parents' education) has been established.

When disparity ratio is:

- > 1: greater probability to attain a high occupational category for individuals with the highest educational level.
- = 1: same probability to attain an occupational category for individuals independently on their educational level.
- < 1: greater probability to attain a high occupational category for individuals with the lowest educational level.

# Influence of social origin on occupational status

The figures in the first Table, reported in Iannelli (2002, Table 6), concern young people aged 15-35 who left education for the first time in the previous 10 years (5 years for Finland and Sweden). The data source is the *European Union Labour Force Survey*, 2000 ad hoc module on transitions from school-to-work. The three columns of the Table 1 are the first group of proposed indicators. The first two columns are the International Socio-economic Index of Occupational Status (ISEI) predicted average increase for young people having parents with tertiary education compared to those with parents with secondary education or less, obtained as linear regression coefficients of parents' education respectively in the regression model having as independent variables: only gender and parents' education (Model 1); gender, parents' education and educational attainment of the young (Model 2). Therefore, coefficients in the first column measure the gross effect of parents' education on young people's occupational status and those in the second column measure the direct effect. The indirect effect (mediated through education) is represented by a proxy: the relative reduction (in percent) of the effect of parental education of Model 1 to Model 2.

The figures reported in the second Table are based on the *European Community Household Panel Survey*, 1998. They concern young people aged 16-30 living in a family with an employed father. For the reasons already explained (Indicator D.1.1), the characteristics of the sub-sample used give this indicator an experimental and not entirely reliable character.

Since occupational status is a categorical variable here (young people's profession) the effects of the social origin are measured by a multinomial logistic regression, following the same approach adopted for the first Table. The first two columns are estimates representing the proportional increase in the log odds ratio of being in a high professional position (rather than a low position) for young people having parents with a high professional position compared to those with parents with a low professional position. They are obtained by the multinomial regression coefficients of parents' profession respectively in the regression model having as independent variables: only the parents' profession (Model 1); the parents' profession and educational attainment of the young (Model 2). Therefore, as in the first Table, the first column represents the gross effect of the parent's profession on young people's occupational status and the second column the direct effect. The indirect (mediated through education) effect is represented by the reduction (in percent) of the effect of parental profession of Model 1 to Model 2.

In both the following Tables, social origin has an influence on the occupational status of the young. In the first Table, the effect of the parents' education is evident in all the 12 countries but it is usually smaller in the Northern countries and larger in some Eastern countries (Hungary and Romania, in particular) and in Belgium, with the others European countries in an intermediate position. The gross effect is highly correlated both with direct and indirect effects, and a high percentage of the gross effect appears to be mediated by education, especially where the gross effect is large. Direct and indirect effects are also correlated; partial exceptions are Slovenia and Spain where the direct effect is high in respect to the indirect effect. In the second Table, the interpretation is based on the log odds ratio proportional increase, so the effects are expressed on a multiplicative rather than an additive scale. For Italy and Spain the results only partially agree with those in the first Table, the results for the United Kingdom show a very low influence of social origin on young occupational status and a null indirect effect. Other research (Duru-Bellat, Kieffer, 1999) showed less educational inequalities in the United Kingdom than in Italy. In addition, the effect of education on occupational status attainment seems to be lesser in the United Kingdom than in Italy and other European countries (Müller & Shavit, 1998). That allows the hypothesis that the surprising results obtained here for the United Kingdom could be partially due to the aforementioned bias of this sampling.

Sources:  
European Union Labour Force Survey, Eurostat (2000).  
European Community Household Panel Survey, Eurostat (1998).

In the first Table, the effects of parents' education (social origin) on the ISEI index are estimated by OLS regression parameters. Gross, direct, and indirect (mediated through education) effects are measured by parents' education regression coefficients and their percentage reduction when the young educational attainment is included in the model. In the second Table, gross, direct and indirect effects are measured by odds ratios estimates in multinomial logistic regression. For statistical reasons, young people (aged 16-30) are here broken down into only two different educational categories. The highest educational category includes people with a diploma obtained at the end of upper secondary school or a tertiary degree; the lowest one includes individuals with any of the other educational levels (lower than upper secondary). The 7 occupational classes in the EGP schema have been reduced to 3, for statistical reasons.

B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	CH	NO
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**Table 1. Predicted average increase in the occupational status for young people having parents with tertiary education compared to those with parents with lower-secondary education or less**

<i>Country</i>	<b>Model 1 (gross effect)</b>	<b>Model 2 (direct effect)</b>	<b>% reduction of model 1 to model 2 (indirect effect)</b>
<b>BELGIUM</b>	14.45	5.36	62.9
<b>GREECE</b>	16.96	6.96	59.0
<b>SPAIN</b>	14.19	7.49	47.2
<b>FRANCE</b>	11.06	5.25	54.7
<b>ITALY</b>	15.07	6.41	57.5
<b>AUSTRIA</b>	9.05	4.79	47.1
<b>FINLAND</b>	5.99	4.12	31.2
<b>SWEDEN</b>	7.64	3.92	48.7

**Table 2. Predicted proportional increase in the odds ratio of being in a high professional position (rather than a low position) for young people having parents with a high professional position compared to those with parents with a low professional position**

<i>Country</i>	<b>Model 1 (gross effect)</b>	<b>Model 2 (direct effect)</b>	<b>% reduction of model 1 to model 2 (indirect effect)</b>
<b>ITALY</b>	10.2	6.9	32.3
<b>SPAIN</b>	3.6	2.9	19.4
<b>UNITED KINGDOM</b>	1.16	1.16	0.0

# Contribution of the most educated people to the situation of the most disadvantaged

According to these indexes, the most educated people in the Netherlands or Sweden are more likely to serve the long-term expectations of the disadvantaged, while in Italy and Portugal, they are in less of a position to do

On the subject of education, Rawls writes that devoting more attention to the better endowed is only justified if that has the effect “of improving the long-term expectations of the most disadvantaged”. The highly-regarded figures of doctors, lawyers or teachers who put their qualifications at the service of the poor, researchers whose discoveries improve the lives of the poor, show that this principle corresponds to something enduring in the public conscience.

The question of whether inequalities in education are put at the service of the disadvantaged is represented by three different approaches. The inequalities in education are more consistent with fairness in a country where *social transfers* reduce the prevalence of poverty. The most educated people contribute even more to the “long-term expectations” of the disadvantaged if it happens that they *live with them* (form couples, send their children to the same schools). Educational inequalities are more consistent with fairness in a country where the more educated people have practices and values that show a *sentiment of solidarity* with the disadvantaged.

In countries for which data is available, *social transfers* reduce the proportion of households on low incomes to a very variable extent: from 8 % (Greece) to 63 % (Denmark). Two groups of countries stand out from the rest: Greece, Italy and Portugal where the effect of transfers is low, and Denmark and Luxembourg where it is high. The difference between the countries in the north of Europe, where effective social policies reduce inequalities, with the countries in the South, where those policies are absent or are less targeted on the poorest people is clear.

That difference can be found to an extent when we look at social practices (at least at those that we were able to measure) of the most educated people. The percentage of the most educated who *form a family* with someone of a low social level is not high in any country, but it does reach nearly 30 % in Ireland, Norway, and Sweden, whereas the countries where it is lowest are Luxembourg, Spain, Italy, and Portugal. Likewise, the fact of *sending children to school* at secondary level in an establishment mainly attended by pupils of a high social level is greatly increased by the fact of having a higher education degree in Spain and Italy, but only to a low extent in Ireland, the Netherlands, and Denmark.

The most educated people who are activists in *associations inspired by values of solidarity* (associations providing social services, actions at local level on housing, poverty, racial equality, associations of solidarity with the third world or defending human rights) are found in very great numbers in the Netherlands and Sweden, but those numbers dwindle in Germany, Ireland, and Greece.

In all countries, for a very great majority of the most educated, fairness requires that the basic needs of all should be met. Divergences between countries are higher when it is a matter of knowing whether fairness requires that the inequalities should not be too great. In Spain, Greece, and Portugal, the most educated most often respond positively, while in Austria, the Netherlands, and Sweden, they most often respond negatively. Furthermore, it is in Spain, Sweden, and France that the highest numbers of more educated people think that the presence of poor people is explained by social injustice, while in Finland, Greece, and Portugal, fewer of them think in that way.

Overall, it appears, at least according to these indexes, that the most educated people in the Netherlands or Sweden are more likely to serve the long-term expectations of the disadvantaged than those in Italy or Portugal.

## Sources:

(1) *Living Conditions in Europe, Statistical Pocket Book, 2000*, Eurostat. The indicator is calculated according to the *European Panel of Households (1995)*

(2) and (3) Calculations from the *PISA database (2000)*

(4) to (7) Calculations from data in the *European Value Survey (EVS)(1999)*

*International Socio-Economic Index of Occupational Status (ISEI)* is derived from pupils’ responses to questions on their parents’ profession. It was devised for the *PISA* study from proposals by Ganzeboom et al., 1992, *A standard international socio-economic index of occupational status*, *Social Science Research*, (25).

Norway and Sweden did not take part in the *EVS 1999*. For sampling reasons, the calculations for the most educated people were not carried out for Belgium, Denmark, and the United Kingdom.

Table 1. Contribution by the most educated people to the situation of the most disadvantaged

Country	Social transfers (1995)	To live together (2000)		Solidarity values and practices of the most educated people (1999)			
	Percentage of poor people decrease by Social transfers	Percentage of young people whom one parent is very educated and the other "disadvantaged"	Extra chances to attend an advantaged school when one's parents are educated	Social justice requires a limitation of inequalities (%)	Social justice requires that basic needs are met for all (%)	Existence of poor people is due to social injustice (%)	Are members of solidarity associations (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BELGIUM	39	25 (1)	1.3 (0.1)	-	-	-	-
DENMARK	63	25 (1)	1.1 (0.0)	-	-	-	-
GERMANY	30	18 (1)	1.2 (0.1)	29	72	48	5
GREECE	8	19 (1)	1.3 (0.1)	55	86	18	16
SPAIN	31	14 (1)	1.4 (0.1)	53	78	56	19
FRANCE	41	21 (1)	1.3 (0.1)	42	77	50	19
IRELAND	46	27 (1)	1.1 (0.0)	44	78	26	11
ITALY	10	16 (1)	1.4 (0.1)	27	70	40	18
LUXEMBURG	50	9 (1)	1.2 (0.0)	15	64	27	54
NETHERLANDS	50	22 (1)	1.1 (0.0)	11	76	27	70
AUSTRIA	46	16 (1)	1.3 (0.0)	12	66	32	21
PORTUGAL	19	16 (1)	1.3 (0.1)	52	74	23	22
FINLAND	-	17 (1)	1.2 (0.0)	18	64	19	33
SWEDEN	-	29 (1)	1.1 (0.0)	12	74	47	65
UNITED KINGDOM	41	21 (1)	1.2 (0.0)	-	-	-	-
SWITZERLAND	-	17 (1)	1.1 (0.0)	-	-	-	-
NORWAY	-	27 (1)	1.2 (0.0)	-	-	-	-

Except for the "School" column (col. 3), the higher the indicator, the more favourable the behaviour of the most educated adults is towards the most disadvantaged.

- (1) The percentage of people with low incomes is, in the Netherlands, 24 % before social transfers and 12 % after social transfers: the transfers have therefore reduced the number of these people by 50 %.
- (2) Percentage, among 15 year-old pupils with at least one parent holding a higher education diploma (ISCED 5-6), of those whose other parent has a socio-professional status that puts him/her in the lower quarter of the ISEI scale. The standard error is indicated between parentheses.
- (3) Increased chances, if at least one of a pupil's parents has a higher education degree, that he will attend an establishment where over half of the 15 year-old pupils have at least one parent belonging to the upper half of the ISEI scale. The indicator probably overestimates this quantity in countries where 15 year-old pupils whose learning is lagging behind are schooled in different establishments from those who are keeping up (France and Greece, for example). The standard error is shown between parentheses.
- (4) and (5) Among higher education graduates, the proportion of those who, on a scale of 1 to 6, rank as "1" (very important) the criteria "eliminate the serious inequalities in income between citizens", and "guarantee that basic needs are met for all in terms of food, housing, clothing, education and health" to define a fair society.
- (6) Proportion of higher education graduates who answer the question "Why are their poor people in this country?" by saying "because there are injustices in our society" rather than "because they did not have opportunities" or "because of laziness or lack of determination".

# Students’ judgements on the equity of the educational system

The clear majority of respondents felt that everyone received the same quality of education, and this was true for all countries and groups. Most notable, therefore, is the fact that pupils’ reports of their treatment in schools diverge somewhat from the expressed desire (in the previous indicator) for more attention for the less able.

This indicator gives a measure of the students’ estimation of how equitable they perceive their educational system to be (Table 1). The clear opinion across all countries and groups is that schools generally provide the same quality of education for all pupils.

There is also some limited support, especially in France and Spain, for the idea that schools actually provide a better education for the most able. There is almost no support for the idea that schools are providing a better education for the least able.

Therefore, by comparing this with the indicator A.4.2 “Criteria of justice”, in which pupils showed significant support for more attention for the least able, all systems are seen to be failing to meet one specific demand for equity.

Other than in the United Kingdom, there is considerable disparity between the proportion of pupils wanting a system in which less able students receive more attention (around 40 %) and the proportion that experience this in their school (around 5 %, most clearly illustrated in Graphic 1). Conversely, only around 2 % of pupils had reported wanting a system that gave more attention to the most able, whereas around 20 % reported *experiencing* such a system.

This finding, of course, raises the greatest unanswerable question about fairness – is it fairer to have a system that treats everyone the same, or one that seeks to overcome early disadvantage and handicap ? There is a clear difference between the United Kingdom and elsewhere in the pupils’ answer to this underlying question. In the United Kingdom, most pupils want all pupils to be treated the same, and this is largely what they report experiencing. In France, Spain, Belgium, and Italy, more pupils want greater attention for the least able but more pupils also report *experiencing* greater attention for the most able.

Sources:  
European pilot survey about feelings of justice at school.  
Questionnaire for pupils.

.....  
Data provided by a survey among 13-14 year old pupils from five European countries: Belgium (French Community), Spain (Madrid), France (Paris), Italy (Rome), and the United Kingdom (Wales), between November and December 2002.  
In the United Kingdom and Italian samples, there were relatively few students who stated that they were born outside the test country (2.3 % for United Kingdom and 5.0 % for Italy). The results for this category should be treated with caution.  
There was a relatively high proportion of students who report that they receive low marks in school in Spain (22.9 % of the sample) and a low number in the United Kingdom (2.7 % of the sample). It is important to remember that the students themselves were asked to provide this estimate; it was not based on actual performance data.  
In order to determine the occupational category, the 10 categories coded in the questionnaire were amalgamated into 2. The higher occupational status was used in this analysis.

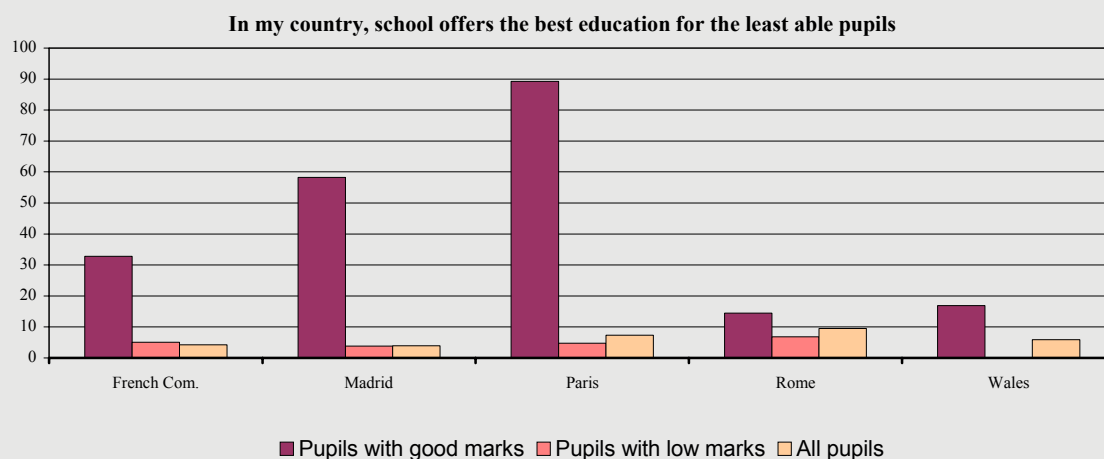
\* Data on non-native pupils are not available for France.  
\*\* Data on social category are not available for Italy.

Table 1. Experience of equity at school

	Area/City	Higher social group	Lower social group	Boys	Girls	Non-natives pupils	Pupils with low marks	All pupils
In [country of test], school offers ...								
The best education for the most able pupils.	French Com.	17.0	14.5	16.2	17.2	25.7	31.6	16.5
	Madrid	20.9	19.8	22.1	18.5	10.6	19.9	20.3
	Paris*	21.6	15.0	21.8	18.5	-	22.9	20.0
	Rome**	-	-	14.5	13.9	9.7	9.1	14.5
	Wales	18.3	14.0	17.9	17.2	29.4	44.4	16.9
The same quality of education for all pupils.	French Com.	78.9	80.9	79.4	79.0	67.9	63.3	79.3
	Madrid	75.1	77.2	73.7	77.9	85.0	76.3	75.8
	Paris*	72.5	73.8	71.8	74.3	-	72.3	72.7
	Rome**	-	-	76.0	77.5	80.6	84.1	76.0
	Wales	76.2	80.0	76.1	77.6	64.7	55.6	77.2
The best education for the least able pupils.	French Com.	4.1	4.6	4.5	3.8	6.4	5.1	4.2
	Madrid	4.0	3.0	4.2	3.6	4.4	3.8	3.9
	Paris*	5.9	11.2	6.5	7.1	-	4.8	7.3
	Rome**	-	-	9.5	8.6	9.7	6.8	9.5
	Wales	5.5	6.0	6.0	5.1	5.9	-	5.9

Table 1 shows the percentage of students who chose each statement as corresponding the most with their opinion. The table shows the responses for all students, plus those for students from the higher and lower occupational groups, both sexes, non-native students (those who state that they were born outside the country of the test), as well as for those who feel that their marks in school are low.

Graphic 1. Judgements on the equity of education systems





# Student’s expectations towards the educational system

In the opinion of the majority of the students in the five countries included in this study, effort and work is the most important determinant of scholastic progress, with more than 95 % of students in agreement, affording strong reliability given the unanimity in the

If students’ attitudes translated in work and effort at school appear in the first position, the quality of school education comes second. Although the percentages of agreement for the second item are somewhat lower than for the first one, they exceed 80 % in all cases. The help that students receive at home is valued similarly in Belgium (86 %), Spain (84 %), and the United Kingdom (84 %). France presents a somewhat lower percentage (79 %) and Italy presents a much lower number of students (43 %) who agree with this proposition.

Intelligence is valued differently according to the country, with a difference of 20 points from one extreme to the other: 43 % for France and 69.5 % for the United Kingdom. Finally, the level of schoolmates’ competence as an important element for scholastic progress is taken into consideration. Again, Italian students are those who value this alternative the least, with a mere 14 % in agreement. On the contrary, almost half of the students from the United Kingdom surveyed are of the opinion that schoolmates’ level of competence is important for their own progress.

Male and female students follow the general pattern, but with a shade of difference that should be highlighted: in all the countries females present somewhat higher percentages in the valuation of effort as a determinant of progress than males, while males always surpass females in the valuation of intelligence. In the first case, though gender differences are very small, since they always exceed 90 % in agreement, we find that by a few tenths of a point, female students have a higher consideration of effort and work. In the second case, the valuation of intelligence, male students highlight this criterion more vigorously than their female counterparts do. This tendency can be appreciated especially in Italy, France, and Spain, as pointed out in graphic 2.

Socio-economic conditions do not influence the opinion represented in these responses. Students of all social conditions maintain that personal effort and work is the main contributor for progress at school. The differences show hardly any discrepancies and a pattern of behaviour related to social status cannot be identified (Table 1). This unanimity disappears for other questions. For example, the second most quoted option “educational quality” is especially appreciated by students of a high status and good marks, just as “support received at home”.

Personal effort, quality education, and family support seem to be the triad for predicting scholastic success. Even those students with poor academic results maintain this order in their evaluation. The responsibility for progress is therefore shared among the students themselves (effort), the academic institution (quality education), and the family (support at home).

Sources:  
European pilot survey about  
feeling of justice at school.  
Questionnaire for pupils

Data provided by a survey among 13-14 year old pupils from five European countries: Belgium (French Community), Spain (Madrid), France (Paris), Italy (Rome), and the United Kingdom (Wales), between November and December 2002. In the United Kingdom and Italian samples, there were relatively few students who stated that they were born outside the test country (2.3 % for United Kingdom and 5.0 % for Italy). The results for this category should be treated with caution. There was a relatively high proportion of students who report that they receive low marks in school in Spain (22.9 % of the sample) and a low number in the United Kingdom (2.7 % of the sample). It is important to remember that the students themselves were asked to provide this estimate; it was not based on actual performance data. In order to determine the occupational category, the 10 categories coded in the questionnaire were amalgamated into 2. The higher occupational status was used in this analysis.

\* Data on social category are not available for Italy.

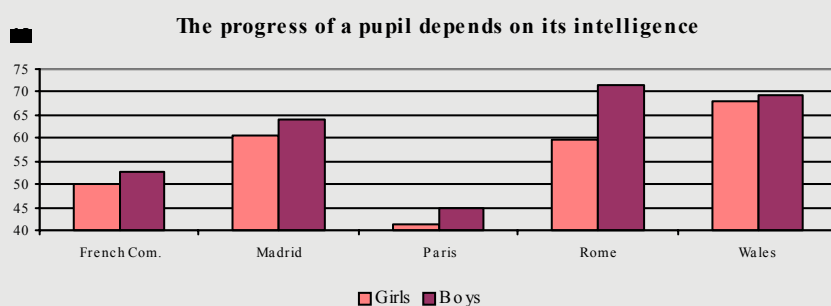
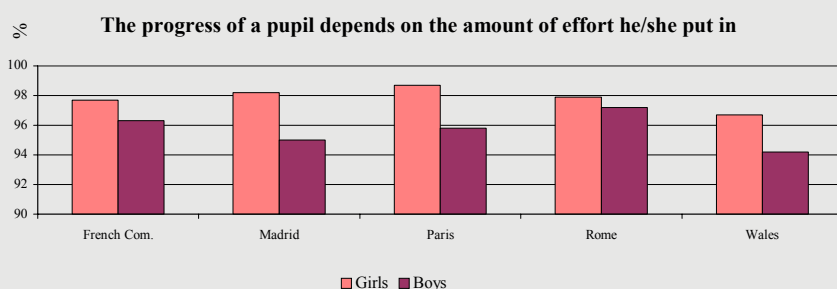


**Table 1. Expectations towards the educational system. Percentage of pupil's agreement with the following sentences: "The progress of a pupil depends on ..."**

	Area/City	Higher social group	Lower social group	Pupils with good marks	Pupils with low marks	All pupils
the amount of effort he/she puts in.	French Com.	96	98	98	88	97
	Madrid	97	97	98	96	97
	Paris	98	97	99	91	97
	Rome*	-	-	97	96	97
	Wales	97	96	97	84	96
his / her intelligence.	French Com.	50	53	51	46	51
	Madrid	60	64	63	64	63
	Paris	36	56	38	52	43
	Rome*	-	-	68	60	66
	Wales	70	66	71	58	69
the standard of the other pupils in his/her class or school.	French Com.	35	32	32	34	34
	Madrid	41	43	40	46	37
	Paris	41	38	38	36	42
	Rome*	-	-	13	14	15
	Wales	48	50	50	50	49
the quality of teaching he/she receives at school.	French Com.	91	86	90	80	88
	Madrid	85	81	86	76	83
	Paris	91	80	91	76	86
	Rome*	-	-	90	76	85
	Wales	91	89	93	79	89
the quality of the support he/she receives at home.	French Com.	88	84	86	84	86
	Madrid	84	85	88	80	84
	Paris	84	73	82	74	79
	Rome*	-	-	45	43	43
	Wales	88	81	86	74	84

Table 1 shows the percentage of pupils who declare their agreement (very much agree / agree) with the importance they give to different components of progress. The table shows the total answers given by students, plus answers from a different socio-economic position and from students who have low marks. Pupils belonging to a low status and pupils with low marks are the most dissenting ones.

### Graphics 1 and 2. Pupil's agreement with the importance of work and intelligence for progress at school, by gender



Graphics 1 and 2 show the answers given by girls and boys, in the five countries, about the importance of effort and intelligence to be successful at school. In all cases, girls and boys give more importance to effort, but girls insist on effort, more than boys do and boys appreciate intelligence more than girls do.

# Students' feelings towards justice in the educational system

With the same capacities and willpower, students have the same possibility of obtaining good marks at school: this is the opinion of three out of every four students surveyed. They believe that school is a neutral field that does not penalize students in a similar situation in order to achieve academic success. To the question whether the academic preparation they receive is sufficient for living in today's society, the collected data are less

The purpose of this indicator is to discover students' opinions concerning justice in the educational system in accordance with the repercussions of their schooling on academic and social life. Students maintain two very clear positions. At school, students have the same possibilities of achieving good marks if they apply themselves with the same capacity and willpower. Outside school, in society, neither the knowledge acquired, nor the preparation received by the students, independent of their academic behaviour, can be considered acceptable. In the first case, students are insufficiently prepared for subsequent development. In the second case, differences in preparation between the students considered as being good or poor persist despite the long period of schooling in which, in theory, they have received the same training.

Students from Mediterranean countries (France, Italy and Spain) are more critical than their Belgian and British counterparts. At least two out of every three consider that the difference in students' preparation is important, as opposed to the more trivial opinions of the rest (Table 1).

This opinion, except for the case of Belgium, is maintained with greater emphasis by males, though the differences are not especially important (Graphic 3).

A greater separation arises when we take into account socio-economic conditions. In all the countries, belonging to a low status is related to a stronger agreement with the proposition "At the end of the secondary school, the gap between the most and least able pupils is not very important". However, this is not the case, when considering positively the possibilities of equal opportunities at school (Table 1).

We might consider that the opinion of students with poor marks has a direct relation to the reprobation towards the different quality of preparation at school, but this is not the case: their opinions are not significantly different from the rest. Students question the first proposition more than the other propositions, with a less favourable opinion as to the equality of opportunities for obtaining higher marks. For pupils with low marks, it is not evident that students achieve the same results at school, although their determination and capacities are similar, despite the fact that students with good marks consider more often this to be the case.

Sources:  
European pilot survey about feelings of justice at school.  
Questionnaire for pupils.

Data provided by a survey among 13-14 year old pupils from five European countries: Belgium (French Community), Spain (Madrid), France (Paris), Italy (Rome), and the United Kingdom (Wales), between November and December 2002. In the United Kingdom and Italian samples, there were relatively few students who stated that they were born outside the test country (2.3 % for United Kingdom and 5.0 % for Italy). The results for this category should be treated with caution. There was a relatively high proportion of students who report that they receive low marks in school in Spain (22.9 % of the sample) and a low number in the United Kingdom (2.7 % of the sample). It is important to remember that the students themselves were asked to provide this estimate; it was not based on actual performance data. In order to determine the occupational category, the 10 categories coded in the questionnaire were amalgamated into 2. The higher occupational status was used in this analysis.

\* Data on social category are not available for Italy.

B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	CH	NO
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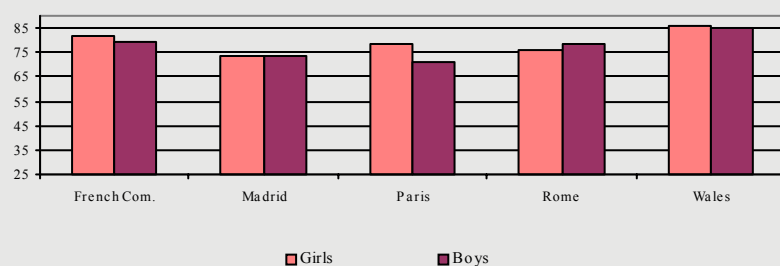
**Table 1. Feeling of justice towards the educational system.**  
**Percentage of pupil's agreement with the following sentences: "Today in your country ..."**

	Area/City	Higher social group **	Lower social group **	Pupils with good marks	Pupils with low marks	All pupils
pupils who have the same abilities and the same willingness to do well at school have the same chances of success.	French Com.	79	82	82	64	80
	Madrid	72	74	76	69	71
	Paris	72	77	78	69	75
	Rome *	-	-	78	72	77
	Wales	84	87	88	68	85
all pupils leave school with sufficient skills to live in a modern society.	French Com.	58	60	60	55	59
	Madrid	42	43	39	39	42
	Paris	32	44	34	29	36
	Rome *	-	-	54	43	53
	Wales	68	64	68	50	67
at the end of the secondary school, the gap between the most and the least able pupils is not very important.	French Com.	47	49	47	44	47
	Madrid	28	36	25	37	32
	Paris	22	33	27	23	28
	Rome *	-	-	29	39	33
	Wales	37	40	35	47	40

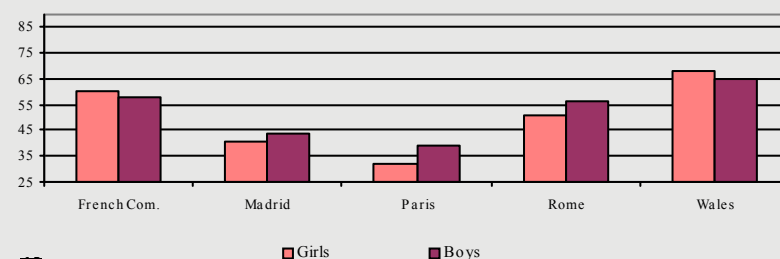
Table 1 shows the percentage of pupils who declare their agreement (very much agree / agree) with the feeling of justice towards the educational system. The table shows the total answers given by students, plus answers from different socio economic position and from students who have good and low marks.

**Graphics 1, 2, and 3. Feeling towards justice in the educational system, by gender.**  
**Pupil's agreement with the following sentences: "Today in your country ..."**

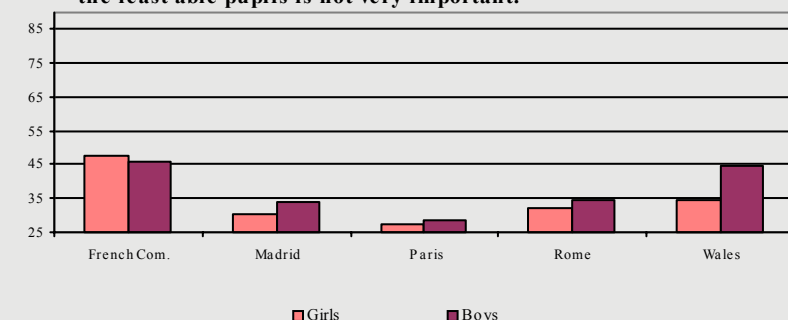
**Pupils who have the same abilities and the same willingness to do well at school have the same chances of success.**



**All pupils leave school with sufficient skills to live in a modern society.**



**At the end of the secondary school, the gap between the most and the least able pupils is not very important.**



Graphics 1, 2, and 3 show the answers given by girls and boys in the five participating countries about the possibilities of obtaining equal opportunities, competencies, and preparation.

# Tolerance/intolerance

**The association found between tolerance toward internal groups and educational level is not very clear. The relationship to education is more significant when foreign groups are concerned: here the higher the educational level, the higher the**

This indicator measures the level of tolerance/intolerance for the citizens of European countries and its relation to education. This component of educational effectiveness is often neglected but is also a relevant aspect for equity, provided that it would be proved that under-education is frequently associated with intolerant attitudes which weaken social cohesion. The source of data is the World Values Survey – Second Wave (1990), Third Wave (1997).

If the average level of tolerance for the European countries would be positively correlated with the indicators concerning the equity of their educational systems, it could be sustained that equity in education has a favourable impact on social life.

Similarly, if the level of tolerance would be positively correlated with the level of education, it could be asserted that inequalities in education are in favour of disadvantaged groups as internal and external minorities, according to the Rawlsian principle of difference.

The average attitudes towards internal and external groups are shown in Table 1, which includes all the EU countries plus Switzerland and Norway.

A clear association between the level of educational equity (as measured by indicators used in this report, see Table 2 p. 99) does not appear, likely because many other variables influence this relationship. Generally, the level of intolerance appears to be low towards both considered targets (see Table 1).

To measure the relationship between education and tolerance/intolerance attitudes, we use an association index (Gamma of Goodman and Kruskal). This is done for all EU countries participating in the World Value Survey that include the level of education variable in their questionnaire, and for Norway and Switzerland.

The association found between tolerance toward internal groups and educational level is not very clear (see Table 2). Germany (old and new *Länder*) and Norway present a low level of association: highly educated people are a little bit more tolerant toward the internal groups. It is only in Spain that the educational level seems to have a significant impact on citizens' attitudes. It is likely that the internal categories considered here are perceived as a concrete risk both by lower and by highly educated European citizens.

The relationship to education is more significant and general when foreign groups are concerned: here the higher the educational level, the higher the tolerance (see Table 3). All the countries analysed, except Finland, present a very clear association between high educational level and tolerant attitudes toward foreign people.

From this evidence, it could be concluded that education hampers intolerance only when it results from a prejudice rather than from a concrete risk.

## Sources:

World Values Survey – Second Wave (1990).

World Values Survey – Third Wave (1997).

To build this indicator, we use the following question from the World Values Survey: "On this list are various groups of people. Could you please sort out any that you would not like to have as neighbours?" We choose the following variables to build on the indicator: 51 (People with a criminal record), 52 (people of a different race), 53 (Political extremists), 54 (Heavy drinkers), 55 (Emotionally unstable people), 56 (Muslims), 57 (Immigrants/foreign workers), 58 (People who have AIDS), 59 (Drug addicts), 60 (Homosexuals). We assign the following values for each answer: 1 for "mentioned"; 0 for "not mentioned". We could have a score for each EU citizen from 0 (tolerant) to 10 (intolerant). Five categories were built as follow: 0-2 score = very tolerant; 3-4=tolerant; 5-6=rather tolerant; 7-8=intolerant; 9-10=very intolerant. For a first rough approach, the index is split in two: an index of tolerance toward internal groups (matching variables 51, 53, 54, 55, 58, 59 and 60); and an index of tolerance toward foreign groups (matching variables 52, 56 and 57).

Both these values are associated with educational levels by using the Gamma of Goodman and Kruskal. This association measure presents values between -1 and +1, and it is significant starting from 0.1.

Three educational levels are retained: low (5/6 years of schooling), middle (8/9 years), high (more than 9 years).

Table 1. Tolerance/intolerance patterns toward internal groups

Country	Towards internal groups				Towards foreign groups			
	<i>Very intolerant</i>	<i>Intolerant</i>	<i>Tolerant</i>	<i>Very tolerant</i>	<i>Very intolerant</i>	<i>Intolerant</i>	<i>Tolerant</i>	<i>Very tolerant</i>
BELGIUM	8.9	19.6	35.7	35.9	10.1	9.1	15.3	65.5
DENMARK	2.3	9.3	33.3	55.0	5.0	4.1	10.7	80.2
WEST GERMANY	2.2	14.7	44.5	38.6	0.8	2.2	8.9	88.1
EAST GERMANY	3.3	17.1	50.6	28.9	1.9	3.7	16.4	78.1
SPAIN	8.8	18.1	34.1	39.1	3.5	3.2	10.4	82.9
FRANCE	4.9	15.8	34.0	45.3	6.2	5.4	10.3	78.1
IRELAND	10.7	23.0	38.7	27.6	2.1	3.5	11.1	83.3
NORTH IRELAND	10.9	26.0	31.9	31.3	3.3	5.6	7.9	83.2
ITALY	17.4	23.5	30.7	28.3	6.7	4.7	10.3	78.3
NETHERLANDS	7.3	19.2	47.2	26.4	4.0	4.1	10.0	81.8
AUSTRIA	13.2	24.5	35.6	26.7	5.1	5.3	16.4	73.1
PORTUGAL	24.9	26.8	24.6	23.8	5.5	8.4	13.2	72.9
FINLAND	10.2	22.8	43.7	23.3	7.8	6.6	28.5	57.1
SWEDEN	4.2	16.1	51.7	28.0	2.4	1.7	10.1	85.8
UNITED KINGDOM	11.3	22.6	36.8	29.3	5.2	4.7	10.3	79.8
SWITZERLAND	4.3	15.3	42.8	37.5	5.1	3.4	14.6	76.9
NORWAY	8.6	21.3	50.9	19.1	6.5	4.0	14.6	75.0

Table 2. Association between tolerance/intolerance patterns toward internal groups and educational level (Gamma of Goodman and Kruskal)

	GERMANY old Länder	GERMANY new Länder	SPAIN	FINLAND	SWEDEN	SWITZERLAND	NORWAY
$\gamma$	0.135	0.121	0.202	0.085	0.086	0.087	0.136

Table 3. Association between tolerance/intolerance patterns toward foreign groups and educational level (Gamma of Goodman and Kruskal)

	GERMANY old Länder	GERMANY new Länder	SPAIN	FINLAND	SWEDEN	SWITZERLAND	NORWAY
$\gamma$	0.305	0.225	0.328	0.047	0.339	0.310	0.226

For Tables 2 and 3, the higher the  $\gamma$ , the higher the association between tolerance and educational level. The association is not significant between  $-0.1$  and  $0.1$ .

# Socio-political participation

With regard to the participation in economic and political organizations, the association with the educational level is proven for Spain, Sweden, Finland, and Norway. On the contrary, in Germany (new *Länder* in particular) and Switzerland an inverted association

This indicator measures the level of socio-political participation through membership in different kinds of associations for citizens of European countries. This component of educational effectiveness is often neglected but is also a relevant aspect for equity, considering that if low education were frequently associated with a lack of participation this would weaken the functioning of democracy and of social capital formation.

The source of data is the World Values Survey – Second Wave (1990), Third Wave (1997). Two domains of participation are distinguished here: economic and political organizations and other types of organizations, e.g. voluntary, religious, and recreational organizations (see below).

If the average level of socio-political participation for the European countries would be positively correlated with the indicators concerning the equity of their educational systems, it could be sustained that equity in education has a favourable impact on social life.

The average of the participation in economic and political organizations, and in other types of organizations are shown in the Tables 1 and 2, which include all the EU countries plus Switzerland and Norway.

A clear association between the level of educational equity (as measured by indicators used in this report, see Table 2, p. 99) does not appear, likely because many other variables influence this relationship.

The index of participation in economic and political association is generally very low (Table 1). Participation in other kinds of organizations (voluntary, religious, recreational, etc) results are a little higher (Table 1).

To measure the relationship between education and participation, an association index is used (Gamma of Goodman and Kruskal). This is done for all EU countries participating in the World Value Survey that included the level of education variable in their questionnaire, and Norway and Switzerland.

With regard to the participation in economic and political organizations (Table 2), the association with educational level is proven for Spain, Sweden, Finland, and Norway. On the contrary, in Germany (new *Länder* in particular) and Switzerland an inverted association appears.

With regard to the other types of organization (Table 3), the association is clearer and more linear. For all countries (except Finland that doesn't present a significant association) the higher the education level, the higher the participation.

The following question from the World Values Survey is used here: "Now I am going to read off a list of voluntary organizations; for each one, could you tell me whether you are an active member, an inactive member or not a member of that type of organization?". The following items were retained: 28 (Church or religious organization), 29 (sport or recreation organization), 30 (Art, music or educational organization) 31 (Labour union), 32 (Political party), 33 (Environmental organization), 34 (Professional association), 35 (Charitable organization), 36 (Any other voluntary organization). For each item, there are three possible answers: "active member", "inactive member", and "non member". The SPSS multiple responses set was used to analyse the data and calculate the indexes.

Two indexes are built:

- 1) Participation in economic and political organizations encompass organizations which have some, though sometimes limited, link with the public debate in liberal-democratic countries: labour union, political party, environmental organizations, professional associations;
- 2) Participation in other types of associations: church or religious organizations, sport, recreation, art, music or education organizations, charitable and other kind of voluntary organization.

Both these indexes are associated with different educational levels by using the Gamma of Goodman and Kruskal. This association measure presents values between -1 and +1, and it is significant starting from 0.1.

Three educational levels are retained: low (5/6 years of schooling), middle (8/9 years), high (more than 9 years).

## Sources:

World Values Survey – Second Wave (1990).

World Values Survey – Third Wave (1997).

Table 1. Index of participation in economic and political organizations

Country	In economic and political organizations			In other types of organizations		
	Active	Non active	Not member	Active	Non active	Not member
BELGIUM	2.0	6.3	91.7	5.6	7.2	87.1
DENMARK	2.2	17.9	80.0	4.8	9.0	86.2
WEST GERMANY	4.4	9.0	86.6	16.9	15.3	67.8
EAST GERMANY	4.1	7.1	88.8	10.5	9.8	79.7
SPAIN	3.0	6.9	90.2	9.3	10.6	80.1
FRANCE	2.1	2.1	95.7	5.0	4.1	90.9
IRELAND	1.3	3.8	94.9	5.3	6.9	87.8
NORTH IRELAND	1.2	4.4	94.4	5.1	8.8	86.1
ITALY	2.2	2.5	95.2	4.2	2.4	93.4
NETHERLANDS	2.1	14.9	83.0	8.4	20.6	71.0
AUSTRIA	2.1	7.9	90.0	4.6	5.9	89.5
PORTUGAL	1.4	1.9	96.8	3.8	3.2	92.9
FINLAND	2.4	17.1	80.5	8.7	25.4	65.9
SWEDEN	6.3	20.6	73.1	14.6	16.3	69.1
UNITED KINGDOM	1.5	7.2	91.2	2.7	9.2	88.2
SWITZERLAND	7.2	12.2	80.6	17.0	15.0	67.9
NORWAY	7.1	16.6	76.3	14.1	16.4	69.6

Table 2. Association between participation in economic and political organizations and educational level (Gamma of Goodman and Kruskal)

	GERMANY old Länder	GERMANY new Länder	SPAIN	FINLAND	SWEDEN	SWITZERLAND	NORWAY
$\gamma$	-0.036	-0.314	0.412	0.490	0.427	-0.362	0.346

Table 3. Association between participation in other types of organizations and educational level (Gamma of Goodman and Kruskal)

	GERMANY old Länder	GERMANY new Länder	SPAIN	FINLAND	SWEDEN	SWITZERLAND	NORWAY
$\gamma$	0.166	0.333	0.343	-0.091	0.291	0.193	0.281

For Tables 2 and 3, the higher the  $\gamma$ , the higher the association between socio-political participation and educational level. The association is not significant between  $-0.1$  and  $0.1$ .



# Trust in institutions

**Results show that the association between trust in public institutions and educational level is not so strong, but interesting and, to some extent, unexpected: for some countries the higher the educational level, the lower the trust in public institutions. This association is less significant concerning trust in non-governmental, social**

This indicator measures the level of trust in institutions of the citizens of European countries and its relation with education. This component of educational effectiveness is often neglected but is also a relevant aspect for equity. If low education is associated with mistrust toward political and social institutions, this could weaken social cohesion.

The source of data is the World Values Survey – Third Wave (1997). Two different targets of trust/mistrust attitudes are taken into account: public institutions and non-governmental, social institutions (see below).

If the average level of trust in institutions for the European countries would be positively correlated with the indicators concerning the equity of their educational systems, it could be sustained that equity in education has a favourable impact on social life.

The average of the trust in public institutions and in private, non-governmental, social institutions, are shown in Table 1, which include four EU countries plus Switzerland and Norway.

A clear association between the level of educational equity (as measured by indicators used in this report, see Table 2, p. 99) does not appear, likely because many other variables influence this relationship.

The index of trust in public institutions is higher in Scandinavian countries and Switzerland, and lower in Spain and Germany (Table 1). We find a similar structure for trust in private, non-governmental, and social institutions (Table 2). In general, European citizens seem to have more trust in public institutions than in private ones.

To measure the relationship between education and this kind of attitude, we use an association index (Gamma of Goodman and Kruskal). This is done for all EU countries participating in the World Value Survey that included the level of education variable in their questionnaire, and Norway and Switzerland.

The results show that the association between trust in public institutions and educational level is not so strong, but interesting and, to some extent, unexpected: for some countries where the higher the educational level, the lower the trust in public institutions (Table 3).

The association between educational level and trust is less significant for the private, non-governmental, and social institutions (Table 4).

A possible interpretation of this finding is that a high level of education stimulates a more critical attitude towards public institutions. This appears to be true in particular for Sweden, Finland, and Norway, where the reverse association mentioned is particularly evident. The high level of trust found in these nations seems to corroborate this interpretation. On the contrary, this association is not significant for Spain, Germany, where the general level of trust is lower, and for Switzerland.

The following question from the World Values Survey has been used: "I am going to name a number of organizations. For each one, could you tell me how much confidence do you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?". The following institutions have been retained to build the indicator: 135 (The churches), 136 (The armed forces) 137 (The legal system), 138 (The press), 139 (Television), 140 (Labour unions), 141 (The police), 142 (The central government), 143 (Political parties), 144 (Parliament), 145 (The civil service), 146 (Major companies), 147 (The Green/Ecology movement), 148 (The Women's movement), 149 (The European Union), 150 (The United Nations). The following values have been attached to the answers: 4 for "a great deal"; 3 for "quite a lot"; 2 for "not very much"; 1 for "non at all". The sum of these values is broken down in six categories: very trusting; trusting; low trusting; low mistrusting; mistrustful; very mistrusting.

Two separated indexes have been built:

- 1) Trust in public institutions (items 136, 137, 141, 142, 143, 144, 145, 149, 150);
- 2) Trust in social institutions (all the other items).

Both indexes are associated with different educational levels by using the Gamma of Goodman and Kruskal. This association measure presents values between -1 and +1, and it is significant starting from 0,1.

Three educational levels are retained: low (5/6 years of schooling), middle (8/9 years), high (more than 9 years).

## Sources:

World Values Survey – Third Wave (1997).



Table 1. Index of trust

Country	In public institutions						In private, non governmental and societal institutions					
	Very confident	Confident	Not very confident	Slightly distrustful	Distrustful	Very distrustful	Very confident	Confident	Not very confident	Slightly distrustful	Distrustful	Very distrustful
GERMANY old Länder	6.5	18.8	31.7	21.7	14.8	6.5	0.9	13.0	18.8	24.9	36.3	6.2
GERMANY new Länder	3.0	9.8	24.7	31.0	23.4	8.1	1.4	5.1	17.8	28.0	33.5	14.2
SPAIN	83.0	15.9	23.7	24.1	16.8	11.2	5.7	13.3	20.7	20.3	23.9	16.0
FINLAND	10.7	21.6	37.5	16.7	9.9	3.5	2.8	10.9	27.2	24.4	24.5	10.1
SWEDEN	11.3	24.4	25.4	18.6	13.5	6.8	4.8	15.4	27.2	22.3	18.2	12.2
SWITZERLAND	10.9	25.8	19.9	19.6	13.5	10.3	1.3	7.3	15.5	20.5	29.8	25.5
NORWAY	17.8	37.7	27.6	12.2	3.4	1.3	4.2	19.1	32.7	25.3	14.7	4.1

Table 2. Association between index of trust in public institutions and educational level  
(Gamma of Goodman and Kruskal)

	GERMANY old Länder	GERMANY new Länder	SPAIN	FINLAND	SWEDEN	SWITZERLAND	NORWAY
$\gamma$	0.056	-0.013	0.021	-0.288	-0.156	-0.053	-0.262

Table 3. Association between index of trust in private, non-governmental, social institutions and educational level  
(Gamma of Goodman and Kruskal)

	GERMANY old Länder	GERMANY new Länder	SPAIN	FINLAND	SWEDEN	SWITZERLAND	NORWAY
$\gamma$	0.023	0.001	-0.081	-0.098	0.011	-0.063	-0.071

For Tables 2 and 3, the higher the  $\gamma$ , the higher the association between trust in institutions and educational level. The association is not significant between  $-0.1$  and  $0.1$ .



## **PART 3**

# **The Equity of European Educational Systems : An interpretation of the 29 indicators**

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# Introduction

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How can the 29 indicators be used? Various approaches are possible.

The first approach consists in using the multiplicity of the presented countries to determine some global questions about the existing links between a particular type of inequality and such or such variable. This is the approach adopted by Duru-Bellat, Mons and Suchaut (2003), on the basis of an analysis of the Pisa 2000 database. So these authors point out that the grade retention practice as well as the existence of various education tracks are associated with students' lower average achievements, with a less successful student elite, with a broader school achievement inequality between different social categories and with the presence of more weakest students within the system. On the other hand, grade retention and track organization do not appear to be related to a more important dispersion of school results. Consequently, it seems that grade retention and track organization have no link with this first approach of equity (equality and discrepancies between individuals), but are rather harmful to the equity defined according to the two other aspects (equality between categories and a proportion of students situated below a minimum threshold). Duru-Bellat, Mons and Suchaut also point out the presence of a weak but rather positive relationship between country average school results and the weak influence of the social background on these results, and so prove that the equality of opportunities (weak influence of the social background) and efficiency (average school results) are more complementary rather than contradictory objectives.

The second possible approach, which has been adopted here, consists in making a comparison of countries, in terms of equity. In this aspect, it is a matter of forming a judgement on the equity of the various educational systems, on the basis of the analysis of some inequalities measured by the indicators. This comparison can be made on the basis of one of the theories of justice, i.e. a possible system of reference of what is considered as "just", some authors going along more easily than others. For Sen, for instance, justice can be measured mainly through the proportion of students that are situated below a given threshold, with the indexes inspired by his own research works (C.1.2.). According to this author, there is no external or internal factor which can counterbalance the injustice of the existence of such a population. According to his *Theory of Responsibility*, it should be checked that results and career inequalities originate in differences of will, efforts of the pupils, and not in inequalities of contexts or process. The indicators built now do not allow very significant investigations in that way. Utilitarian theories do assert only that there is no process inequalities within the system, i.e. that all the pupils, at least during compulsory education, receive an equal part of resources, teachers or efficient schools. In that sense, the system is almost close to the ideal of equality of treatment. On the contrary, insofar as education efficiency depends partly on the "quality" of the other pupils, school segregation could be considered as an inequity factor, from the utilitarian point of view. Rawl's approach will be more complex to illustrate. For Rawl, the just equality of opportunities has a lexical priority over the principle of difference: the just equality of opportunities should first be checked, then we should make sure that the remaining inequalities are in favour of the most disadvantaged. With the prospect of operationalization, it could be possible to consider that countries are more or less equitable according to the equality of opportunities, then within a group of countries that would be

similar in this aspect, to consider that the most equitable are those where the most educated most offer their capacities to the service of the most disadvantaged.

While the approach adopted here below is inspired from Rawl's one, it is nevertheless more syncretic in the sense that inequalities affecting the internal result (C.1.1. to C.3.1.) as well as the school process (B.1.1.to B.2.4.) reveal an inequity of the educational system, which is all the more important because:

1. their consequences on the future life of pupils are significant (external results);
2. they are due to the education system (process) rather than social inequalities themselves (economic, social and cultural context);
3. they are used to a lesser extent to help the disadvantaged, they seriously affect the judgement that citizens or users make about the fairness of the education system, and the result is a loss of trust in institutions and a lower socio-political participation.

In principle, this line of reasoning may be put forward for each of the three criteria of fairness, i.e. the three columns of the framework: inequalities between individuals; inequality between groups; and, individuals beneath the threshold of equity. In principle, some of the questions are a better match for one of the fairness criteria than the others are. So that, broken down according to these criteria, it appears equally necessary for education research in general, and for the public authorities, to be able to answer the following four major questions as comprehensively as possible, in particular via international comparisons:

1. What is the importance of inequalities within Europe's education systems? Are there differences – between countries and within them – from the viewpoint of their degree of unfairness (particularly via the distribution of the system's results)?
2. What benefits are connected with education in the various European countries and what is the importance of social and economic (contextual) inequalities connected with the level of education? Is the influence of education in certain fields, such as inter-generational social mobility or economic and social aspects of citizens' lives, substantial?
3. Can European education systems have a role in amplifying or reducing contextual inequalities? If this is the case, are the education systems themselves responsible for the amplification or the reduction of certain inequalities?
4. To what extent do educational inequalities benefit the most disadvantaged populations, and encourage phenomena of upward social mobility, since it appears that education can help the most disadvantaged citizens, particularly by giving them educational resources that can be used on a daily basis, and putting the skills of better-educated citizens at their service? What is currently the importance of these mechanisms?

# 1. The importance of skill and school career inequalities within the education systems of the European Union

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Some of the indicators are about skill inequalities (C.1.1. and C.1.2.), some are about civic knowledge inequalities (C.2.1.) and some others are about school career inequalities (B.1.1. and C.3.1.). The following analysis only concerns skills and school careers. These are really distinct assets. Duru-Bellat, Mons and Suchaut (2003) showed that skill inequalities explain only half of the school career inequalities. The inequalities that affect skills and school careers are measured according to different approaches of the set of indicators:

- **The inequalities between individuals and the discrepancies of the results, i.e. the difference between lowest and best pupils.** Theoretically, this approach should have required a measurement of the skill discrepancy between those who left the earlier and later the educational system in terms of some skills, such as reading, written and spoken expression, mental calculation. Such data are unavailable, thus the indicators concern the discrepancies of results at the end of compulsory school, - which can be considered as an estimation by default of the disparities in the mastery of basic skills in reading, mathematics and science at the end of school -, the differences of length of the school careers and the proportion of pupils who leave school at the modal level of learning.
- **The inequalities between groups (social background, gender and nationality) and the influence of the membership category on the skills or the school careers.** It can be debated whether an inequality between categories inevitably points out the fact that their opportunities were unequal since it can be admitted or not that individuals are responsible for behaviours, attitudes, expectations they have in common with other members of their group. The assumption here is that inequalities between categories for the possession of an educational asset are proportionate to the inequality of the opportunities to get it. This assumption seems quite reasonable since different studies show that nowadays, all social groups expect a lot from school success of all their children.
- **The equality of access to a minimum threshold of results,** as it is supported by some authors of the same line as Sen and his concept of “capabilities”. This approach is quite similar to those requiring to take into account the *extreme situations*, the measurement of the discrepancies between the minority of individuals below a lowest threshold and the rest of the population. Technically, in the education field, this can lead to adopt an index from Sen (1976), which would take into account both the numerical importance of the disadvantaged subjects and the severity of that disadvantage. This index, first built like a index of poverty, when applied to school results (C.1.2.), has the advantage to capture, beyond a mere percentage of pupils who do not reach a minimum result threshold, the average distance that keeps them from

that threshold and the discrepancy of results of those pupils. It is thus able to point out the extreme weakness situations of some pupils.

The issue of equity can be dealt with from a purely conceptual viewpoint. One may also seek to transpose its various concepts into indicators. This transposition exercise involves statistical analysis, to which we turn our attention below. But how, *a priori*, can one measure differentials in fairness of education between entities (countries, regions, courses of study, establishments) from data on pupil's learning achievements?

We should briefly point out that the concept of equity or justice in terms of education, as in other fields, is far from being univocal. According to Sen (2000), all theories of justice in the organization of society have one point in common: that of equal consideration to be given to each individual forming a group, a population, or a community. However, this principle of egalitarianism, which is unanimously accepted, quickly leads on to widespread homogeneity. There are many ways of answering the question: "Equality of what?". Libertarians, social democrats or socialists claim to be very concerned about social justice and argue for an equitable functioning of society. However, the former demand of society that it should grant equal consideration to the freedom of each individual, while the latter two groups will instead call for equality of income and financial resources for all. So, while the underlying political tendencies and political philosophies all assign a role to the concern for equal consideration of all individuals, and in this sense, they all pursue justice and fairness, that does not prevent them from opposing each other, sometimes vehemently. In fact, it is the divergent manner in which they answer the question "equality of what?" that generally characterizes their most fundamental disagreements.

In terms of schooling, there is also a relative universality of the reference to the criteria of justice and fairness. An education system should be designed, organized, and implemented with a concern to pay equal attention to each of the pupils or students concerned. But beyond that unanimously accepted initial view, important differences emerge between tendencies and authors.

## **From concept to measurement**

Here, we are trying to measure unfairness (i.e. quantify it), interpreted in various ways via the examination of the distribution of educational results (cognitive learnings and/or qualifications). We are taking an interest in cognitive learnings, via analyses relating to the results of the OECD's Programme for International Student Assessment (PISA) and the results in terms of qualifications obtained, via the *Labour Force Survey*.

The skills of 15 year-old students who took part in the PISA evaluation were evaluated in maths, reading, and science by means of standardized tests. Their results were aggregated for each field into a score<sup>1</sup>. The three scores obtained in this way were aggregated in turn into a single score shown in the table below.

The dispersion of individual PISA scores enables us to assess the degree of unfairness of participating countries in terms of the inequality of learning/results at a given age, if we are interested in the dispersion of all the scores, or access to a minimum skills threshold, if we

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<sup>1</sup> As used by educational psychologists under the term IRT (Item Response Theory), the method used consists of estimating the score of pupils as the parameter of a logistic function that maximizes the probability of observing all the answers formulated by a pupil.



take as our reference a particular score which constitutes that threshold<sup>2</sup>. In parallel, information was gathered about the profile of students whose gender, or the factors that constitute a socio-economic profile such as the level of education of the father and mother and their profession. These variables will help us to deal with the question about inequality of treatment and opportunities.

The first column shows the mean standard deviation of the scores in mathematics, reading, and science. This statistic gives a good idea of the scale of the disparity of results in the various education systems at the end of compulsory schooling<sup>3</sup>. All education systems face this phenomenon, but some are clearly more affected than others are, such as Belgium, Germany, or Luxembourg. On the other hand, in France, Ireland, Spain, and Portugal, the dispersion of students' results is tighter.

The EUO database (UNESCO, European Union, OECD) provides information about the level of qualifications per age category, and served to build the second column of Table 1. That second column shows inequality in the distribution of another "asset" produced by education systems: qualifications. In principle, some of them refer to a state of knowledge and skills. They stand out by their "flagging" function, particularly on the labour market, a function that may vary within a country, depending on the sector of activity, as well as between countries. In any case, knowledge of a given level, having been certified by the award of a certificate "is worth more", particularly in terms of salary, on the labour market than those that are uncertified. This is why it is interesting to attempt to measure the degree of inequality/unfairness in access to a certificate or other educational qualifications.

The following three statistics give an idea of the degree of the breach of the principle of equality of treatment or opportunities, in relation to characteristics such as gender, socio-economic profile, and national origin, at the end of basic education (age 15). As far as the aspect "dispersion of learning between individuals" is concerned, we observe a general trend to maintaining substantial differences between students whose parental socio-professional profile is high compared with those of a low parental socio-professional profile. The mean deviation in the European Union (plus applicant countries) is of the order of 80 % of a standard deviation, or a figure that any statistician would consider as very substantial, and which reflects no more or less than the tendency of education systems to reproduce, in terms of educational results, the pre-existing social hierarchy, as shown previously by Bourdieu and Passeron (1970). At present, it is not yet possible, because of the synchronic character of the PISA data, to evaluate the tendency of the phenomenon to accentuate or regress over time.

However the third column of Table 1 shows that Bourdieu's "reproductive" thesis applies with highly variable intensities depending on the country: the problem is undoubtedly less acute in Finland than in Belgium.

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<sup>2</sup> The scale of scores in PISA is subdivided into five levels. Each level is described qualitatively and corresponds to certain skills. Students below level 2 are considered here as being below a minimum reading skills threshold.

<sup>3</sup> Pisa evaluated the skills of 15 year-old students, because this is the age when compulsory education ends (at least full-time schooling) in many European countries.

**Table 1. Measurement of (un)fairness of results: summary of main results<sup>4</sup>**

Country	Differences between individuals		Differences between groups			Students below the threshold of skills			
	Standard deviation of PISA scores	Percentage of 25-34 year-olds not in the modal category of qualification	Differences of cognitive learnings, according to the socio-economical background	Differences of cognitive learnings, according to parents' nationality	Differences of cognitive learnings, according to the gender	Percentage of students with very low score	Sen's index	Deviation between students with very low scores and others	Percentage of 25-34 year-olds below high sec. education
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
B	104.90	60.87	0.98	0.62	0.09	14.04	1.25	-244.03	27.00
DK	95.39	41.41	0.80	0.38	0.01	9.92	0.81	-212.08	12.78
D	101.04	36.37	0.98	0.55	0.07	19.88	1.91	-224.87	14.82
EL	99.50	53.99	0.71	0.21	0.12	17.17	1.61	-212.63	28.84
E	91.64	54.52	0.70	0.25	0.03	13.37	1.11	-207.41	45.48
F	96.22	54.55	0.85	0.31	0.05	14.51	1.23	-211.61	23.63
IRL	90.04	62.76	0.74	-0.16	0.07	14.52	1.23	-203.65	33.30
I	93.76	54.55	0.62	-0.06	0.13	22.65	2.28	-212.06	44.55
L	100.15	60.21	0.90	0.52	0.08	16.36	1.67	-214.93	39.00
NL	91.64	51.13	0.81	0.71	0.07	13.64	1.15	-216.08	26.00
A	94.90	29.37	0.65	0.53	0.04	13.51	1.18	-199.98	16.82
P	92.31	30.48	0.91	-0.07	0.04	18.12	1.56	-198.06	69.52
FIN	87.14	51.86	0.54	0.26	0.20	9.63	0.76	-206.62	14.41
S	94.02	44.70	0.71	0.32	0.11	10.57	0.85	-213.29	12.96
UK	97.47	61.35	0.93	0.09	0.05	9.71	0.79	-215.47	34.09
NO	98.01	38.89	0.61	0.37	0.12	13.86	1.16	-218.89	6.08
CH	97.57	37.16	0.93	0.52	0.04	13.46	1.05	-210.01	11.24
<b>Correl.</b>	<b>1.00</b>	<b>0.04</b>	<b>0.61</b>	<b>0.47</b>	<b>-0.17</b>	<b>0.24</b>	<b>0.29</b>	<b>-0.74</b>	<b>-0.18</b>
<i>Mean</i>	<i>95.63</i>	<i>48.48</i>	<i>0.79</i>	<i>0.31</i>	<i>0.08</i>	<i>14.41</i>	<i>1.27</i>	<i>-213.04</i>	<i>27.09</i>

- (1) Inequality of results: mean standard deviation of the distribution of results in mathematics, science and reading.
- (2) Inequality of results: 100 % of 25-34 year-olds minus the percentage of 25-34 year-olds holding the most common qualifications for their age group.
- (3) Inequality of opportunities/treatment: mean deviation (mathematics, science, reading) between the average scores of students whose parental socio-economic index is below the 75<sup>th</sup> percentile and those for whom the same index is below the 25<sup>th</sup> percentile (expressed as a percentage of the mean standard deviation).
- (4) Inequality of opportunities/treatment: standard deviation (mathematics, science, reading) between the average score of students were born in the country of the test and those whose father and/or mother were born abroad (expressed as a percentage of the mean standard deviation).
- (5) Inequality of opportunities/treatment: mean deviation (mathematics, science, and reading) between the average score of girls and that of boys (expressed as a percentage of the mean standard deviation).
- (6) Inequality of access to a minimum threshold of results: average percentage (mathematics, science, and reading) of students with low scores, i.e. those whose score is below the 15<sup>th</sup> percentile of the international distribution of the score in mathematics, reading and science.
- (7) Inequality of access to a minimum threshold of results: average Sen index (mathematics, science, reading) for students with low scores. The Sen index is calculated according to the formula:  $T(I+G(1-I))$ , where T is the percentage of pupils below a threshold Z (below the 15<sup>th</sup> percentile of international distribution); I corresponds to the value of the threshold  $[I=(Z-u/Z)]$ ; and G, the Gini index, a measurement of the dispersion of the results among students below the threshold.
- (8) Inequality of access to a minimum threshold of results: mean deviation (mathematics, science, reading) between students "with very low scores" and other students. Students "with very low scores" are those whose result is below the 1<sup>st</sup> decile of the national distribution for mathematics and science. For reading, the threshold is defined by literacy level 1 and below. It corresponds to 60 % of the median score in written comprehension of pupils from the various European countries. The European threshold is 306.43.
- (9) Inequality of access to a minimum threshold of results: percentage of individuals 25-34 years of age who do not have qualifications from higher secondary education.

Columns 4 and 5 present two other measurements of the tendency towards an inequality of opportunities. They show the intensity of deviations according to two other inherited characteristics, which are nationality<sup>5</sup> and gender. They show deviations of lesser amplitude than those observed for the socio-professional origin (especially for gender), and the direction of which can be opposite. The figures suggest that there may even be an advantage for students in certain countries, like Portugal, whose parents are born abroad. On the other hand, in other countries like the Netherlands<sup>6</sup>, Germany, France or Belgium there is a situation that some people deem much more predictable, where the advantage is clearly on the side of pupils whose parents were born in the country. The mean deviation European Union-wide is only 31% of a standard deviation (compared with 80 % as far as socio-professional origin is concerned).

Once we take an interest in the gender of students, we observe that, in the majority of countries, the gap between girls and boys are, all fields combined, relatively modest, since on average, a standard deviation of only 8 % separates the two categories. Careful examination of the data reveals that a *gender gap* continues to exist, but is variable, and can be in the opposite direction, depending on the subject matter. Boys generally do better in the maths test than the girls, who are often more competent in reading (the intensity of the differences is greater in this area of skills). With regard to gender, it is the aspect of inequality according to subject matter that should be borne in mind rather than differences between countries.

Columns 6, 7, 8, and 9 give a clearer picture of the phenomenon of students “with very low scores” and that of 25-34 year-old adults with few qualifications.

Column 6 shows, for each country, the proportion of pupils whose PISA score is lower than the 15<sup>th</sup> percentile of the international distribution of scores in mathematics, reading, and science.

From the last two definitions, the question emerges of the appropriateness of reference to an international skills threshold as opposed to a strategy that consists of using a “local” threshold specific to each country/region: for example, the 1<sup>st</sup> decile of the distribution within each country. This poses the whole question of the legitimacy of a reference that transcends the frontiers of different systems. Do we believe in the possibility of a scale for measuring skills that is common to a very diverse group of education systems? The answer is clearly yes, via the whole PISA project. Therefore, it appears difficult, once we are working on the basis of PISA, to completely avoid the idea of an international reference framework. That being said, we could work system by system, as we do for the majority of other indicators. As we are dealing with skills thresholds, such an approach would be consistent with the idea that the indispensable minimum skills for integration into society does not correspond to a *level* but rather to a *ratio* (a certain deviation) between individuals who have to live together. We believe this approach is relevant. We have not adopted it in its entirety here, because we refer to it implicitly via all the other indicators that we have calculated in this section on the results. However, it is necessary to be aware that this perspective, which we readily qualify as relativist leads us to consider that an individual with a given score may be threatened with social exclusion if he lives in Finland (the country with the best level of scores in PISA) and a member of the “educated” class if he lives in Brazil (the country with the lowest average

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<sup>5</sup> Nationality is certainly an inherited characteristic, but it can be affected fundamentally (in populations of foreign origin) by the history of migrations and the greater or lesser propensity of the host country to assimilate entrants by granting them nationality.

<sup>6</sup> Data relating to the Netherlands and derived from PISA 2000 must be considered with caution since the sample does not meet the requirements of the study.

score in PISA). To conclude on this point, we should indicate that this discussion on the right way to grasp the inequalities of the scores is very similar to that which, for some years, has been the subject of argument between advocates of an “absolute” or “objective” approach to poverty (whether or not people own a series of goods) and defenders of the relative character of the phenomenon.

That being the case, what can we learn from the information shown in columns 6, 7, 8, and 9 of Table 1? First of all, we observe that the proportions of students below the international threshold, and whose poor performance in the reading test probably compromises their ability to integrate into society, are extremely variable according to the country, since the proportion oscillates between 9.6 % in Finland and 22 % in Italy (column 6).

The Sen index (column 7), which also focuses on reading and an international definition of the minimum threshold necessary for social integration, largely confirms this analysis.

The third index derived from PISA (column 8), founded on a national measurement of the minimum threshold and relating to mathematics and science, gives an idea of the deviation in terms of gross score between individuals below the threshold and the rest of the population. Since it is around 200 points, it appears quite simply gigantic, being equal to approximately two standard deviations.

Finally, column 9 indicates the proportion of adults (aged 25-34) who did not progress beyond the stage of the higher secondary certificate, and risk this being interpreted as a negative signal on the labour market, with an increased risk of low salary and/or employment rate.

### **Synthesis tentative about (un)equity**

The indicators described above offer an initial snapshot of the possibilities offered by existing databases for exploring the various facets of the fairness of education systems. By exploiting the distribution of levels of learning in maths, reading, and science, as well as some category-related variables such as gender or the socio-professional status of the parents, we succeeded in producing a quantitative measurement of three of the main concepts of (un)fairness that we mentioned earlier.

The exercise also led to a first international comparison, presented in the following table, relating to the fifteen European Union Member States as well as two members of the *European Free Trade Association*: Norway and Switzerland.

This comparison showed a widespread tendency towards unfairness. However, the most important result is that of the pronounced differences between countries. Obviously, not all education systems are equivalent in their ability to treat students fairly. While this assessment is undisputed, the question of how it should be explained, and the reasons for deviations in performance remains to be answered.

**Table 2. Measurements of (un)equity and analysis of results: summary in terms of ranking<sup>7</sup>**

Country	Differences between individuals		Differences between groups			Students below the threshold of skills			
	Standard deviation of PISA scores	Percentage of 25-34 year-olds not in the modal category of qualification	Differences of cognitive learnings, according to the socio-economical background	Differences of cognitive learnings, according to parents' nationality	Differences of cognitive learnings, according to the gender	Percentage of students with very low score	Sen's index	Deviation between students with very low scores and others	Percentage of 25-34 year-olds below high sec. education
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FIN	1	9	1	7	17	1	1	4	5
A	8	1	4	14	5	7	9	2	7
DK	9	6	9	11	1	3	3	9	3
E	3	11	5	6	2	5	6	5	16
P	5	2	13	2	4	15	13	1	17
S	7	7	7	9	13	4	4	11	4
CH	12	4	15	12	3	6	5	6	2
IRL	2	17	8	4	9	12	11	3	12
NO	13	5	2	10	15	9	8	15	1
NL	4	8	10	17	10	8	7	14	9
F	10	12	11	8	6	11	10	7	8
UK	11	16	14	3	7	2	2	13	13
I	6	13	3	1	16	17	17	8	15
EL	14	10	6	5	14	14	14	10	11
D	16	3	16	15	8	16	16	16	6
L	15	14	12	13	11	13	15	12	14
B	17	15	17	16	12	10	12	17	10
<b>Correlation</b>	<b>1.00</b>	<b>-0.02</b>	<b>0.54</b>	<b>0.44</b>	<b>0.05</b>	<b>0.30</b>	<b>0.38</b>	<b>0.68</b>	<b>-0.22</b>

*The countries were classified in ascending order of ranking, from the fairest to the most unfair*

- (1) Inequality of results: mean standard deviation of the distribution of results in mathematics, science and reading.
- (2) Inequality of results: 100 % of 25-34 year-olds minus the percentage of 25-34 year-olds holding the most common qualifications for their age group.
- (3) Inequality of opportunities/treatment: mean deviation (mathematics, science, reading) between the average scores of students whose parental socio-economic index is below the 75<sup>th</sup> percentile and those for whom the same index is below the 25<sup>th</sup> percentile (expressed as a percentage of the mean standard deviation).
- (4) Inequality of opportunities/treatment: standard deviation (mathematics, science, reading) between the average score of students were born in the country of the test and those whose father and/or mother were born abroad (expressed as a percentage of the mean standard deviation).
- (5) Inequality of opportunities/treatment: mean deviation (mathematics, science, and reading) between the average score of girls and that of boys (expressed as a percentage of the mean standard deviation).
- (6) Inequality of access to a minimum threshold of results: average percentage (mathematics, science, and reading) of students with low scores, i.e. those whose score is below the 15<sup>th</sup> percentile of the international distribution of the score in mathematics, reading and science.
- (7) Inequality of access to a minimum threshold of results: average Sen index (mathematics, science, and reading) for students with low scores. The Sen index is calculated according to the formula:  $T(I+G(1-I))$ , where T is the percentage of pupils below a threshold Z (below the 15th percentile of international distribution); I corresponds to the value of the threshold  $I=(Z-u/Z)$ ; and G, the Gini index, a measurement of the dispersion of the results among students below the threshold.
- (8) Inequality of access to a minimum threshold of results: mean deviation (mathematics, science, reading) between students "with very low scores" and other students. Students "with very low scores" are those whose result is below the 1<sup>st</sup> decile of the national distribution for mathematics and science. For reading, the threshold is defined by literacy level 1 and below. It corresponds to 60 % of the median score in written comprehension of pupils from the various European countries. The European threshold is 306.43.
- (9) Inequality of access to a minimum threshold of results: percentage of individuals 25-34 years of age who do not have qualifications from higher secondary education.

Table 2 summarises the results obtained so far. It is based, indicator-by-indicator, on the *ranking* of the country, from the fairest (first position) to the least fair (last position). It is based on the average<sup>8</sup> of the rankings obtained by each of the countries examined for each of the disciplines as well as the overall average. Therefore, it “summarises” the tendency towards overall (un)fairness (inequality of results, access to basic skills, and treatment/opportunities) and allows an international ranking.

On that basis, it is Finland, Austria, and Denmark which appear to be the fairest overall. On the other hand, the unfairest countries are Germany, Luxembourg, and Belgium. Of course, these results should be treated with all the usual reserves. They are based on estimates that do not use inferential calculation for the most part (no test of hypotheses). The use of rankings means that we lose the intensity of the deviations between the systems. In addition, the correlation coefficients between the ranking of the country based on the standard deviation of the results (unfairness of the results) and the ranking of the country in comparison with other measurements of unfairness is sometimes low. This suggests that the countries may appear relatively unfair in relation to one dimension and relatively fair for another, which the calculation of an average ranking – which is the basis of the ranking in Table 2 – tends to overcome.

Finally, we can observe that two dimensions of unfairness explored here differ by both their lower intensity and the classification of countries that they generate. This concerns the “nationality” and “gender” aspects. It is true that countries continue to display deviations in results according to nationality and especially gender. As far as the last aspect is concerned, it is difficult to say that this problem is of the same pregnancy as that posed by the deviation of results according to socio-professional background or the distance separating pupils “with very low scores” from the rest of the population. Examination of the correlation coefficients at the bottom of Table 2 suggests, in addition, that the ranking of countries in terms of inequality of treatment according to gender differs from the rankings according to other dimensions.

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<sup>8</sup> We do not put forward any “preference” for one of the three conceptions of fairness measured here, and have allocated the same weight to each of them (1/3<sup>rd</sup>). That means that we allocate more weight to the first two columns taken individually, and less to the other columns.

## 2. What advantages are tied to education in the European Union Member States?

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Even those people who are most reluctant about an economic approach to education must consider that its main merit is its effects, which are felt for a lifetime: reading and expressing oneself more easily, being more cultivated, thinking more independently, being more capable of inventing, etc. However, it is relatively difficult to estimate precisely the importance of the advantages tied to increasing skills acquired through education (Demeuse, 2002) and which constitute part of what economists refer to as “human capital”. Education is nevertheless an “intermediate product” and since educating people is a cost, it constitutes an investment. Parents and young people themselves invest in education, in the sense that they agree to spend on their education, or at least, even if education is free, lose out on an “opportunity cost” – i.e. the value that they would have earned if they had occupied their time by working instead of studying – in the hope of benefits accruing from a successful school career, higher, more numerous and more complex skills. Besides private expenditure, there is also public investment in education (provision of infrastructure, payment of teachers’ salaries, miscellaneous benefits, scholarships, etc.).

Some of the benefits of education can be directly converted into financial terms – higher salary, lower risk of being unemployed – while others have a “non-market” value: cultural or civic benefits, as well as belonging to a higher social category, a more prestigious job, involving less risk of accidents, better health, the opportunity to give a better education to one’s own children, etc.

Many studies have been carried out by economists on these effects, whether they are market (OECD 2002) or non-market effects (Mac Mahon, 1997). Their purpose is to improve the calculation of the return of education.

### **Educational assets do not have the same value everywhere**

The advantages associated with education are also important for measuring equity, for a simple reason. If we share these assets between individuals, the fact of whether the distribution is fair or not does not depend on the value of the assets, but only on the equity of the sharing process. This is confirmed by comparing the allocation received by each person with a criterion of equity. On the other hand, everyone will agree that the unfairness is of the same nature, but of greater or lesser seriousness: if diamonds are shared out less fairly than lumps of coal, water in a desert rather than in a particularly wet region. An injustice comparable to another from the sole viewpoint of equity will have more or less important repercussions on the beneficiaries, depending on the nature of the assets in question and their value.

In the field that concerns us, if, in a given country, salaries hardly depend on a person’s school career, then an unfair distribution of education would be less serious than if they were heavily dependent on it. Likewise, if a country teaches young people to read by methods that

do not give them an appetite for reading, so that even those who are capable of reading well at school give up reading as soon as the school no longer obliges them to read, and thus lose their reading skills, unfair teaching of reading skills would not be very serious there. The same applies if, in general, the school passes on knowledge that is not relevant for living a worthy and successful life or to have a better career. However, it is probable that countries will differ less in relation to the relevance of education than to the inequality of distribution of the assets with which it is associated and that the scale of the effect of education will be correlated above all with the scale of unfairness in the distribution of these assets.

In practice, what the selected indicators highlight is the correlations between the fact of having successfully completed higher education (left the education system at ISCED level 5 or 6) and the fact of possessing certain desirable social characteristics. We observe a certain co-occurrence, without being able to be certain whether it is actually, in the strict sense, an effect of education. That is one of the drawbacks of only having correlations. Nevertheless, it is possible to analyse complex situations, even if the causal nature and the direction of the relationship is unknown. So, let us suppose that a country where a successful education is strongly connected with the prestige of a person's profession, but where, in reality, social origin has a strong influence on both prestige of profession and school career. It will be no less true that in this country, the social consequences for individuals with a poor education are more serious than elsewhere, and therefore, the question of unfairness in the distribution of education is more important than elsewhere.

We can formulate this in the following way: the more unfairly a country distributes assets among adults, and the more possessing them depends on the education received, the more important it will be that school should distribute its benefits fairly, so as to avoid further aggravating the situation. This fair distribution will be even more difficult to establish since the social and economic context is inequalitarian, and groups that are more prosperous risk exerting heavy pressure on schools to maintain their advantages.

The relationships that we have just described apply to the three equity criteria adopted for this work. For inequalities *between individuals*: the more sizeable the effects of a successful career, the more important it is that talented pupils – in the sense of responsibility theory – should not be advantaged by comparison with others. For *inequalities between groups*: the greater the effects of a successful career, the more important it is that children of disadvantaged categories should have the same opportunities of success as the others. For *possession of minimum skills*: the more serious the effects of not possessing them are, the more important it is for nobody to fall below that skills threshold. The latter observation will become even more important if the persons falling below the threshold mostly belong to a group that is already disadvantaged in other ways.

Moreover, in an ideal situation, a distinction should be made between these three criteria and the assets to which they apply: relating the equity of education of the weakest pupils to the scale of consequences of having a skill level below the minimum threshold; relating equity of access to higher education to the scale of consequences of having a higher education degree rather than a certificate from the second cycle of secondary education, etc. Here, we adopt a more holistic approach; usually focused on the comparison of those who have a higher education degree and various other population groups.



## **The value of certain assets also depends on the individuals that benefit from them and their relative situation**

This question includes another aspect: the effects of education may be more important for certain groups of individuals than for others. For example, in France, if young people have equal qualifications, those from immigrant families have poorer prospects of avoiding unemployment or finding a job that corresponds to their qualifications (Silberman and Fournier, 1999). We also know that, where they hold equal qualifications, women are often paid less than men are.

Of course, one cannot deduce from this that unfairness in education for disadvantaged groups through the operation of the labour market would be less serious since the benefits of education have been less in their case. In fact, it is the opposite that is true: while children of immigrants have more difficulty finding employment with equal qualifications, equity demands that the resources of the education system should be allocated in such a way as to give them greater opportunities of obtaining the same qualifications or the same opportunity of obtaining a degree. In fact, while the low average return of education in a given *country* means that it is less serious for a young person to receive less education than others, the poor return of education for a given *group* in a country means that it is even more serious for a member of this group to be disadvantaged by his/her level of education.

The parallelism between groups and countries is as follows: if the benefits associated with education are lower for immigrants than for nationals, the issue of equity in education *between* immigrants is less crucial than it is *between* nationals. That reasoning should not obscure the fact that an increase in educational resources should compensate the low external return of education for immigrants. Likewise, if the benefits of education are lower in country A than country B, the issue of the equity of education will be less important in the former country than the latter, without this releasing country A from the need to reflect on the ultimate aim and the results of its own system.

## **Social advantages and economic advantages**

One of the main advantages of education is that it enables people to reach a higher social status than their parents. Social status usually entails the possession of a whole series of desirable goods, such as those which Lévy *et al.* (1997) identified for Switzerland.

Unfortunately, we were only able to identify data comparable in this respect for three European countries: Spain, Italy, and the United Kingdom. This data, drawn from the *European Community Households Panel*, is used in the fourth part of our analysis (Question 4. To what extent do educational inequalities benefit the disadvantaged and encourage social mobility?).

On the other hand, more data is available to understand some basic advantages associated with education. We made a distinction between the economic advantages (A.1.1.) and the social advantages (A.1.2.).

These indicators, a summary presentation of which is provided in the table below, to which the figures in brackets refer, take into account:

### *Economic advantages*

- Private return from a tertiary education (1 and 2)<sup>9</sup>
- Private return from an additional year of education, with a given level of professional experience (3 and 4)<sup>10</sup>
- Increased salary associated with a tertiary education (5 and 6)
- Increased probability of finding gainful employment (7 and 8)

### *Social advantages*

- Reduction of the risk of unemployment (9)
- Effect on the prestige of the profession entered (10)
- Effect on professional status (11)
- Thorough grasp of written comprehension as an adult (12)
- Probability of attending continuing training (13)

### *Advantages in relationships with children*

The benefits accrued not directly by the person, but by his/her children or in the context of relationships with children were also taken into account. This is an aspect of the benefits of education whose importance was shown by Wolfe and Haveman (2000):

- cultural practices of children (14);
- quality of communication between parents and children (15);
- educational skills of children (16).

We would have liked to be able to use other criteria like the effect of education on the risk of coming into contact with the judicial system or on people's state of health. The latter effect is one of the most firmly established (Gilleskie, D. B. *et al.*, 1998) non-market effects of education. But we have not found any international comparisons, for example of the links between qualifications and the individual's perceived state of health, whereas such data is collected at national level, in certain censuses, such as in Belgium (INS, 2001).

The results of the comparison are presented in the following table. All the indicators were devised so that a high value means that an increase in education is associated with a particularly high increase in a desirable asset. The shades of colour used in the following table mean that the countries concerned differ from the others due to particularly pronounced values (in red) or low values (in yellow) of the indicator. The assignment of these two colours was carried out in a relative way: the red means that the country is among those which have either one of the four or five or even six highest values if the 15 countries are classified for this indicator, or one of the two highest values if only 6, 7, or 8 countries are classified. The yellow means that the country is among those with an intermediate position for the indicator under consideration. The cells are left blank where data is unavailable.

We preferred this method of working to the total of rankings because the extent and form of the distribution vary according to each criterion.

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<sup>9</sup> This indicator was borrowed from *Education at a Glance*, 2002, p. 147. The precise definition of other indicators is given with the indicators A.1.1. and A.1.2. (Part 2).

<sup>10</sup> This is the only criterion which does not compare populations with a tertiary degree to other populations.

This method of working enables us to take that into account, by distinguishing more or less the countries by size, if we can use a cycling metaphor, in the “leading group” or the “trailing group”. The method of calculation used is equivalent to giving a weighting of 6 out of 16 to salary benefits, 3 out of 16 to benefits in terms of employment / unemployment, 2 out of 16 to effects in terms of status and prestige, and 5 out of 16 to personal benefits and those connected with education of children.

In view of the limitations of this approach (non-exhaustive nature of criteria, disparities in populations, periods taken into account, etc.), this classification should not be interpreted too conclusively or too inflexibly.

It appears that, with the prudence required, one can consider that the European countries where the advantages associated with better education are lowest (in fact, taking account of the indicators relating to tertiary education) are Norway and Sweden, while they are more pronounced than elsewhere in Ireland (although the low number of criteria available for this country make the result particularly fragile), in the United Kingdom and in Switzerland. In the latter three countries, to which we can probably add Portugal and Luxembourg, the equity of education is a particularly crucial issue.

Other lessons can also be learned from this analysis. Some countries have a homogenous profile: their relative situation does not appear to be different from one criterion to another. That is the case of Sweden which belongs to the countries where the benefits associated with education are least pronounced on almost all the criteria. On the other hand, Finland and Switzerland belong to the countries where the benefits associated with education are the strongest on almost all the criteria. To a certain extent, France can be associated with these homogenous countries, since it only differs on one of the ten criteria available for it.

Others have a contrasting profile: Italy, Portugal, and the United Kingdom in particular. The benefits associated with education are particularly high on at least two criteria and low on at least two others. The United Kingdom combines particularly high monetary benefits of education with particularly low benefits in prestige and status of the profession entered, as it also had less pronounced benefits in terms of social mobility than Spain and Italy. On the other hand, in Germany, the benefits associated with education seem to be higher in terms of prestige than in monetary terms<sup>11</sup>. We can also observe that this analysis “blurs” somewhat the usual geographical divides: Nordic and Latin countries can be found both among the countries where the benefits of education are particularly high as well as the countries where they are low.

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<sup>11</sup> These results should be treated with caution; they may reflect the fact that the indicators are calculated over different periods: the research used to score prestige is rather old, and it is not impossible that in Germany and in the United Kingdom, differences in prestige have since become aligned with the differences in pay.

**Table 3.** *Magnitude of benefits associated with a better education*<sup>12</sup>

Country	Tertiary education return	Tertiary education return	Add. year of education return	Add. Year of education return	Salary linked with tert. educ.	Salary linked with tert. Educ.	Employ. probability	Employ. probability	Unemploy. decrease	Prestige of the profession	Professional statut	Reading level	Continuing training	Cultural practices of children	Communication. with children	Children skills
	Male	Female	Male	Female	Male	Female	Male	Female								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
S																
NO																
EL																
NL																
F																
DK																
A																
I																
D																
E																
B																
FIN																
L																
P																
CH																
UK																
IRL																

*The countries have been classified in ascending order, by the magnitude of the benefits associated with a better education (dark).*

<sup>12</sup> This table is a synthesis of the indicators A.1.1 and A.1.2, to which we have added the comparison of the private return of tertiary education (OECD, 2002, p. 147). The colours mean that the countries concerned differ by high values (red) or low values (yellow) of the indicator. These colours refer to relative values. Red indicates that the country is among those which have one of the 4 or 5 highest values (if the 15 countries are classified for this indicator), or one of the two highest values if only 6, 7, or 8 countries are classified. Yellow has the opposite meaning. The orange means that the country occupies an intermediate position.

Some indicators distinguish between men and women. In all countries, the benefit associated with education with regard to the prospects of obtaining gainful employment is higher for women than for men. As to increased pay, the situation is more favourable to men, but changes according to the indicator under consideration: the premium associated with higher education is higher for men in three countries out of nine, higher for women in three other countries, and equal for men and women in another three countries. On the other hand, the rate of return per additional year of education is greater for men in nine countries out of thirteen and equal for women and men in the four other countries (Austria, Denmark, Finland, and Norway). Equity in education therefore does not seem to be, on examination of this clearly incomplete data, more crucial for women than for men.



### 3. Do the European Union's education systems have a role in amplifying or reducing contextual inequalities?

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#### **School is not an island**

School is not an island: it depends on the social and economic system in which it exists, but in return, it can also modify it by contributing to a greater or lesser extent to reduce inequalities that are considered unfair. Even if, as Boudon, Bulle and Cherkaoui (2001, p. 2) put it, "School was probably the first institution called to take up the challenges thrown down by social, economic and political changes for the future of societies. It was and still is, more than ever before, the institution most exposed to the dangers engendered by the pressing social expectations that it nurtures, and by the continual changes to which it is subject, and whose consequences it is not in a position to control". Giving school too much power to change is certainly just as serious a mistake as giving it none at all, limiting it, like some, to a role as a marshalling yard, facilitating reproduction of one generation to the next, with a greater or lesser dose of meritocracy capable of reshuffling a small number of the cards.

#### **What are the objectives actually assigned to school?**

Not granting any power of change to education systems, and not adopting the tools intended to measure the equity of the processes set up to achieve that, is even less relevant if one considers the concrete future objectives of European education and training systems. The section "Increase the quality of education and training systems" of the work programme provides that the basic skills must be brought within the reach of all, including the most disadvantaged people, those who have specific needs, young people who have dropped out of school, and those undergoing training. The aspect "Facilitating access to education and training for all" also shows the potential benefits of an approach focused on equity, not only in terms of access to education and training ("Ensure that education and training are accessible to all"), but also in terms of results ("Ensure fair access to the acquisition of skills") and internal processes ("Fully integrate the dimension of equality of opportunities into the objectives and operation of education and training")<sup>13</sup>.

While at a certain level of education, one can consider the question of specialization of objectives, and lead certain individuals to differentiated expertise, and possibly a variable individual return, basic schooling, which must develop in all pupils the skills necessary to participate fully in the Information Society eludes this thorny question. Once we focus on developing the same basic skills among all individuals, there is a necessary link between effectiveness and equity, framed in terms of equality of results.

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<sup>13</sup> <http://europa.eu.int/scadplus/leg/en/cha/c11049.htm>

After all is said and done, if we consider matters from the viewpoint of equality of results, the idea of linking effectiveness and equity appears to be an integral part of the principal of equality of learning and its valuation by society. From this viewpoint, an education *system* will be considered effective *if, while raising the average level of knowledge, it reduces the overall variance of internal and external results of the education system*. In any case, this is the ideal advanced by Bloom (1976) since, according to him, effective education is characterized by three joint effects at the end of each phase of learning:

- a rise in the average standard of results;
- a reduction in the variance of results;
- a reduction in the correlation between the social origin of the pupil (and in general, his/her initial characteristics) and achievement.<sup>14 15</sup>

The latter aspect poses the problem of being able to discern an initial aptitude, which would depend on individual characteristics and which would determine the results that an educational action may have (Cronbach, 1967, p. 23 translated by Birzea, 1982, p. 108), and the social determinants linked to the environment in which a child is born and brought up, and which, if they are penalized by the education system, constitutes a curb on individual development.

In a way, it is by focusing the objectives of school on a group of skills to be mastered by all that certain education systems solve the problem: whatever the initial or social characteristics may be, the mission of these systems is to implement the necessary resources so that everyone can master the skills deemed to be fundamental for the development of every individual and for society as a whole.

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<sup>14</sup> Coleman (1966, p. 72) writes on this subject: « Another way of putting this is to say that the schools are successful only insofar as they reduce the dependence of a child's opportunities upon his social origins. We can think of a set of conditional probabilities : the probability of being prepared for a given occupation or for a given college at the end of high school, conditional upon the child's origins. The effectiveness of the schools consists, in part, of making the conditional probabilities less conditional – that is, less dependent upon social origins. ».

<sup>15</sup> Miller (1977) clearly indicates the risk of only considering one aspect at a time, since the reduction in variance of results obtained and belonging to a particular group may merely mask the increase in individual differences not attributable to belonging to that group. So, we can observe that belonging to the black minority is no longer that much of a disadvantage in itself, in relation to academic achievement or the possession of certain assets, but we can also realize that the gap between the most well-off and the most disadvantaged, whatever their ethnic background, has widened in the same period of time. That is the appeal of the three criteria proposed by Bloom, and why they should be considered simultaneously. They are stricter, from an egalitarian perspective, than the Rawlsian system that tolerates substantial differences between individuals, while enabling the fate of the most disadvantaged to be improved in absolute terms.

Walzer, in his book "Spheres of Justice" (1983) refers to this necessary independence between goods to ensure complex equality, in the absence of being able to achieve simple and absolute equalization of all individuals in all fields (see also Meuret, 2000a, p. 243). Michel (1999, pp. 76-77) explicitly makes the link between this concept of independence of "spheres" and that, which is more familiar to readers of Bourdieu, of "specific types of capital". These two ways of considering justice by independent distribution of various types of capital or benefits through independent economic, administrative, educational, family, religious spheres, as proposed by Walzer, may be compared to the third condition posed by Bloom (the absence of a link between socio-economic status of parents and academic success).



## School is more a matter of right than aptitudes

As emphasised by John Dewey, the debate about equality in education involves questions about societal policy, and not only individual or social data:

*Belief in equality is an element of the democratic credo. It is not, however, belief in equality of natural endowments. Those who proclaimed the idea of equality did not suppose they were enunciating a psychological doctrine, but a legal and political one. All individuals are entitled to equality of treatment by law and in its administration. Each one is affected equally in quality if not in quantity by the institutions under which he lives and has an equal right to express his judgment, although the weight of his judgment may not be equal in amount when it enters into the pooled result to that of others. In short, each one is equally an individual and entitled to equal opportunity of development of his own capacities, be they large or small in range. Moreover, each has needs of his own, as significant to him as those of others are to them. The very fact of natural and psychological inequality is all the more reason for establishment by law of equality of opportunity, since otherwise the former becomes a means of oppression of the less gifted.*

When we are considering the educational establishment, Dewey points out that above all, this concerns a philosophical or legal position, and not a psychological given: as men are different by nature, it is the Law that guarantees them equal rights. Since Dewey, compensatory education and the wish to provide everyone with equal rights in terms of access, as well as in success, have led to taking account of the pupil himself or herself in deciding the resources that must be allocated to the various institutions: a child is no longer equal to a child, at least when it is a question of allocating the resources necessary for each individual in response to different needs but shared objectives.

Some go a long way in their concern to make school and society fairer. Husén (1972, p. 42), in a document published by the OECD, has no hesitation in writing:

*It is not enough to introduce formal equality of access to education; children from diverse social backgrounds must be given greater possibilities of access to intelligence, and to do this, accentuate the inequality in pre-school institutions or in school itself. As far as differentiation in IQ is concerned, it is already accomplished to a large extent before the child starts school. The family, and above all, the cultural level of his/her friends (Coleman, 1961) continue to exert an important influence. To equalize school results, it is necessary for society to take special measures to compensate the shortcomings of the environment in which the child grows up, and to supplement what may have been done at home. To achieve the objective of equality at all costs, it may be necessary to act against the wishes of families who are indifferent or even hostile to the measures envisaged by society<sup>16</sup>. The report by the Swedish Royal Commission on pre-school establishments confirms this data.*

Husén (1972) emphasises how an approach based on talents can constitute a form of social Darwinism: school exerts identical pressure on everyone, while selecting ruthlessly and putting “the blame” on parents who do not take sufficient interest in the pupil’s progress, or on the pupils who do not have the talents, abilities or determination to advance.

Coleman (1973, p. 135) qualifies slightly the actions to be taken in relation to equal opportunities:

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<sup>16</sup> Emphasis added by the authors of this report.

*For these two reasons, firstly because it is unachievable and secondly because if it were achieved, it would lower the overall level of opportunities offered to children, the ideal of equal opportunities is a false ideal. A society cannot take a decision, and make it achievable, to create equal opportunities for all the children that form part of it. What it must do is to decide how far its investment of public resources can go to reduce the size of inequalities caused by private means.*

So the role of each individual cannot be entirely determined by essentially non-changeable variables as defined by Bloom (1976) and school must not be used to reveal potential that is mainly innate or linked to family resources which sanction the logic of “heirs” (Bourdieu and Passeron, 1966; Bourdieu, Passeron & Chamboredon, 1970). It remains to be defined what is tolerable with regard to social determinism, and in which fields this cannot be tolerated (for example, what are the vital skills that all citizens must master in order to fully exercise their rights and duties within a democratic society?).

Once the common minimum is established as an objective to be attained by all, this wish to ensure genuine equality of results implies accepting the postulate of educability advanced by Bloom (Bloom, 1976; Slavin, Karweit & Madden, 1989), to accept that school gives more to those who have less, and to break with ideologies based on talents or (innate) aptitudes. In terms of action, it is important to ensure that the education system assigns itself such an objective among its ultimate aims. In the conviction that pupils’ performance is not fixed at a given and permanent level by stable aptitudes, those who adhere to these principles are attempting to reduce the scale of a series of forms of negative discrimination and demanding voluntarist policies that result in the implementation of positive discrimination (Crahay, 2000; Demeuse & Monseur, 1999; Slavin, Madden, Dolan & Wasik, 1996), whose real effectiveness has yet to be demonstrated (Slavin & Fashola, 1998).

At present, it should be verified that no public funds are being used to reinforce inequalities, for example, more coaching for pupils who are already advantaged, and their distribution should be analysed, to check that it is appropriate to requirements identified as correctly as possible. To summarise these objectives, Husén (1972, p. 43) put it very elegantly: “Paradoxically, we could say that everyone should be given equal opportunities of unequal treatment with regard to social differences”, long before the statement attributed in France to Minister Savary: “Giving more to those who have less”.

## **Using indicators of equity**

As we have seen, evaluating the equity of education systems does not imply ruling out analysis of their effectiveness. For some people, like Bloom, the two concepts are even synonymous. However, we can also distinguish both: the two dimensions do not necessarily overlap, and both enable a judgement to be made of the quality of education systems. With this in mind, the construction of our framework of indicators of equity of education systems has focused on indicators of equity. These indicators were organized to enable analysis of systems that also take account of external or “contextual” parameters. Even if internal processes of education systems can reduce or increase inequalities between pupils, it is also important to take account of economic, social, and cultural contexts of which the systems are a part.

To answer the question raised in this section, we are trying first of all to find out to what extent contextual inequalities are observed to have been increased or reduced on leaving the

education systems. Then we analyse to what extent education systems are or are not responsible for these increases or reductions, in terms of internal processes.

### **Are increases or reductions in contextual inequalities observed within school systems?**

When you restrict your ambitions to a single study and when very varied information is collected about the same individuals, greatly enhanced analyses can be carried out. That is what PISA makes possible, since both data relating to skills (in reading, maths, and science) and information about the profession of parents, their qualifications, the aspirations of pupils, the way in which they describe their family and school environment (assistance received and available, funds and material resources, climate). The publications relating to PISA and drafted under the responsibility of the OECD and relating to the first data collection in 2000 have already found a large number of uses. It is not our aim to quote them all here, but to show their diversity and the wealth of possibilities. Other analyses are still being carried out at present, since the data has been made entirely public. We shall mention a special analysis that was performed in the context of the project whose results we are presenting.

First of all, it is relatively simple to highlight the impact of the socio-economic and cultural status of pupils taken individually and schools, i.e. the average socio-economic and cultural status of pupils who attend them, on the performance of pupils, in written comprehension (OECD, 2001, p. 216). Graph 1 below shows, on the one hand, the effect of an increase of half a standard deviation of the socio-economic and cultural index of individuals on their performance in written comprehension, and the impact of an identical increase in that index, measured this time at the level of the institution. In Belgium, this increase is 56 points on the reading comprehension scale when it is the average index of the establishment that is increased by a half standard deviation, whereas it is only seven points when it concerns an individual increase. By way of comparison, in Iceland, the increase on the reading comprehension scale is only 5 points when we consider an average increase in the socio-economic and cultural level of the educational institution, but 11 points when we observe an identical increase with regard to individuals. At the other extreme, but quite close to Belgium, Germany recorded an increase of 66 points at the “institution” level, but 8 points at the “individual” level. This figure is entirely consistent with similar analyses carried out on data from the *Third international study on mathematics and sciences* (Demeuse and Monseur, 1999). Belgium, Germany, the Netherlands<sup>17</sup>, and Austria positioned themselves among the countries where the institution effect is strongest, in contrast to the situation in the Nordic countries<sup>18</sup>. The different values displayed on the graph enable us to assess the importance of economic, social, or cultural status on performance, both individually and via the institution attended (Table 8.1, OECD, 2001). Some countries more than others are seeing the performance of institutions improve considerably, only via a modification of the composition of the audience, without any other form of improvement in teaching, while countries that have little social segregation can only hope to improve the average performance of their institutions by an improvement in teaching.

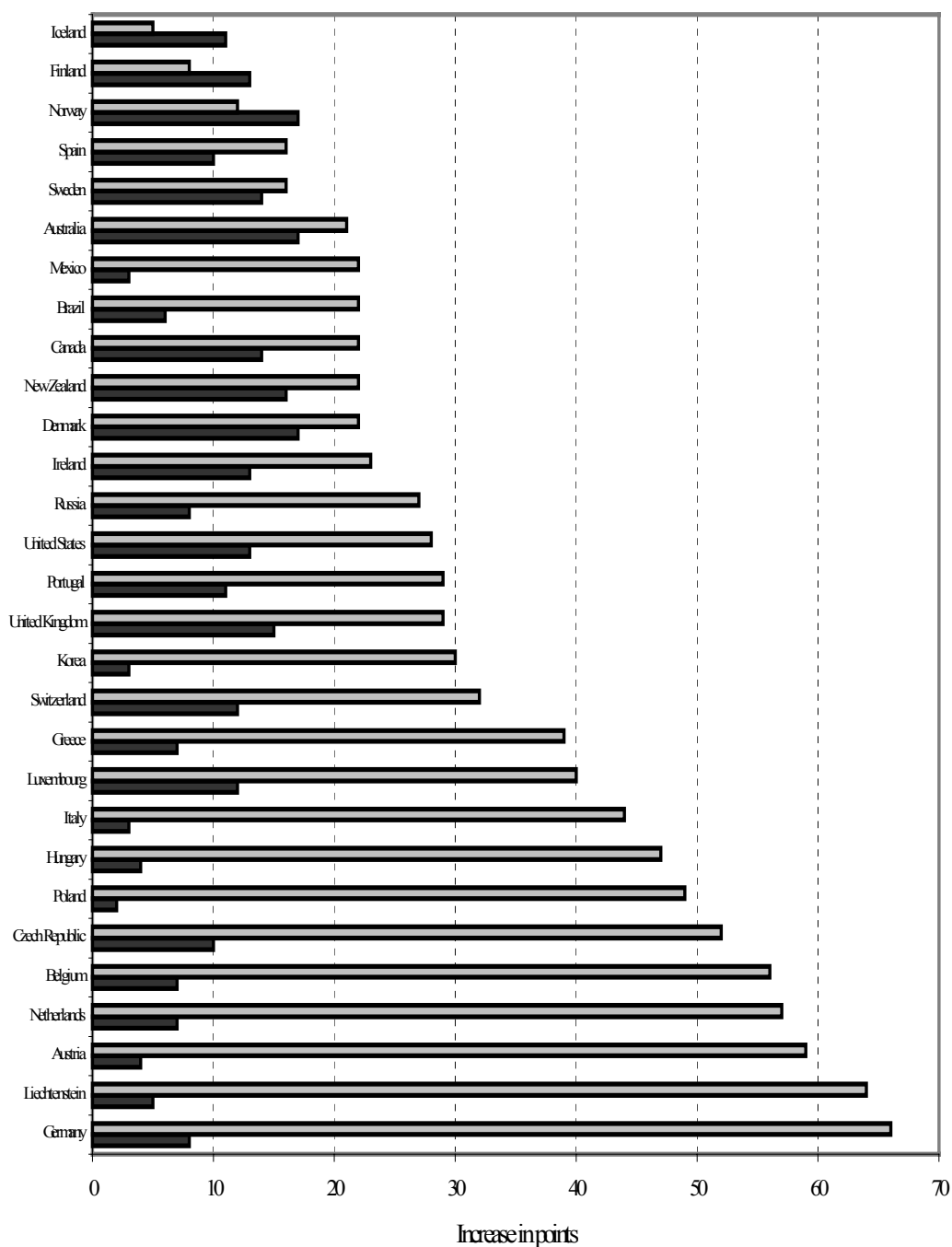
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<sup>17</sup> The data relating to the Netherlands must be treated with caution, because the sample comprises a very high rate of initial refusal to participate, which does not guarantee the representativeness of the sample when estimating national averages.

<sup>18</sup> For all OECD countries, the impact of the average socio-economic and cultural level of the establishment seems to play a more important role for boys.

It is hardly surprising that Martin and Owen emphasise, from the foreword to the report on the initial results of PISA 2000 (OECD, 2001, p. 4), that results obtained in the international tests can vary, not only on average, from one country to the other, but to what extent even within the same country they can be sensitive to the socio-economic context of the pupils. They continue: “One of the edifying conclusions of PISA is that some countries that succeeded in attenuating the effects of economic inferiority appear among those who are already producing the best average performance. The experience of these countries shows that it is possible to raise the level of performance while reducing inequalities, and issues a challenge to other countries by demonstrating that quality and equality are not incompatible”.

**Graph 1.** *Impact of an increase of a half standard deviation of the socio-economic and cultural index on the score of reading comprehension in the PISA 2000 test in the case of an increase in the index at individual level (dark bars) and an increase in the average socio-economic and cultural level of an educational institution (light bars) (after OECD, 2001, p. 199)*



Analysis of the national socio-economic gradients also provides interesting answers to the question about the link between performance and socio-economic status of students (OECD, 2001, pp. 200-209). This gradient, which is actually the materialization of a line of regression of reading performance on the economic, social and cultural status, indicates an anticipated overall effect: an average elevation of performance depending on an average elevation in the economic, social and cultural status. The analysis, country by country, set out in Table 4, allows valuable information to be added: while on average, in the OECD zone, 20% of the variation in reading performance of pupils (combined scale) is connected with economic, social and cultural status, that proportion varies, for the European Union Member States, between 9% in Finland and 24% in Austria.

**Table 4.** *Relationship between performance of students and the socio-economic context*

*Estimate of the level, slope and strength of the relationship between student performance on the combined reading literacy scale and the PISA index of economic, social and cultural status (ESCS). Source: OECD (2001, p. 308).*

Country	Unadjusted mean score	Mean score if ESCS was equal to the OECD average		Slope of socio-economic gradient		Strength of relationship	Length of projection of gradient line	Percentage of missing for SESC index
	Mean score	Mean score	Standard error	Score point difference associated with one unit on the ESCS	Standard error	Percentage of explained variance	Difference between 95 <sup>th</sup> and 5 <sup>th</sup> percentile of the ESCS	Percentage of students
B	507	520	(2.84)	<b>48</b>	(2.35)	21	3.1	1.9
DK	497	498	(2.32)	42	(2.07)	15	2.8	1.7
D	484	476	(3.80)	<b>60</b>	(3.44)	22	2.8	1.7
EL	474	484	(4.12)	38	(3.05)	15	3.3	1.7
E	493	504	(2.23)	<b>32</b>	(1.52)	16	3.3	1.2
F	505	512	(2.48)	<b>47</b>	(2.17)	22	2.9	1.1
IRL	527	526	(2.89)	38	(2.22)	13	2.9	1.1
I	487	487	(3.11)	<b>32</b>	(2.35)	11	3.1	0.5
L	441	447	(2.10)	<b>46</b>	(1.69)	24	3.4	2.4
A	507	507	(2.62)	41	(2.26)	14	2.7	0.6
P	470	488	(3.76)	40	(2.09)	20	3.6	0.9
FIN	546	546	(2.22)	<b>30</b>	(2.40)	9	2.9	0.5
S	516	504	(1.97)	<b>36</b>	(1.86)	11	2.7	1.0
UK	523	519	(2.31)	<b>49</b>	(1.87)	19	2.9	1.8
NO	505	487	(3.03)	41	(1.83)	13	2.9	1.7
CH	494	499	(3.55)	<b>49</b>	(2.24)	19	3.0	1.1
<b>OECD</b>	<b>500</b>	<b>505</b>	<b>(1.31)</b>	<b>41</b>	<b>(0.97)</b>	<b>20</b>	<b>3.0</b>	<b>1.7</b>

## Are the systems responsible for these increases or reductions in inequalities?

Highlighting mechanisms which do or do not encourage equity in and on leaving the education systems is particularly complex due, in particular, to the fact that the school is part of a particular society, and therefore it is not easy to identify the actual effect of the school institution.

**Table 5.** *The social, economic and cultural context in which European educational systems operate*<sup>19</sup>

Country	Proportion of poor households	Dispersion of household resources	Unemployment rate	Proportion of adults with a low level of education	Dispersion of cultural resources	Dispersion of cultural practices	Dispersion of professional aspirations
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
DK							
NL							
FIN							
S							
D							
A							
B							
EL							
F							
IRL							
CH							
L							
P							
E							
I							
UK							

*Countries were classified in ascending order, depending on the number of contextual criteria on which countries stood out as being negative.*

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- (1) In red, countries where the proportion of children in poor households is highest between 13.80 and 20%; in orange, from 7.70 to 12.20% of children in poor households, and in yellow, from 3.90 to 4.50%. The blank boxes refer to missing data. Indicator A.2.1
- (2) In red, dispersion of household resources is over .90, in orange, between .78 and .85, and in yellow, between .68 and .76. Indicator A.2.1.
- (3) In red, the unemployment rate is over 10%, in orange, between 5 and 9%, and in yellow, less than 5%. The blank boxes refer to missing data. Indicator A.2.2.
- (4) In red, over 45 % of adults have a low level of education; in orange, between 30 and 44%, and in yellow, between 15 and 29% of adults do not have a certificate of higher secondary education; The white boxes refer to missing data. Indicator A.3.1.
- (5) In red, the cultural resources are more dispersed than average, in yellow, they are less so; in orange, the dispersion of cultural resources is comparable with the average. Indicator A.3.2.
- (6) In red, cultural practices are more dispersed than average; in yellow, they are less so; in orange, the dispersion of cultural practices is comparable with the average. Indicator A.3.3.
- (7) A single colour is used: countries are comparable from this aspect. Indicator A.4.1.

From this information, we can conclude that the economic, social and cultural context in which the Spanish, Italian and British education systems seems to be harsher than in the other countries, while it is more favourable in Denmark and the Netherlands.

Moreover, the indicators set out above can also provide information about the disparities between categories of individuals concerning social, economic, and cultural welfare.

**Table 6.** *Social, economic and cultural inequalities, depending on individual variables*<sup>20</sup>

Country	Family Wealth		Unemployment rate	Level of education	Cultural resources				Cultural practices				Professional aspirations			
	Social origin	National origin	Gender	Gender	Gender	Social origin	National origin	Reading achievement	Gender	Social origin	National origin	Reading achievement	Gender	Social origin	National origin	Reading achievement
S		E		H					M		N		M		N	
EL			F	F	M				M		E		M			
IRL				M	M				M				M			
NL		E			M				M							
FIN		E		H	M				M		N		M			
UK		E		F	M				M		N				N	
DK		E		F					M				M		N	
E		E	F	F	M				M				M			
A		E		F	M				M		E		M			
P		N	F	H	M				M				M		N	
CH		E		F	M				M				M			
D		E		F	M				M		E		M			
B			F	F	M				M		E		M			
F		E	F	F	M				M		E		M		E	
I			F	F	M				M		N		M		E	
L		E		F	M				M		E				E	

*The countries are classified in ascending order, depending on the number of contextual criteria for which countries stand out in a negative way.*

<sup>20</sup> The colours refer to the degree of equity, depending on the scale of differences between the categories concerned. The red indicates a less fair situation than in other countries, while yellow indicates a less unfair situation.

The orange refers to an intermediate situation, where the country does not stand out in a positive or negative way from the others for the aspect under consideration. The blank boxes indicate that the data is not available for the country and the indicator under consideration.

The letters refer to the category of individuals for which the situation is less favourable: E, for persons of foreign origin, N for people born in the country, F for women or girls, M for men or boys. Concerning the social origin and reading performance, the most disadvantaged categories are, respectively, persons of modest social origins, and the pupils with the poorest performance.



According to Table 6, France, Italy, and Luxembourg are the countries where the disparities between individuals, according to their social or national origin or their gender, are more pronounced than in other countries, whereas they are less pronounced in Sweden, Greece, Ireland, the Netherlands, and Finland. Let us look now at the extent to which educational processes deal with these categories of individuals.

It is possible to reach a better understanding of the effect of the various school mechanisms through comparisons with other education systems, like the procedure used by the IEA (International Association for the Evaluation of Educational Achievement) or the OECD, in the context of PISA (Programme for International Student Assessment). This comparative approach is that which guided the equity indicators project whose results are being presented here. It is also that position which was adopted by the team which carried out a previous study in the context of the *Socrates* III.3.1 Programme, financed by the European Commission<sup>21</sup> (Demeuse and Monseur, 1998). In that study, relating to the effectiveness of education systems, the authors were keen to point out the relationship between effectiveness and equity:

*As the effectiveness of an education system cannot be limited to the average performance of its pupils, we considered the variability of the pupils' results and the impact of the arrangements for grouping them into classes, schools and courses of study on achievement. At this level, we emphasized particularly the importance of equity in the educational system.*

Adopting a prudent attitude, the authors of this study are attempting to justify particular mechanisms used by certain systems, with the result of breaking down the school population into teaching units (classes, schools) that are relatively homogenous. To this end, a dozen indicators were adopted to describe the segregation mechanisms which education systems may use to homogenize learning units (single-sex schools and classes, schools organized on a philosophical or religious basis, repeating a grade, separate courses of study and options, either within schools, or organized in different schools, dividing into sectors and school map, age grouping, specialized teaching organized separately, etc.). These indicators (Monseur and Demeuse, 2001) are not used just for reporting the presence or absence of certain mechanisms, but give the magnitude wherever possible. The analysis of the data collected, from the 15 EU Member States, enabled a distinction to be drawn between three groups: the Nordic countries (Denmark, Sweden and Finland), which organize very heterogeneous classes and schools and generally do not use the segregation mechanism; the countries of Southern Europe (Spain, Portugal, Italy, France and Greece); the United Kingdom, Ireland and Austria, which use certain mechanisms, and Belgium, the Netherlands and Germany, which make massive use of them. The systems that practice most segregation by creating the most homogeneous classes possible are not usually those that obtain the best results in international tests, which does not enable them to compare the effectiveness of such measures to a more comprehensive approach.

The indicators relative to the process, which have been integrated into our framework, also aim to highlight the effects of segregation (B.2.3), but also the differences in learning conditions (perception of support provided by teachers, B.2.1, perception of the climate in the classroom, B.2.2).

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<sup>21</sup> Convention n° 96-01-3-3PE-0406-00.

The effects of segregated schooling were measured from data drawn from two international studies: the *Third international maths and science study* (TIMSS) by the IEA (1995) and the *Programme for International Student Assessment* (PISA) by the OECD (2002). The populations in these two studies are slightly different since, in the former case, these are pupils belonging to classes selected overall in the 7<sup>th</sup> and 8<sup>th</sup> grades, while in the latter, these are 15 year-old students, whatever point they have reached in the curriculum, who were selected in various educational establishments sampled. The latter study, apart from its more recent character, also offers the advantage of relating to three disciplines: reading in the language of instruction, maths, and science, whereas the former only relates to maths and science. The analyses carried out on the data available for the majority of the EU Member States (all the countries in the case of PISA) highlight a gender-based segregation in countries that still have education organized on a religious basis, although this segregation is not usually associated with a segregation in terms of results. On the other hand, it appears that systems that practice little segregation at school level record low social differences and relatively similar results between institutions. On the other hand, systems which segregate more tend to increase differences in results between social groups. From this viewpoint, and without having to sacrifice effectiveness for equity, quite the contrary, it appears that Finland, whose average results are high and not very dispersed, can be compared with those of Germany, where the average results are relatively poorer and their dispersion much more pronounced (B.2.3). These results also concur with those of the study already mentioned (Demeuse and Monseur, 1998) in the field of organization of educational systems in Europe.

The examination of differences in the process can also be continued in the field of education spending. It is usually rather difficult, at least in the industrialized countries, to find a simple relationship between overall education spending and academic achievement. However, it is interesting, in the field that concerns us, to consider the relative allocation of resources within each of the systems: who actually benefits from them? Is the priority basic education that is compulsory for everyone, or tertiary education? (B.1.2). Another approach consists of analysing the sharing-out of resources for a given level of schooling, and in particular, for compulsory education. PISA also allows this to be done. It emerges from the study that Austria stands out due to a pronounced dispersion of teacher-pupil ratios between the various institutions attended by 15 year-old pupils. France, Italy, Portugal and even more so the United Kingdom, Sweden, and Switzerland are characterized by a more equal distribution. The consideration of class sizes leads to a slightly different classification. This parameter is particularly variable in Austria, as well as in Spain, France, and Portugal, while this is not the case in Denmark or in Finland. In this field, the tendency in all European countries to teach pupils of disadvantaged social origin in smaller classes should be pointed out. This situation is particularly pronounced in Belgium, Austria and in France. Positive discrimination policies certainly have some influence on this observation. In the majority of countries, except in Finland, Ireland, Italy, and the United Kingdom, students whose parents were born abroad also tend to be taught in smaller classes. The weakest pupils are also taught in classes whose size does not exceed that of classes attended by the strongest pupils, in all the countries of the Union. Austria, Belgium, and the Netherlands are the countries where the classes attended by the weakest students are smallest.

Besides the material conditions, the climate in the classroom also constitutes a factor that is often quoted among the variables that influence school results. It is via the questionnaire sent to students themselves that this factor was studied through the PISA results (B.2.2). A series of questions was sent to the students in the sample. These questions generally relate to the possibility of working properly, in a relatively calm environment, without wasted time or negative behaviour by the pupils. Boys rather than girls report a climate relatively conducive

to work, even if it is difficult to distinguish between their possibly lesser sensitivity to random events and the fact, which is surprising in systems that are in principle mixed, of attending classes that really are less disrupted. Where significant differences exist, they also lead (in 4 cases out of 5) to the conclusion that the most socio-economically disadvantaged students benefit from a more favourable climate.

Only Greek students of modest origins, including those coming from families where the parents were born abroad, indicate that they are in a less favourable situation than other pupils are. In 10 of the 15 EU Member States, and in Switzerland, the weakest students also point to a less favourable disciplinary climate than pupils do whose performance is better. The weakest pupils state significantly more than the others that they are in classes where the learning environment is disrupted by noise or misbehaviour by pupils.

The support provided by teachers, at least as perceived by students (B.2.1.), can also constitute an important element. Students in the Benelux countries and their Italian, German, and Austrian colleagues state, on average, that they receive the least support. At the other extreme, we find Denmark and Sweden as well as Greece, Ireland and Portugal. In 10 out of 15 EU Member States, girls are more positive than boys are. Students of modest origins or whose parents were born abroad are generally more positive than other pupils about the support received. On the other hand, in the majority of EU Member States, the weakest students consider that they do not receive support that is significantly superior to that of stronger pupils. In Denmark and the United Kingdom, they even record a more negative opinion.

It appeared useful to add to these indicators information about the pupils' perception of being treated fairly (B.2.4). Via a specific survey, organized in the 5 countries associated with our study (see methodological annex devoted to the *European Pilot Study on Perceptions of Equity at School*), questions were asked of a sample of 8<sup>th</sup> grade students, to find out their perception of fairness in the treatment of pupils. Overall, the pupils claim to be treated fairly (*"the teachers treat me fairly"*) and their scores are awarded in the same way. On the other hand, they are more critical when asked to assess teachers' behaviour towards certain groups: so they do not consider that everyone is equal when it comes to rewards or punishments.

While there are few differences between girls and boys, it is mainly pupils who claim to receive the lowest marks who are the most critical, as are those whose parents have the most prestigious professions. A summary table relating to the process indicators is shown below.

**Table 7. Inequalities in the education process<sup>22</sup>**

Country	Quantity of education received						Quality of education received														
	Basic /tertiary education	Tea- chers/ pupils ratios	Class size	Schooling in small classes			Segregation					Disciplinary climate in the classes					Support provided by teachers				
				Social origin	National origine	Weak students	Reading	Parental occupa- tion	Gender	Linguis- tic origin	National origin	Mean	Weak students	Gender	Social origin	National origin	Mean	Weak students	Gender	Social origin	National origin
	(1)	(2)	(3)	(4)			(5)					(6)					(7)				
CH														M							
S														M							
L														M				M			
F																		M			
NL														F							
DK																					
D														M							
FIN																		M			
IRL																		M			
P														M				M			
NO																					
EL																		M			
B																		M			
UK																		M			
I														M							
A														M				M			
E														M				M			

*Countries were classified in ascending order, depending on the number of contextual criteria on which they stand out negatively.*

- (1) In red, spending on tertiary education is at least twice as high as spending for basic education; in yellow, it is less than one and a half times as high. Indicator B.1.2.
- (2) In red, the dispersion of teacher-pupil ratios between establishments in the country is higher than 5; in yellow, it is lower than 3. Indicator B.1.2.
- (3) In red, the dispersion of class sizes in the country is higher than 5; in yellow, it is lower than 4. Indicator B.1.2.
- (4) In red, countries in which categories of pupils being studied are in the least small classes; in yellow, those where the categories of pupils concerned are in the smallest classes. Indicator B.1.2.
- (5) In red, the 4 countries that had the highest segregation index; in yellow, the 4 countries that have the lowest index. Indicator B.2.3, tab. 1. (Pisa)
- (6) and (7) For gender: In red, the countries in which the value of the indices is lower than the EU average and is significantly less favourable for the categories concerned; in orange, the countries in which the differences are significant, but lower than the average value for the Union; in yellow, the difference between categories are not significant. "H" indicates that boys are less well treated. For social and national origins and weak pupils; in yellow, the "high risk" category is significantly better treated, in orange, no significant differences; in red, it is significantly less well treated. Indicators B.2.1. and B.2.2.

## 4. To what extent do educational inequalities benefit the disadvantaged and encourage social mobility?

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According to prevailing practice, we use the term “disadvantaged” to refer to those who have fewer social resources than others or belong to a social category that is subject to discrimination that handicaps them in using their resources<sup>23</sup>.

Education can benefit the disadvantaged in two ways. On the one hand, by giving them educational resources that can be used in the real world. That is what is at issue here, transcending the equality of educational opportunities, the social return of qualifications obtained by the disadvantaged, whether that return is expressed in terms of access to employment, in salaries, in access to higher and middle social classes, to residential districts, etc. Furthermore, by putting the skills of the more educated at their disposal. Let us consider these two modalities.

### **Benefits associated with educating the disadvantaged**

As we saw earlier (Question 2. Benefits associated with education in the various European countries), the return of a qualification may vary with the group to which the holder belongs. If it is less for the disadvantaged, it has a direct consequence from the viewpoint of fairness: that means that social conditions are preventing the benefits of education from being distributed proportionally to contributions, in this case qualifications<sup>24</sup>. That also has an indirect consequence: young people of disadvantaged categories are less encouraged to obtain higher qualifications than other young people are, because for them, the return of these diplomas is lower. That harms equality of educational opportunities.

In terms of social mobility, Checchi *et al.* (1999) showed that the return on higher education for the most disadvantaged was lower in Italy than in the United States. In France, in 2001, for all categories of qualifications, those leaving the education system whose parents were

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<sup>23</sup> This definition rules out, for example, physical disabilities, where the arrangements for taking this into account have been widely debated by theoreticians of justice. Rawls, for example, considers that policies for them do not reflect the basic structure of society, for which he was criticized. Without making this into a question of principle, we preferred to concentrate on the handicaps that derive from the functioning of society, and which this has a direct role to regulate.

<sup>24</sup> One could argue that this inequality may not be unfair if it is the effect of the wish of the disadvantaged, for example, to remain in the social environment in which they grew up. However, one may find it strange that a child from a disadvantaged background who has invested in education then decides not to use the result of that investment. Mingat and Eicher (1982) advanced the hypothesis that the poorest chose, among the courses of study in higher education, the least risky, which are also the least profitable. In our opinion, this interpretation, like those based on the idea that children of less-favoured categories have a lower social capital than others, explain this situation, but do not justify it from the viewpoint of fairness.

teachers or executives more often entered a higher or intermediate profession<sup>25</sup> (MEN-DPD, 2002). Along the same lines Goux and Maurin (1997) show that in France, the “reproduction coefficient” is positive: with equivalent qualifications, children from two different social categories have more chances of reproducing the situation of their fathers than reversing it, a situation which is obviously unfavourable to the disadvantaged.

For inequalities in income associated with education, the results vary depending on the country. Lémelin and Houle (2001) calculated that in Quebec, the return on education reduced with the level of qualifications of the father. The review of the literature that they provided with the results shows similar results in the United Kingdom, but the opposite in Greece, Israel, France, and the United States, countries where the return of education increases with social origin.

We only found internationally comparable data for one of the advantages associated with education – access to a higher social category than that of one’s parents – and for three countries: Spain, Italy and the United Kingdom. Taken from the *European Community Household Panel*, they reflect the current situation and social origin of individuals aged from 16 to 30 years in 1998, and provides information about the influence of the educational system during the periods when that population was educated. It compares the social status of these individuals according to whether the highest qualification that they obtained was a higher education degree or the higher cycle of secondary education, or a qualification at a lower level.

In these three countries, it is the United Kingdom where social mobility is greatest, whether for the population as a whole, or for children of the disadvantaged classes. Nevertheless, it is not in these countries that the contribution of education to this process is the highest.

For a young person belonging to a disadvantaged category, holding a higher education degree increases the chances of belonging to a higher category than one’s parents do, and this applies in the three countries. The increase is most marked in Italy: a young person in a disadvantaged category has a 7 in 100 chance of belonging to a higher social category than his parents if he has a low level of education, and a 40 out of 100 chance if he has a degree. The degree multiplies his chances by 5.5, compared with 4.9 in Spain and only 1.4 in the United Kingdom, where poorly educated young people are much more likely to be upwardly mobile than in the other countries. That result, with regard to the respective positions of Italy and the United Kingdom, is coherent with previous research (for example, Müller and Schavit, 1998).

However, this external benefit must be weighted by the internal equality (in the education systems themselves) of chances: if children of manual workers have almost no chance of entering higher education, the fact that the external benefit of this level of education is very high for them does not mean that the benefit that they derive from education is very great. One approach to measuring this benefit is to consider that it would be high in a country where the following were observed simultaneously:

- a strong link between social origin and level of education;
- a direct link between low social origin and low social destination;
- a strong link between education and social destination.

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<sup>25</sup> However, this advantage reduces with the level of the diploma. The population is that of young people who have left the education system between two and nine years ago.

Which is where we get the idea that one can measure the benefits that the disadvantaged can expect from education through the ratio of the third link to the first two.

The following table presents the increase in chances of being in a high position according to the second term of the link (social destination or education) if we are in high position according to the first term of the link (social origin or education).

**Table 8.** *Role of education in social mobility in three European countries* (Source: European Community Households Panel, 1998)

	Spain	Italy	United Kingdom
(a) Social origin → Social destination	2	6	1
(b) Social origin → Education	2	5	1
(c) Education → Social destination	7	12	3
(c) / (a) + (b)	1.8	1.1	1.5

*The coefficients indicated in the first three lines are odd ratios. The reference population is all adults from 16 to 30 years.*

According to this analysis, education plays the greatest role in social mobility in Spain, in particular because the inequality of educational opportunities is lower there than in Italy, just as the direct link between social origin and destination and the effect of education on the destination class is greater than in the United Kingdom.

### **The contribution by the most educated to the expectations of the disadvantaged**

Rawls' theory endeavours to define the conditions for fair cooperation and benefits for all between individuals who have different concepts of what is "good". To do that, it imagines a fictional situation in which individuals deliberate, behind a "veil of ignorance" – while not knowing their own characteristics, nor their social position, nor their conception of what is "good" – of the institutions and rules that form the "basic structure" of society.

According to him, when placed in such a situation, individuals will only be able to agree on the following three principles:

1. Each person has an equal right to a completely adequate system of basic liberties that are equal for all, which are compatible with a single system of liberties for all (principle of equal liberty).
2. Social and economic equalities must meet two conditions:
  - 2a. They must be attached to functions and positions that are open to all, under conditions of fair and equal opportunities (principle of fair equality of opportunities).
  - 2b. They must provide the greatest possible benefit to the most disadvantaged members of society (principle of difference).

These principles are presented hierarchically. The first takes priority over the other two, and "2a" takes precedence over "2b".

One of the reasons why individuals choose these principles is that they apply the criterion of the “maximin”: they seek, out of prudence, to maximize their benefits in case they might find themselves among the disadvantaged.

If we apply, as Rawls himself invites us to do<sup>26</sup>, the principle of difference to education, it follows that differences in education between individuals are justified if they are placed at the service “of long term expectations” of the most disadvantaged. It must be added that, again according to Rawls, it is illusory to hope to obtain perfect equal opportunities, unless one does away with the family, with the consequence that the inequalities between social groups that remain even if one endeavours to attain as fully as possible the principle of fair equality of opportunities have the same status as inequalities of “natural talents”, and therefore, are only justified if they are put at the service of the disadvantaged. In fact, the basic structure of society should not “eliminate” the “contingent” inequalities that it inherits (inequalities of natural abilities or initial position in society), but turn them to the benefit of the disadvantaged.

For Rawls, the principle of difference is not dictated in any way by charity or pity for the victims, which takes the place of a moral conscience. It is a political principle, adapted to a world where wealth grows incessantly and where, left to themselves, inequalities can but grow and equality of opportunities becomes more and more remote, to the point where the very objective of fairness is threatened: social cooperation on an equal footing and the political system that arises from that cooperation: democracy. The principle of difference must be understood in its relationship with the principle of equal opportunities: it must compensate what remains of unequal opportunities, and in doing so, guarantee that, since the situation of the poor and the rich remains commensurable, the principle of equal opportunities still has a chance to apply. That is why, according to Rawls, the system of democratic equality (his) is more stable than “liberal equality”, which shares with it the principle of fair equality of opportunities, but replaces the principle of difference by the (Pareto) principle of effectiveness.

We attempted to make the principle of difference operational, although it is disputed. According to Nozick (1974), “using a talented individual, using his talents for the common good or for the good of the most disadvantaged (...) is totally illegitimate for someone who takes liberty and therefore the inviolability of persons seriously” (Van Parijs, 1991). For others, the danger is, on the other hand, in relation to the scale of inequalities that this principle might allow. It seems to us that, both due to the central role of Rawls in the philosophy of justice, and through the response that the principle finds in the common conscience, one should try to find clues to the extent to which, in various countries, the most educated serve “the long-term expectations of the disadvantaged”.

How to decide whether the action by the most educated is favourable to the long-term expectations of the most disadvantaged? It is possible to discern direct and indirect effects.

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<sup>26</sup>“ The difference principle (...) does not require society to try to even out handicaps as if all were expected to compete on a fair basis on the same race. But the difference principle would allocate resources in education, say, so as to improve the long term expectations of the least favored. If this end is attained by giving more attention to the better endowed, it is permissible; otherwise, not. (...) We see then that the difference principle represents, in effect, an agreement to regard the distribution of natural talents as a common asset and to share in the benefits of this distribution whatever it turns out to be” (Rawls, 1971, 17, paperback edition, p 101)



The direct effects are the immediate consequences of the practice of the most educated on the most disadvantaged.

The main practice is professional practice. We tried to measure whether, in certain countries more than in others, professional activity by the most educated was to the benefit of the poorest. This indicator relies on the following principle: all other things being equal, in particular the inequality of equal opportunities, an education system is fairer if the most qualified put the skills that they have acquired at the service of the most disadvantaged. However, this attempt failed. On the one hand, collecting relevant data appeared to be a job that was beyond the possibilities of this project, and on the other hand, this venture comes up against conceptual problems, related to the fact that, while there are very clear-cut cases, where one could decide to limit an indicator, and which generally relate to certain “professions” (lawyers, architects, doctors, teachers), others are less clear: a corporate lawyer who works for a car manufacturer is also working for that manufacturer’s poorest customers. More generally, anyone working in a business that contributes to growth could claim, admittedly with varying degrees of justification, that the fruits of that growth always spread in the end, and that therefore his work benefits the most disadvantaged<sup>27</sup>.

We also took an interest in living side by side: if the most educated people live in the same districts as the poorest, they show more of their shared humanity, they raise the aspirations of young people in those districts, and are more equal. In France, for example, the population census allows a calculation of segregation within zones of about 2000 inhabitants, and it is probable that the same applies in many European countries, but we were unable to complete this job in the context of this project. So we are interested in two aspects of living side by side for which data is more easily accessible<sup>28</sup>: the fact of the “most educated” and “disadvantaged” having children together, and the fact of sending their children to the same schools. The results are very polarized from a geographical viewpoint. The most educated live with the most disadvantaged more in the countries of the North (Ireland, Norway, Sweden and Denmark) than in the countries of the South (Spain, Italy, Portugal), to which we should also add Luxembourg.

We also considered the values of the most educated. The idea is that the more the most educated people claim to share the values of solidarity, the more they should support solidarity mechanisms or participate in solidarity actions. For example, gifted young girls from poor backgrounds who received grants to attend a prestigious “college” in the USA, and whose discourse demonstrates an intention to become “agents of change and lawyers serving the disadvantaged” are evidence of a fairer education system than if they had just declared their satisfaction at having the hope of joining the upper classes (Marantz-Cohen, 1998). To do this, we used data drawn from the *European Value Survey* (EVS) of 199<sup>9</sup>. This reveals a discrepancy between declared values and practices, at least those which are measured by the EVS. We used three criteria showing acceptance of values of solidarity: considering “eliminating the serious inequalities of income between citizens” as an important characteristic of a fair society; considering “guaranteeing that the basic requirements are satisfied for all” as an important characteristic of a fair society; considering that social

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<sup>27</sup> To which one could reply that the length of the detour after which the poor benefit from the activity and the degree to which they benefit from it must be taken into account. The concept of “long-term expectations”, different from the concept of welfare, may lead to a greater appreciation of the contribution of the most educated to the less advantaged being able to raise their social status (intra-generational mobility), educate their children better, and uphold their rights and interests more effectively, while having a better rapport with culture.

<sup>28</sup> In the PISA data, which means that it relates to parents of 15 year-old young people, let’s say aged between 35 and 50.

injustice explains the presence of the poor. For at least two of these three criteria, France, Greece and Spain are in the leading group, while Austria and Finland are among the back markers. On the other hand, when it is a matter of finding out whether the most educated are members of associations promoting solidarity, the highest proportions are to be found in the Netherlands, Sweden and Finland, and the lowest are in Germany, Luxembourg, and Italy. One possible interpretation is that in the countries that are fairer according to values than according to their practices, subscribing to the values of solidarity would be mainly rhetoric. Another possible interpretation is that in these countries, there is more reliance on action by the State, possibly guided by the social movement, rather than on one's own practice and behaviour to move towards a fairer society.

The indirect effects involve financial redistribution mechanisms. We decided not to consider the “fiscal rate of return” of education as such (see the discussion of this indicator in the technical annex D.2.1) and preferred to use an indicator on the measurement in which, in each country, social transfers reduce the proportion of people on low incomes – supposing that the most educated are among the contributors to these transfers, because they have the best salaries. The effect of such transfers is highest in Denmark, the Netherlands, and Luxembourg, while in Greece, Italy, and Portugal, it is lower. The classification of the countries on these various effects is shown in Table 9 below.

**Table 9.** *Contribution by the most educated to the situation of the poorest people*<sup>29</sup>

Country	Social transfers (1995)	Living side by side (2000)		Solidarity values and practices of the most educated (1999)			
	Reduction of the percentage of the poor with the social transfers	Ratio of young with one parent high educated and one parent « disadvantaged »	More chances to be in an « advantaged » school if parents are more educated	Social fairness implies to limit inequalities	Social fairness implies the guarantee of basic requirement	Social injustice explains the presence of the poor	Members of association promoting solidarity
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B							
DK							
D							
EL							
E							
F							
IRL							
I							
L.							
NL							
A							
P							
FIN							
S							
UK							
NO							
CH							

The yellow colour indicates that the transfers, practices or values of the most educated people are highly favourable to the most disadvantaged, and the red that they are not very favourable, or at any rate less favourable than in other countries. The orange refers to an intermediate position, and the blank boxes show where data is not available for the country and the aspect under consideration.

<sup>29</sup> The table is based on the data presented in indicator D.2.1.

Three scores were then calculated, to summarise the contribution of the most educated people to the situation of the most disadvantaged in terms of practices (columns 1, 2, 3 and 7) and values (columns 4, 5 and 6). The score was calculated depending on the number of times when the contribution by the most educated people to the situation of the most disadvantaged was high, moderate, or low. The third column of Table 10 also gives an aggregate score, for values and practices of the most educated people.

**Table 10.** *The benefits that the disadvantaged derive directly or indirectly from the activity of the most educated people (aggregate scores).*

Country	According to the most educated's practices	According to the most educated's values	According to the most educated's practices and values
B	2.0		
DK	2.7		
D	1.8	2.0	1.9
EL	1.5	2.3	1.9
E	1.5	2.7	2.0
F	1.8	2.7	2.1
IRL	2.3	2.3	2.3
I	1.0	2.0	1.4
L.	2.3	1.7	2.0
NL	2.8	1.7	2.3
A	1.8	1.3	1.6
P	1.5	2.0	1.7
FIN	2.0	1.0	1.5
S	3.0	2.0	2.5
UK	2.0		
NO	2.5		
CH	2.5		

The higher the score, the greater is the contribution by the most educated people to the situation of the most disadvantaged. For Germany, there are three “2s” and a “1”, in the four “practice” columns shown. The “practices” score for Germany is therefore  $7/4 = 1.8$ . It has three “2s” in the three “values” columns shown for the country, so its “values” scores is therefore  $6/3 = 2.0$ . Its “practices and values” score is therefore  $(7+6)/(4+3) = 13/7 = 1.9$ .

Obviously, these scores have to be taken not as genuine measurements that enable countries to be ranked, but as a convenient method of aggregating measurements that are, on the one hand, imperfect and, on the other hand, partial according to two senses of the term: first of all, for certain countries, not all the data is available (e.g. there are only two columns for Norway); then, data shown here only partially represents the dimensions that would have to have been recorded to really measure the effects of relations between the educated and disadvantaged. For example, we have no measurement of the feeling of superiority that may affect the former in relation to the latter, or the feeling of inferiority that may affect the latter in relation to the former and from which the latter might suffer. As we have seen, we have no measurement of urban segregation, and neither do we have any measurement of the political proximity of the former and the latter, etc.

However, this analysis does enable us to deduce the existence of countries where rankings according to practices and values coincide (Germany, Austria and Ireland do not stand out from the average for either of the two dimensions) and others where they are in the other direction (Greece and Spain show particular solidarity according to the values and not much according to the practices while the Netherlands and Sweden show particular solidarity according to the practices declared and not much according to the values) and others where a mid-range position in one of the two dimensions does not contradict the other (practices declared in France do not contradict the values of solidarity, the values expressed in Italy do not contradict the lesser solidarity shown by practices nor the low contribution of education to upward social mobility of the most disadvantaged).

It appears possible to adopt two modes of ranking. According to the former, only the practices of the most educated can inform us about their contribution to the long-term expectations of the disadvantaged. In this case, the countries where the Rawlsian principle of difference applies most to education are clearly the Nordic countries (Denmark, Norway, Sweden), to which we should add the Netherlands and perhaps Switzerland, and those where it applies least are the Latin countries (Greece, Spain, Italy, and Portugal). According to the second mode, it is legitimate to take account of both values and principles: the geographical spread then becomes less clear-cut, since among the fairest countries, we once again find Sweden and the Netherlands as well as Ireland and, among the unfairer countries, again we find Italy, but Austria and Finland too.

It is clear that there is much work to be done if we are to move forward while observing the principle of difference or what the disadvantaged gain from the education of the most educated, especially as we consider that something important happens in this respect and deserves more work than we were able to devote to it.



# Conclusions

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The approach that we have proposed in the third part of this report relied mainly on four questions:

1. Considering that the greater the benefits linked to education, the more important it is that education should be shared out fairly, what are the benefits associated with education in the countries of Europe?
2. What is the importance of inequalities of education? These inequalities are measured according to three principles of justice: inequalities between individuals which do not hinder social cooperation; inequalities between groups which do not contradict the principle of equal opportunities; the lowest possible proportion of individuals without the minimum skills to lead a worthy and responsible life in modern society;
3. Considering that the more inequalities arise from unfair sharing-out of educational resources, the more unfair they are, what is the role of the education system itself in creating these inequalities?
4. Starting from the idea that the inequalities are less unfair if they are turned to the advantage of the disadvantaged, to what extent are the inequalities of education turned to the benefit of the disadvantaged?

Table 11 below summarises the responses that the indicators that we devised provided to these questions for all the European Union Member States, as well as for Norway and Switzerland.

Reading this table shows that in some education systems, the inequalities in education are homogenous, in that they are pronounced (Germany and to a lesser extent Belgium) or small (Finland, Sweden, and to a less marked extent, Spain and Ireland) according to the three criteria at the same time: inequalities between individuals (2), between groups (3 and 4), proportion below the threshold (5). However, it also happens that the three criteria give divergent results, which shows that it actually concerns different dimensions: few individuals are below the skills threshold in Switzerland, but inequalities between individuals are marked there, as are inequalities in skills between social groups; few individuals are below the skills threshold in Norway, while the social inequalities of skills are low there, but the differences between individuals are very pronounced.

The seriousness of those inequalities (1) is mitigated in Sweden while, as the indicators used seem to suggest, the external effects of education are less pronounced than elsewhere. In general, we observe that inequalities can be low in countries where education has pronounced external effects, which is the case for Ireland, while they can be relatively low in countries where the effects of education are low (Norway). Therefore, our data does not confirm the premise according to which inequalities are low in countries where education has few external rewards.

**Table 11.** *An approach to the fairness of European education systems*

Country	Benefits associated with education	Importance of the inequalities					Role of education system in creating inequalities		The most educated practices are they turned to the benefit of disadvantaged?
		Between individuals	Social - Skills	Social – Careers	% below thresh old	Aggregated <sup>30</sup>	Social <sup>31</sup>	In general	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
B									
DK									
D									
EL									
E									
F									
IRL									
I									
L									
NL									
A									
P									
FIN									
S									
UK									
NO									
CH									

Red has been used to mean that the country is one of those with the highest values of the indicator, or of the average of the indicators used to address the issue indicated at the top of the column. For example, Belgium is one of the countries where social inequalities of skills are greatest. This table is based essentially on aggregate scores calculated in the various chapters of the third part of this report. The yellow boxes indicate for the aspect under consideration that the country is one of those which has the lowest values, and therefore, the inequalities are smaller. The orange indicates that the country occupies an intermediate position for the indicator concerned, and the blank boxes refer to missing data.

In some countries, substantial inequalities between individuals are accompanied by practices on the part of the most educated people which are relatively favourable to the disadvantaged (9) (they have more contacts with them, they finance social transfers which are favourable to them, and take part in associations working in their favour). This is the case for Denmark, Switzerland, and Norway. In Spain and Italy, the pattern is reversed: educational inequalities between individuals are relatively small, but the practices of the most educated people are less favourable to the disadvantaged than elsewhere. In other countries, we observe at the same time that the inequalities are small and that the practices of the most educated people are more favourable to the disadvantaged than elsewhere: this is the case in Sweden which would be the fairest country if we were to use Rawlsian criteria. Denmark and the Netherlands would

<sup>30</sup> The aggregate score does not only take account of the indices used for the four previous columns.

<sup>31</sup> The indicator used is the weight of internal factors within the school system in the explanation of social inequalities in skills in reading literacy for PISA, the main factor highlighted by the analysis being the social segregation within educational institutions.



appear just behind Sweden if we used the same criteria. The unfairer countries according to this approach seem to be Greece and Portugal: the practices of the most educated people are, like in Spain and Italy, rather unfavourable to the disadvantaged, but the inequalities in education are greater than in these two education systems. Generally, the application of the Rawlsian difference principle to education produces a sharp distinction between Southern and Northern Europe, but also divides the latter between countries where practices and practices of the most educated people compensate the quite pronounced inequalities (Norway and Switzerland) and others where they rather reinforce the small (Sweden) or only moderate inequalities (Denmark and the Netherlands).

Analysis of the education process enables us to have an idea of the importance of the systems themselves in the creation of inequalities (inequalities in the allocation of duration of education and spending, as well as that of resources or characteristics associated with pupils' success). In the table above, two approaches were proposed. One (7) shows the importance of factors linked with the process of the school system in the genesis of social inequalities in written comprehension: to which extent does the fact that the most favoured have a much more constructive educational context explain their better performance at the age of 15? The other (8) uses the same method as for the other criteria to calculate a score that measures three types of inequality in the distribution of resources: disparities between individuals, inequalities between groups, resources allocated to the weakest pupils. The resources taken into account are spending per student, class sizes, teacher-student ratios, the disciplinary climate, the support received from teachers, and the absence of academic or social segregation. It should be borne in mind that the latter approach only measures inequalities, whereas the former, but based on a special criterion and dimension, measures the effect of those inequalities on skills.

According to these two approaches at the same time, only one education system is egalitarian: Sweden, while two are inegalitarian: Belgium and Austria. In Belgium, an process accompanies – or probably we should write *produces* – pronounced inequalities; in Austria, it produces “only” moderate inequalities. The fact that the inequalities are generally low in Sweden is consistent with the egalitarian process of this education system.

In the other countries, the assessment diverges according to the two different approaches. Of course, it diverges even more since they are not the same indicators, populations and measurement techniques that are used in the two cases. The first approach (7) points to a particularly pronounced effect on social inequalities in skills – besides Belgium and Austria – in Germany; a particularly small effect – besides Sweden and Denmark, in Finland, Spain, and Ireland. The second indicates a more inegalitarian process than elsewhere for Ireland (so there is a sharp divergence between these two approaches for this education system) in Greece and the United Kingdom, more egalitarian than elsewhere in France, Luxembourg, and Switzerland. For the last two education systems, an egalitarian process is nevertheless accompanied by moderate inequalities.

One could consider using other indicators than those presented here. Above all, one could conceive other methods of reading these indicators, for example more focused on consistencies, whereas we opted for a comparative and distinctive approach, pursuing a single principle of equity in the labyrinth of indicators, comparing equity, effectiveness and efficiency, etc. Two overall results appear to us to emerge from this analysis: there are definite differences in equity between education systems; there are definitely some education systems that seem more (or less) fair than others on a large majority of the criteria, but for many the judgement of their fairness varies, sometimes considerably, depending on how we read the data.



## To go further

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The lack of available data prevented us from calculating indicators that we nevertheless considered important. Therefore, one must consider these deficiencies not as a lack of interest by the authors, but as evidence of a genuine lack of available or useable data.

The most cruelly lacking data, in our opinion, could be obtained from the following information systems:

- a poll on judgements and criteria of fairness with regard to education on the scale of the European Union taken among citizens, of the type that Hutmacher (2001) presented for Switzerland;
- a test which would enable to check whether, when young Europeans leave initial education, they possess the minimum skills to live an independent and responsible life. In the absence of such a test, we had to settle for measuring, using PISA, the proportion of 15 year-olds students who had skills below a given threshold – but some of these students will remain in the system and acquire additional skills;
- a system allowing to measure and compare, on the same scale, the skills of students who leave the education system earliest and latest. Here too, we had to settle for measuring the discrepancy in performance between the poorest and best performers at the age of 15, using this as an approximate predictor for that gap at the time when they will all leave initial education.
- a test that would enable to measure the basic skills of adults who have left the education system, in relation to their personal characteristics<sup>1</sup>, including fields not yet investigated<sup>2</sup>.

We were missing other data:

- on the inequalities of economic, physical and social insecurity, to the extent that in certain countries, gains in security of the working classes encouraged the reduction of social inequalities in education (Shavit and Blossfeld, 1993);
- on certain social benefits of education, such as effects on health;
- on inequalities in expectations of parents or teachers, to the extent that these are powerful predictors of the effectiveness of teaching;

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<sup>1</sup> Such a type of test is currently under way. This is the Adult Literacy and Lifeskills survey (Statistique Canada, Educational Testing Service, OECD), which measures adults' skills in literacy, numeracy and problem-solving in association with individual, economic and social characteristics of respondents, but few European countries have found the sources of funding to take part so far.

<sup>2</sup> Like, for example, languages, because this is an important subject within the Union.

- on the personal and social development of pupils outside the field of civic education, for which we were able to use the IEA study “Civic Education” in a limited number of countries.

## **Part 4**

## **References**

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- Beaton, A.E. et al. (1996). *Mathematic Achievement in the Middle school years: IEA's Third international Mathematics and Science Study*. Chesnut Hill, Ma. : Boston College.
- Beaton, A.E. et al. (1996). *Science Achievement in the Middle school years: IEA's Third international Mathematics and Science Study*. Chesnut Hill, Ma. : Boston College.
- Becker (1964). *Human Capital. A theoretical and Empirical Analysis with Special Reference to Education*. Chicago : University Press.
- Bedar, K., Ferrall, C. (2003). Wage and test scores dispersion : some international evidence. *Economics of education review*, 22, 31-43.
- Benadusi, L. (2001). Equity and Education : a critical review of sociological research and thought. In W. Hutmacher, D. Cochrane, N. Bottani (Eds) *In Pursuit of Equity in Education*. Dordrecht : Kluwer Academic Publishers.
- Berten, A., da Silveira, P., Pourtois, H., (Eds), (1997). *Libéraux et Communautariens*. Paris : PUF.
- Birzea, C. (1982). *La pédagogie du succès*. Paris : PUF.
- BIT (2000). *Recommandations internationales en vigueur sur les statistiques du travail*.
- Bloom, B. S.(1976). *Human Characteristics and School Learning*. New-York : McGraw-Hill.
- Bloom, B. S.(1986). Le défi des deux sigmas. In M. Crahay & D. Lafontaine (Eds). *L'art et la science de l'enseignement*. Liège : Labor.
- Boudon, R. (1973, 1984). *L'inégalité des chances*. Pluriel, Livre de Poche.
- Boudon, R., Bulle, N., Cherkaoui, M. (Eds) (2001). *Ecole et société. Les paradoxes de la démocratie*. Paris : PUF, Collection « Sociologies ».
- Bourdieu, P., Passeron, J. C., Chamboredon, J. C. (1970). *La reproduction. Eléments pour une théorie du système d'enseignement*. Paris: Editions de Minuit, Collection "Le sens commun".
- Brighouse, H. (2000). *School choice and Social Justice*. Oxford: Oxford University Press.
- Bureau international du travail (2000). *Recommandations internationales en vigueur sur les statistiques du travail*. Genève: BIT.
- Cecchi, D., Ichino, A., Rustichini, A. (1999). More equal but less mobile ? Educational financing and intergenerational mobility in Italy and in the US. *Journal of Public Economics*, 74.
- Cecchi D. (1999). *Istruzione e mercato*. Bologna : Il Mulino.
- Cobalti A., Schizzerotto A. (1994). *La mobilità sociale in Italia*. Bologna : Il Mulino.
- Cohen-Solal, M., Loisy, C. (2001). Transferts sociaux et pauvreté en Europe. *Solidarité et santé*, n°4, 89-100.

- Coleman, J.S. (1966). Equal schools or equal students ? *The Public Interest*, 4, 70-75.
- Crahay, M. (2000). *L'école peut-elle être juste et efficace ?* Bruxelles : De Boeck Université.
- Demeuse, M. (2002). Mesurer le capital humain: qu'y a-t-il dans la « boîte noire » ? In D. De la Croix, F. Docquier, C. Mainguet, S. Perelman et E. Wasmer (Eds). *Capital Humain et dualisme sur le marché du travail*. Bruxelles: De Boeck.
- Demeuse, M., Crahay, M., Monseur, C. (2001). Efficiency and Equity. In W. Hutmacher, D. Cochrane, N. Bottani (Eds) *In Pursuit of Equity in Education*. Dordrecht: Kluwer Academic Publishers.
- Demeuse, M., Monseur, C. (1998). *Pour accroître l'efficacité des systèmes d'enseignement : recherche des facteurs d'efficacité et étude comparative des dispositifs de pilotage*. Liège : Université de Liège (Rapport final, non publié, juin 1998).
- Dubet, F. (1999). Sentiments et jugements de justice dans l'expérience scolaire. In D. Meuret (Ed.), *La justice du système éducatif*. Bruxelles: De Boeck, 177-193.
- Dubet, F. (2001). *Pourquoi changer l'école ?* Entretien avec Philippe Petit. Paris: Textuel.
- Duru-Bellat, M. (1998). *Les inégalités sociales dans le système éducatif français*. Direction de l'évaluation et de la Prospective-IREDU. Recherches et Politiques éducatives. Paris: Editions du CNRS.
- Duru-Bellat, M. (2002). *Les inégalités sociales à l'école*. Paris: Presses universitaires de France.
- Duru-Bellat, M., Kieffer, A. (1999). La démocratisation de l'enseignement revisitée. *Les Cahiers de l'IREDU*. Dijon.
- Duru-Bellat, M., Mingat, A. (1997). La constitution de classes de niveau dans les collèges : les effets pervers d'une pratique à visée égalisatrice. *Revue Française de Sociologie*, Vol. XXXVIII, n°4, 759-789.
- Duru-Bellat, M., Mons, N. et Suchaut, B. (2003). *Caractéristiques des systèmes éducatifs et compétences des jeunes de 15 ans, l'éclairage des comparaisons entre pays*. Rapport pour la DEP, MEN, France. Cahiers de l'IREDU, n° 64, Dijon.
- Erikson, R., Goldthorpe, J.H, Portocarero, L. (1979). "Intergenerational Class Mobility in three Western Societies". In *British Journal of Sociology*, 30, 4, 415-441.
- Eurostat (2001). *Statistiques sociales européennes : Résultats de l'enquête sur les forces de travail 2000*.
- Fleurbaey, M. (1996). *Théories économiques de la Justice*. Paris : Economica.
- Ganzeboom, H.B.G., De Graaf, P., Treiman, D.J. (1992). "A standard international Socio-economic Index of Occupational Status". *Social Science Research*, 21, 1-56.
- Gilleskie, D. B., Harrison, A. L. (1998). The effects of endogenous health inputs on the relationship between health and education. *Economics of Education review*, 17 (3), 279-297.



- Gorard, S., Taylor, C. (2002). What is segregation ? A comparison of measures in terms of strong and weak compositional invariance. *Sociology*, 36(4), 875-895.
- Goux, D., Maurin, E. (1997). Destinées sociales, le rôle de l'école et du milieu d'origine. *Economie et Statistiques*, 306.
- Grisay, A. (1984). Quels indicateurs pour quelle réduction des inégalités scolaires ? *Revue de la Direction générale de l'organisation des études*, 9, 3-14.
- Grisay, A. (1997). Évolution des acquis cognitifs et socioaffectifs des élèves au cours des années de collège. Ministère de l'Education Nationale. *Dossiers Éducation et formations*, 88.
- Gutman, A. (1999). *Democratic Education* (1<sup>re</sup> éd., 1987). Princeton: Princeton University Press.
- Houllé, D., Lémelin, C. (2001). *Rendements de l'investissement en capital humain et origine sociale*. Multigr.. Université du Québec.
- Husén, T. (1972). *Social background and educational career*. Paris: Oecd, Center educational research and innovation.
- Hutmacher, W. (2001). *Inégalités et jugements d'équité en éducation et en formation*, Multigr.
- Hutmacher, W., Cochrane, D., Bottani, N., (Eds), (2001). *In Pursuit of Equity in Education. Using international indicators to compare equity policies*. Dordrecht / Boston / London: Kluwer Academic Publishers.
- Iannelli, C. (2002). Parental Education and Young People's Educational and Labour Market Outcomes: A Comparison across Europe. In I. Kogan, W. Müller (Eds), *School-to-Work Transitions in Europe: Analyses of the EULFS 2000 Ad hoc Module*. MZES. Mannheim, 5-29.
- Institut National des Statistiques (2001). *Enquête socioéconomique générale 2001*. Bruxelles : Ministère des Affaires économiques.
- Kymlicka, W. (1999). *Les théories de la justice*. Paris: La Découverte. (traduction française de *Contemporary Political Philosophy, an introduction*. Oxford: Oxford University Press, 1992).
- Lévy, R., Joye, D., Guye, O., Kaufmann, V.(1997). *Tous égaux? De la stratification aux représentations*. Zürich : Seismo.
- Mac Mahon, W. (1997). Recent advance in measuring the social and individual benefit of education. *International Journal of Educational Research*, 27(6).
- Marantz-Cohen, R. (1998). Class consciousness and its consequences : the impact of an elite education on mature working class women. *American Educational Research Journal*, 35(3).

- Marshall, G., Swift, A., Routh, Burgoyne, C.(1999), What is and what ought to be ? Popular beliefs about distributive justice in thirteen countries, *European Sociological Review*, 15 (4), 349-367.
- Mingat, A., Suchaut, B. (2000). *Les systèmes éducatifs africains*. Bruxelles: De Boeck.
- Merle, P. (2001). Les droits des élèves, droits formels et quotidien scolaire des élèves dans l'institution. *Rev. Fr. Sociol.*, 42-1, 81-115.
- Merle, P. (2002). L'humiliation des élèves dans l'institution scolaire. *Revue française de Pédagogie*, 139.
- Merle, P. (2001). Les droits des élèves, droits formels et quotidien scolaire des élèves dans l'institution. *Revue française de Sociologie.*, 42-1, 81-115.
- Meuret, D., (Ed.), (1999). *La justice du système éducatif*. Bruxelles: De Boeck Université.
- Meuret, D. (1999). Rawls, l'éducation et l'égalité des chances. In D. Meuret, (Ed.). *La justice du système éducatif*. Bruxelles: De Boeck Université.
- Meuret, D. (2000). Un canevas d'indicateurs pour comparer l'équité des systèmes éducatifs, mimeo, Dijon : IREDU.
- Meuret, D. (2001a). School Equity according to the Theories of Justice. In W. Hutmacher, D. Cochrane, N. Bottani (Eds) *In Pursuit of Equity in Education*. Dordrecht: Kluwer Academic Publishers.
- Meuret, D. (2001b). A system of equity indicators for educational systems. In W. Hutmacher, D. Cochrane, N. Bottani (Eds) *In Pursuit of Equity in Education*. Dordrecht: Kluwer Academic Publishers.
- Miller, T.C. (1977). Conceptualizing Inequality. *Evaluation Studies Review Annual*, p.334-349.
- Mingat, A.,Eicher, J.C. (1982). Higher education and employment market in France. *Higher Education*, 11(2).
- Ministère de l'Education Nationale-DPD (2002). *L'état de l'Ecole*, 12. Paris.
- Monseur, C., Demeuse, M. (2001). Gérer l'hétérogénéité des élèves. Méthodes de regroupement des élèves dans l'enseignement obligatoire. *Les Cahiers du Service de Pédagogie expérimentale de l'Université de Liège*, 7-8, 25-52.
- Muller, W, Shavit, Y (1998). *From School to Work*. Oxford : Clarendon Press.
- Muller, W., Karle, W. (1993). Social selection in Educational systems in Europe, *European Sociological review*, 9.
- Nozick, R. (1974). *Anarchy, State and Utopia*. New York : Basic Books.
- O'Donoghue, C. (2002). *The redistributive impact of Education in the Europea Union*, Communication au séminaire du CERC sur les effets redistributifs de l'éducation. Paris.

- Ocdé (1999). *Nomenclature des systèmes d'éducation, guide d'utilisation de la CITE-97 dans les pays de l'Ocdé* (édition 1999). Paris : Ocdé.
- Ocdé (2000). *Literacy in the Information Age : Final report of the IALS study*. Paris: Ocdé.
- Oecd (2000). *Programme for International Student Assessment (PISA)*. Paris: Ocdé.
- Ocdé (2001). *Knowledge and skills for life. First results of PISA 2000*. Paris: Ocdé.
- Ocdé (2001). *Regards sur l'éducation. Les indicateurs de l'Ocdé*. Paris: Ocdé.
- Ocdé (2002). *Literacy at the Information Age*. Paris: Ocdé.
- Ocdé (2002). *Regards sur l'Education*. Paris: Ocdé.
- Ocdé (2003). *Reading for change : Performance and Engagement across countries*. Paris: Ocdé.
- Orfield, G. (2001). Why data collections matters : the role of race and poverty indicators in American education, In W. Hutmacher, D. Cochrane, N. Bottani (Eds) *In Pursuit of Equity in Education*. Dordrecht: Kluwer Academic Publishers.
- Parents – enseignants : la fracture, analyse d'un sondage français auprès de 400 parents. *Challenge*, Octobre 2000, 68-93.
- Rawls, J. (1971). *A theory of justice*. Oxford : University press.
- Rawls, J. (1987). *Théorie de la Justice*. Paris: Le Seuil.
- Rawls, J. (1995). *Libéralisme Politique*. Paris : PUF. (Trad.fcse de Political liberalism, 1993, Columbia University Press).
- Roemer, J. (1996), *Theories of distributive Justice*, Harvard University Press, Cambridge.
- Sen, A. (1976). Poverty : An Ordinal Approach to Measurement. In *Econometria*, vol. 44, n°2, 219-231.
- Sen, A. (1982). Quelle égalité ? In *Ethique et Economie*, 1993. Paris : PUF.
- Sen, A. (1992). *Inequality re-examined*. Oxford: Oxford university Press.
- Sen, A. (2000). *Repenser l'inégalité*. Paris : Le Seuil.
- Shavit, Y., Blossfeld, H.P. (1993). *Persistent Inequality*. Westview Press, Boulder, Co.
- Silberman, R., Fournier, I. (1999). Les enfants d'immigrés sur le marché du travail. *Formation et Emploi*, 65.
- Sirota, R. (1988). *L'école primaire au quotidien*. Paris: PUF.
- Slavin, R. E. (1987). Mastery Learning Reconsidered. *Review of Educational Research*, 57, 175–213.
- Slavin, R.E. (1990). Achievement effects of ability grouping in secondary schools : a best

- evidence synthesis. *Review of Educational Research*, 60(3), 471-499.
- Sugden, R. (1993). Welfare, resources and capabilities : a review of “Inequality reexamined” by Amartya Sen. *Journal of Economic Literature*, XXXI, 1947-1962.
- Torney-Purta, J., Lehmann, R., Oswald, H.. and Schulz, W. (2001). *Citizenship and Education in Twenty-eight Countries. Civic Knowledge and Engagement at Age Fourteen*. Amsterdam, IEA.
- Trannoy, A. (1999). L'égalisation des savoirs de base, l'éclairage des théories économiques de la responsabilité et des contrats. In Meuret, D. (Ed.), *La justice du système éducatif*. Bruxelles: De Boeck Université.
- Treiman D.J., Ganzeboom H. B. G. (1990). “Cross-national comparative status-attainment research”. *Research in Social Stratification*. Vol. 9.
- Unesco (1997). *Classification internationale type de l'éducation (CITE-97)*. Paris: Unesco.
- Van Parijs, P. (1991). *Qu'est-ce qu'une société juste ?* Paris: Le Seuil.
- Vandenberghe, V., Dupriez, V. et Zacchary, M.D. (2001). Is there an Effectiveness-Equity trade-off ? A cross country comparison using TIMSS test scores. In W. Hutmacher, D. Cochrane, N. Bottani (Eds) *In Pursuit of Equity in Education*. Dordrecht: Kluwer Academic Publishers.
- Walzer, M. (1997). *Sphères de justice*. Paris: Le Seuil.
- Wolfe, B. et Haveman, R. (2000). *Accounting for the social and non-market benefits of education*. University of Wisconsin-Madison.

## Part 5

## **Annexes**

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### A.1.2. Avantages sociaux de l'éducation

On trouvera ci-dessous le tableau d'indicateurs avec des valeurs plus précises, puis des renseignements méthodologiques.

Pays	Avantages sociaux d'une scolarité dans l'enseignement supérieur							
	Professionnels			Personnels		Sur les enfants de 15 ans		
	Prestige	Statut (2000)	Emploi (2000)	Maîtrise de la lecture	Formation continue (1995-2000)	Pratiques culturelles <sup>1</sup> (2000)	Communication avec les parents <sup>2</sup> (2000)	Score en compréhension de l'écrit <sup>3</sup> (2000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
B		145	74	119	19	0,43 (0,03)	0,14 (0,03)	2,6 (0,5)
DK		141	63	118	48	0,44 (0,04)	0,37 (0,03)	9,4 (0,7)
D	2,1	135	73	123	27	0,59 (0,04)	0,38 (0,03)	5,4 (0,9)
EL		149	21			0,22 (0,04)	0,23 (0,04)	3,2 (0,6)
E		152	32			0,53 (0,04)	0,42 (0,04)	3,6 (0,4)
F	1,6	142	65			0,45 (0,05)	0,28 (0,03)	2,7 (0,5)
IRL		136	m	130	26	0,20 (0,04)	0,22 (0,03)	2,2 (0,8)
I	1,9	147	35		17	0,52 (0,05)	0,26 (0,03)	2,6 (0,6)
L		148	m			0,57 (0,05)	0,24 (0,04)	2,5 (0,5)
NL	2,2	136	53	120	46	0,50 (0,06)	0,29 (0,04)	
A		141	74			0,63 (0,05)	0,30 (0,04)	4,3 (0,6)
P		152	21	127	15	0,51 (0,05)	0,41 (0,04)	1,1 (0,6)
FIN		149	62	120	47	0,43 (0,05)	0,22 (0,04)	3,7 (0,5)
S	1,9	132	76	117	51	0,30 (0,03)	0,19 (0,03)	1,1 (0,9)
UK	1,1	131	82	117	46	0,62 (0,05)	0,34 (0,04)	5,5 (0,7)
NO		133	32	125	39	0,31 (0,04)	0,24 (0,03)	2,0 (0,8)
CH	2,6	136	75	115	36	0,49 (0,06)	0,39 (0,04)	6,1 (0,7)

Les indicateurs retenus mettent en évidence des corrélations entre le fait d'avoir fait des études supérieures (sorties du système scolaire à un niveau CITE 5 ou 6) et le fait de posséder certaines caractéristiques sociales désirables. Il s'agit donc d'avantages liés à la possession d'une éducation supérieure, sans qu'on puisse être sûr qu'il s'agisse, au sens strict, d'un effet de cette éducation. Des études nationales ont établi dans plusieurs domaines (santé, consommation, scolarité ou délinquance des enfants, etc.) l'existence d'effets nets de l'éducation, en montrant qu'ils persistent si l'on maintient sous contrôle d'autres variables. On ne dispose pas encore d'études internationales de ce type.

<sup>1</sup> Ecart des moyennes de l'indice PISA d'activités culturelles selon que les deux parents ont fait des études supérieures (CITE 5-6) ou non (i.e. qu'un seul ou aucun en ont fait), mesuré en proportion de l'écart type de la distribution de l'indice pour les parents qui ne sont pas deux à avoir fait des études supérieures. Source : données PISA

<sup>2</sup> Ecart des moyennes d'un indice de communication « parents-enfants » selon que les deux parents ont fait des études supérieures (CITE 5-6) ou non (i.e. qu'un seul ou aucun en ont fait), mesuré en proportion de l'écart type de la distribution de l'indice pour les parents qui ne sont pas deux à avoir fait des études supérieures. Source : données PISA.

<sup>3</sup> Augmentation du score de compréhension de l'écrit pour une année supplémentaire d'éducation des parents. Source : données PISA.

L'intérêt de disposer seulement de corrélations est cependant, dans la perspective qui est ici la notre, limité. Supposons un pays où une éducation réussie est fortement liée au prestige de la profession, mais où, en réalité, c'est parce que l'origine sociale détermine fortement à la fois le prestige de la population occupée et la carrière scolaire. Il n'en restera pas moins que, dans ce pays, les conséquences sociales de éducation sont plus graves qu'ailleurs, et donc que la question de l'iniquité de la distribution de l'éducation y est plus grave aussi qu'ailleurs.

### (1) Prestige de la profession

Le prestige des professions occupées a été mesuré en utilisant soit des échelles nationales de prestige, soit (Suède et Suisse) l'échelle internationale de Treiman, soit des échelles de statut social (France, Etats-Unis). La comparaison n'est donc pas aussi rigoureuse que lorsqu'on utilise une même échelle pour tous les pays mais les auteurs de l'étude estiment mineurs les biais ainsi introduits (p 16).

L'indicateur présente l'écart entre le prestige moyen (codé sur une échelle de 0 à 3) des professions des personnes qui ont achevé une éducation universitaire « traditionnelle, orientée vers les disciplines académiques » et celui des personnes qui ont quitté l'école à la fin de la scolarité obligatoire.

*Source : Shavit Y. et Müller W., From school to work, Clarendon press, 1998.*

### (2) Statut socioprofessionnel

La formule de l'indicateur est la suivante :

*Index socioéconomique de statut professionnel des parents qui sont achevé un cycle d'enseignement supérieur (CITE 5,6) \* 100 / Index socioéconomique de statut professionnel (indice ISEI) des autres parents.*

L'indicateur est une moyenne simple des valeurs obtenues pour les pères et pour les mères. Il porte seulement sur les parents d'un échantillon représentatif des élèves de 15 ans du pays, soit environ sur la tranche d'âge 35-45 ans. Son intérêt par rapport à l'indicateur précédent est, d'une part, qu'il utilise une même échelle de mesure du statut social pour tous les pays et, d'autre part, qu'il apporte un éclairage complémentaire, puisqu'il ne compare pas, comme le précédent, les catégories d'éducation extrêmes mais les individus qui ont fait des études supérieures à tous les autres.

*Source : OECD, Knowledge and skills for life, first results of PISA 2000.*

### (3) Emploi – évitement du chômage

La formule de l'indicateur est la suivante :

*(Taux de chômage des individus de 25 à 49 ans qui ont arrêté leur scolarité avant le second degré de l'enseignement secondaire - Taux de chômage des individus de 25 à 49 ans qui ont achevé avec succès des études supérieures) \* 100 / Taux de chômage des individus de 25 à 49 ans qui ont arrêté leur scolarité avant le second degré de l'enseignement secondaire.*

Il porte sur les femmes et les hommes.

On a préféré prendre la tranche d'âge 25-49 ans plutôt que la tranche 15-24 ans pour que l'ensemble des individus sortis de l'enseignement supérieur soient pris en compte. Ce faisant, on accepte que l'indicateur porte également sur les avantages retirés de leur éducation par des individus qui ont été scolarisés il y a plusieurs années.

*Source : Eurostat, Statistiques sociales européennes, Enquête sur les forces de travail - Résultats 2000, Tableaux détaillés, Eurostat thème 3, pp. 182 et 183.*



#### (4) Maîtrise de la lecture

Nous n'avons pas trouvé de comparaisons internationales des effets de l'éducation sur l'état de santé, qui pourtant est un des effets non-marchands de l'éducation parmi les plus étudiés par les études nationales. En fait, le seul effet « personnel » pour lequel nous avons trouvé des comparaisons internationales est la capacité de lecture des adultes.

La population est constituée des adultes de 20 à 25 ans de façon à refléter l'influence du fonctionnement récent du système éducatif.

Le score est calculé sur une échelle de moyenne internationale 500 et d'écart-type 100, comme une moyenne des trois échelles « prose », « document » et « quantitatif ».

La formule de l'indicateur est la suivante :

*Score moyen des 20-25 ans qui ont achevé une éducation supérieure \* 100 / Score moyen des 20-25 ans qui n'ont pas atteint le second cycle de l'enseignement secondaire.*

Les populations étudiées peuvent représenter, d'un pays à l'autre, des proportions diverses de la population totale des 20-25 ans, de sorte qu'il n'y aurait pas de sens à interpréter cet indicateur comme mesurant par lui-même une inégalité pertinente pour apprécier l'iniquité des systèmes éducatifs.

Il s'agit ici de mesurer les conséquences des inégalités de carrières éducatives.

Ces scores procèdent de l'enquête OCDE - Statistiques Canada sur la littératie des adultes, dite IALS (International Adult Literacy Survey).

Les adultes allemands, irlandais, néerlandais, suédois et suisses ont été interrogés en 1994, lors de la première vague de l'étude. Les adultes du Danemark, de Finlande, d'Italie, de Norvège et du Royaume Uni ont été interrogés en 1998, lors de la troisième vague de l'étude. Les pays en blanc dans le tableau n'ont pas participé à l'enquête, sauf la France, qui a participé à la première vague mais a désavoué les résultats.

*Source : OCDE, Literacy at the information age, 2002.*

#### (5) Formation Continue

L'indicateur présente le taux de participation des 25-65 ans à des activités de formation continue liées ou non à l'emploi.

La formule de l'indicateur est la suivante :

Valeur pour les individus qui ont fait des études supérieures / Valeur pour les individus qui n'ont pas atteint le second cycle de l'enseignement secondaire.

Les données sont issues des évaluations de la compréhension de l'écrit chez les adultes (IALS) (Pays Bas et Suède : « IALS 94 »; Belgique, Irlande et Royaume-Uni : « IALS 95 »; Danemark, Norvège et Portugal : « IALS 98 »), mais aussi d'autres enquêtes (Allemagne, 2000 ; Finlande, 2000 ; Suisse, 1998).

Source : OCDE, Regards sur l'éducation, 2002.

#### (6) Pratiques culturelles des enfants

L'indicateur présente l'écart des moyennes de l'indice PISA d'activités culturelles selon que les deux parents ont fait des études supérieures (CITE 5-6) ou non (i.e. qu'un seul ou aucun en ont fait), mesuré en proportion de l'écart type de la distribution de l'indice pour les parents qui ne sont pas deux à avoir fait des études supérieures .

Cet indice est calculé à partir des réponses des élèves de 15 ans sur la fréquence de ces activités au cours de l'année scolaire précédente : visiter un musée ou une galerie d'art, assister à un concert ou à un ballet, aller voir une pièce de théâtre.

Source : OECD, Knowledge and skills for life, first results of PISA 2000.

#### (7) Communication entre parents et enfants

L'indicateur présente l'écart des moyennes d'un indice de communication parents-enfants selon que les deux parents ont fait des études supérieures (CITE 5-6) ou non (i.e. qu'un seul ou aucun en ont fait), mesuré en proportion de l'écart type de la distribution de l'indice pour les parents qui ne sont pas deux à avoir fait des études supérieures.

Cet indice est la moyenne de deux indices de PISA : l'indice de communication culturelle (fréquence des discussions parents-enfants sur des sujets sociaux ou politiques, sur des livres, des films ou des programmes de télévision ; fréquence avec laquelle ils écoutent ensemble de la musique classique) et l'indice de communication sociale (discussions sur les apprentissages scolaires, sur n'importe quel sujet, fréquence des repas pris en commun autour d'une table).

Source : OECD, Knowledge and skills for life, first results of PISA 2000.

#### (8) Score en compréhension de l'écrit

Augmentation du score de compréhension de l'écrit pour une année supplémentaire d'éducation des parents. L'indicateur est le coefficient de régression du score de la « combined reading literacy scale » sur le nombre d'années d'études recalculé à partir des niveaux d'études indiqués par les élèves comme étant ceux de leurs parents.

Source : OECD, Knowledge and skills for life, first results of PISA 2000.

### B.1.1. Inégalités de scolarisation

Tableau 1 : Pourcentage d'élèves scolarisés par âge et espérance de scolarisation pour les 10% étant scolarisés le plus longtemps

Pays		B	DK	FIN	F	D	EL	IRL	NL	NO	P	E	S	CH	UK
Taux de scolarisation par âge	3 ans	98,1	70,6	32,7	100	61,8	0,0	3,3	0,1	67,3	52,3	71,6	61,5	5,9	50,3
	4 ans	98,2	89,1	37,8	100	83,7	53,7	52,5	98,3	74,5	62,3	99,0	99,0	29,1	94,6
	5 ans	97,8	93,9	42,4	100	85,9	83,7	99,9	99,3	77,9	69,7	100	70,5	80,7	99,4
	6 ans	97,8	95,8	69,2	99,6	91,7	100	100	99,5	100	100	100	96,6	99,5	99,0
	7 ans	96,5	98,5	98,8	99,6	99,5	100	100	99,2	98,7	100	100	95,1	99,7	99,2
	8 ans	96,4	99,6	99,6	99,5	99,2	98,5	98,5	99,6	98,9	100	100	100	99,7	99,3
	9 ans	96,0	99,6	99,5	99,4	97,3	100	100	99,5	99,4	100	100	100	99,7	98,9
	10 ans	96,0	100	99,7	99,2	98,3	98,0	100	99,3	99,0	100	100	100	99,7	99,0
	11 ans	96,0	99,6	99,9	97,9	98,2	98,9	99,9	98,5	98,8	100	100	100	99,5	98,8
	12 ans	95,6	99,8	99,8	97,9	99,2	97,1	98,4	99,5	99,8	100	100	100	98,9	98,1
	13 ans	95,4	99,9	99,9	98,3	99,1	98,3	100	99,6	99,3	100	100	100	98,9	98,5
	14 ans	95,6	98,5	99,8	97,9	99,0	96,9	98,9	99,2	98,9	100	100	100	98,1	98,4
	15 ans	95,6	97,9	99,9	96,4	97,6	91,9	99,9	99,4	100	93,6	94,6	96,6	97,7	99,9
	16 ans	94,3	93,2	89,3	95,3	96,5	89,9	92,4	96,6	94,4	85,4	88,8	97,9	90,4	80,9
	17 ans	93,3	81,5	93,4	90,4	92,2	67,0	77,7	90,1	93,5	84,3	79,3	97,4	85,6	68,4
	18 ans	80,2	74,6	84,5	81,5	85,6	71,4	40,2	78,6	88,3	65,9	66,0	95,9	80,2	49,4
	19 ans	66,7	57,2	43,0	69,8	66,6	69,4	13,8	65,9	55,8	54,4	58,7	41,4	62,1	46,5
	20 ans	55,6	40,2	44,6	56,6	47,9	58,9	6,6	57,8	47,5	39,9	54,8	41,9	39,2	42,9
	21 ans	43,0	39,3	49,9	44,1	41,6	40,7	4,7	49,4	44,5	32,9	46,4	43,2	28,9	32,8
	22 ans	31,6	38,5	48,5	33,7	41,4	24,1	3,4	37,8	40,9	27,4	39,8	41,2	24,9	23,0
	23 ans	21,3	37,2	43,7	23,9	24,0	20,0	2,3	29,0	36,5	23,1	30,2	36,9	22,2	18,1
	24 ans	14,8	33,3	37,5	15,1	19,3	13,0	1,8	21,1	30,8	19,2	22,8	32,4	19,2	15,6
	25 ans	10,7	28,5	31,7	10,4	17,4	11,4	1,2	15,6	24,1	13,9	14,7	28,6	15,5	13,9
	26 ans	8,8	23,1	25,6	6,83	14,9	8,1	1,2	11,5	18,3	10,9	9,9	24,9	12,1	12,3
	27 ans	7,4	17,6	20,7	4,71	12,6	4,1	1,1	8,8	14,1	8,7	7,7	21,8	9,8	11,6
	28 ans	6,5	13,8	16,6	3,5	9,9	3,7	1,1	6,1	11,3	7,4	6,1	19,6	7,7	10,8
	29 ans	5,8	11,2	13,9	2,8	8,1	3,0	1,1	5,5	9,6	6,6	4,9	17,8	5,9	10,3
Espérance de scolarisation pour les 10% qui font les scolarités les plus longues		21,9	23	23	22,1	22,8	20,1	15,8	22	22,9	22,3	21,9	23	21,9	23

Écarts d'espérance de scolarisation entre les 10 % d'élèves pour lesquels elle est la plus longue et les 10 % pour lesquels elle est la plus courte.

Afin d'obtenir les taux nets de scolarisation, le nombre d'élèves/étudiants d'un groupe d'âge donné scolarisés dans le système tous niveaux confondus est divisé par l'effectif de la population du même groupe d'âge. La somme de ces taux nets est l'espérance de scolarisation. A partir des taux de scolarisation aux différents âges, une moyenne pondérée est calculée pour les 10 % qui font les scolarités les plus longues et pour les 10 % qui font les scolarités les plus courtes. On donne à titre indicatif les espérances de scolarisation par pays des 10 % d'élèves qui font les scolarités les plus longues (annexe méthodologique, tab. 1), celle des 10 % des élèves qui font les scolarités les plus courtes est donnée à l'indicateur.

#### Remarque :

Les données pour l'Italie ne sont pas disponibles.

Les données sur les scolarités pré-primaires sont données à titre indicatif mais n'ont pas été prises en compte dans les calculs des moyennes pondérées.

Le taux de scolarisation est évidemment élevé jusqu'à la fin de la scolarité obligatoire.

Après 16 ans, ce taux recule dans tous les pays sauf en Finlande, Portugal et Suède, mais il chute réellement à la fin du second cycle du secondaire.

Ce tableau ne donne pas un indicateur comme défini dans notre canevas mais permet de disposer d'une information nous renseignant sur le fonctionnement des différents systèmes éducatifs. Il donne les espérances de scolarisation à trois niveaux, tels qu'ils sont définis par l'OCDE. Afin de mesurer le temps de scolarisation, on peut estimer le nombre d'années pendant lesquelles un enfant de 5 ans peut espérer être scolarisé à temps plein et à temps partiel pendant son cycle de vie, en fonction des taux de scolarisation du moment. Cette espérance de scolarisation est calculée à partir de la somme des taux de scolarisation pour chaque âge à partir de 5 ans.

**Tableau 2 : Espérance de scolarisation aux différents niveaux du système éducatif**

	Espérance moyenne de scolarisation	Niveau primaire et premier cycle secondaire	Second cycle secondaire	Tertiaire
<b>B</b>	18,5	9,0	5,3	2,7
<b>DK</b>	17,7	9,8	3,4	2,5
<b>D</b>	17,2	10,1	2,9	2,0
<b>EL</b>	15,6	9,1	2,8	2,5
<b>E</b>	17,3	10,5	2,6	2,8
<b>F</b>	16,5	9,5	3,3	2,6
<b>IRL</b>	16,0	10,7	2,3	2,4
<b>I</b>	15,8	8,2	4,2	2,3
<b>NL</b>	17,1	10,4	3,3	2,3
<b>A</b>	16,0	8,2	3,8	2,2
<b>P</b>	16,8	10,9	2,9	2,3
<b>FIN</b>	18,3	9,0	4,2	3,9
<b>S</b>	20,3	9,8	5,7	2,9
<b>UK</b>	18,9	8,9	7,3	2,6
<b>NO</b>	17,9	9,9	4,1	3,1
<b>CH</b>	16,3	9,6	3,3	1,7
<b>USA</b>	17,2	9,7	2,7	3,6

Source : *Regards sur l'éducation, OCDE, 2001.*

Dans 25 pays de l'OCDE sur 27, la scolarisation dure en moyenne entre 15 et 20 ans. Les écarts constatés dans cette mesure tiennent pour l'essentiel aux différences de taux de scolarisation dans le second cycle du secondaire. Bien qu'en chiffres relatifs les écarts soient également importants au niveau du tertiaire, ils s'appliquent à une plus petite proportion de la cohorte et ont moins d'effets sur l'espérance de scolarisation.

Les taux de scolarisation varient en fonction des taux d'accès à un niveau donné et de la durée théorique des études à ce niveau. Si le nombre estimé d'années passées dans l'enseignement est élevé dans un pays, cela ne signifie pas nécessairement que tous les jeunes y sont scolarisés pendant une longue durée. La Suède par exemple, où l'espérance de scolarisation des élèves âgés de 5 ans est supérieure à 18 ans affiche des taux de scolarisation quasi-complets (supérieur à 90%) pendant 13 années d'études. En revanche en Finlande, où l'espérance de scolarisation est tout aussi élevée, les taux de scolarisation ne dépassent les 90% que pour 11 années : une longue espérance de scolarisation n'implique pas forcément que tous les jeunes ont accès à des niveaux relativement élevés d'enseignement, mais la plupart sont scolarisés pendant au moins 11 ans (OCDE, 2001).

## B.1.2. Inégalités des dépenses d'éducation

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### Dépenses par élève du tertiaire vs. primaire

Il s'agit des dépenses publiques et privées directes au titre de la scolarité dans des établissements d'enseignement, non compris les subventions publiques destinées à financer les frais de subsistance des élèves. Les dépenses pour un niveau d'enseignement donné (ici, le tertiaire et le primaire (non compris le préélémentaire)) sont obtenues par la division des dépenses afférentes à ce niveau par le nombre d'élèves en équivalent temps plein.

### Taux d'encadrement et taille des classes

Le taux d'encadrement est un meilleur indicateur de la dépense que la taille des classes dans la mesure où les élèves ne suivent pas toujours l'enseignement avec la totalité de leur classe. L'idéal serait de disposer de la taille moyenne des groupes dans lesquels les élèves suivent l'enseignement, pondérée par la durée de fréquentation de chacun des groupes. Cette donnée n'est pas disponible dans PISA. Lorsque le taux d'encadrement était aussi inconnu – par exemple pour les sous-populations dont nous mesurons l'écart des modalités de leur scolarisation avec celles de la sous-population complémentaire – nous avons utilisé la moyenne des tailles de classes déclarée par les élèves pour les trois matières évaluées par PISA : compréhension de l'écrit, mathématiques et sciences.

Le taux d'encadrement moyen utilisé ici est donné par la variable *STRATIO* de PISA. C'est le nombre d'enseignants en équivalent temps plein divisé par le nombre d'élèves de l'établissement, deux données indiquées par le Chef d'établissement. Cette variable porte donc sur l'ensemble de l'établissement alors que les réponses sur la taille des classes, données par les élèves portent seulement sur l'échantillon d'élèves de l'établissement retenu par PISA. Il est possible de considérer ce taux comme valable pour l'ensemble des établissements (publics et privés) qui scolarisent les élèves de 15 ans dans le pays, puisque l'échantillon de PISA est un échantillon à deux degrés, le premier étant celui des établissements et composé au minimum de 150 d'entre eux. Cependant, ce taux, et la dispersion mesurée ici, ne valent que pour ces établissements là.

On trouvera ci-dessous un tableau sur le taux d'encadrement dans différents pays, à différents niveaux du système, le principal déterminant des différences des dépenses consenties pour chaque niveau. Ce taux est issu des données 1999 de l'Ocdé (2001). Le nombre d'élèves par enseignant est égal au résultat de la division du nombre d'élèves équivalent temps plein par le nombre d'enseignants équivalent temps plein à un niveau d'enseignement donné et dans le même type d'établissement scolaire. Les enseignants équivalent temps plein sont ceux dont au moins 90% du temps est consacré à l'enseignement.

**Tableau 1 : Taux d'encadrement dans différents pays, à différents niveaux du système**

	Niveau primaire et premier cycle secondaire	Second cycle secondaire	Tertiaire
<b>B</b>	nd	nd	nd
<b>DK</b>	10,6	12,4	nd
<b>D</b>	21	15,2	12,3
<b>EL</b>	13,5	10,6	26
<b>E</b>	15,4	12,9	16,4
<b>F</b>	19,6	12,8	16,9
<b>IRL</b>	21,6	14,6	17,3
<b>I</b>	11,3	10,3	24,8
<b>NL</b>	nd	nd	nd
<b>A</b>	14,5	9,8	15
<b>P</b>	nd	nd	nd
<b>FIN</b>	17,4	13,5	nd
<b>S</b>	13,3	14,5	9,5
<b>UK</b>	nd	nd	nd
<b>NO</b>	12,6	nd	13,4
<b>CH</b>	16,1	12,3	nd
<b>USA</b>	nd	nd	nd

Un autre indicateur relatif au taux d'encadrement a été construit : le taux d'encadrement pour les élèves les plus défavorisés. Il permet de comparer les taux d'encadrement des élèves les plus défavorisés d'une part avec le taux d'encadrement moyen dans le système éducatif national et entre pays d'autre part. Les données sont issues de PISA (2000). Les élèves les plus défavorisés sont ici ceux dont l'indice de richesse est inférieur à 60% du revenu national médian (variable WEALTH de PISA). Le taux d'encadrement moyen est donné par la variable STRATIO de PISA. Pour chaque pays sont donnés la moyenne (et l'écart type) de ce taux d'encadrement moyen et la moyenne (et l'écart type) de cette variable pour les élèves les plus défavorisés.

**Tableau 2 : Taux moyen d'encadrement au niveau national et taux d'encadrement pour les plus défavorisés**

	Taux d'encadrement moyen Moyenne (et écart-type)	Taux d'encadrement pour les élèves les plus défavorisés Moyenne (et écart-type)
<b>A</b>	13,9 (8,14)	13, 9 (8, 2)
<b>B</b>	11,3 (5,5)	11,0 (5,4)
<b>DK</b>	12,5 (4,6)	12,4 (4,6)
<b>FIN</b>	11,2 (4,5)	11,2 (4,4)
<b>F</b>	12,4 (3, 7)	12,1 (3, 7)
<b>D</b>	17,9 (4,6)	17,8 (4,5)
<b>EL</b>	11,9 (5,1)	11,3 (4,9)
<b>IRL</b>	12,5 (5,9)	12,5 (6,1)
<b>I</b>	10,5 (3,5)	10,6 (3,5)
<b>NL</b>		
<b>NO</b>	9,5 (5,1)	9,6 (5,2)
<b>P</b>	9,3 (3,9)	9,3 (3,8)
<b>E</b>	13,4 (4,8)	12,9 (4,6)
<b>S</b>	12,9 (2,9)	12,7 (3,1)
<b>CH</b>	12, 0 (2,9)	12,1 (2,9)
<b>UK</b>	15,4 (2,5)	15,4 (2,5)
<b>USA</b>	14,9 (3,9)	14,9 (3,9)

Outre la variété constatée dans les taux d'encadrement moyen et dans les taux d'encadrement des élèves les plus défavorisés, est à noter pour certains pays (Belgique, Danemark, France, Allemagne, Grèce, Espagne, Suède) un taux d'encadrement légèrement supérieur pour les élèves les plus défavorisés. Toutefois, il faut remarquer que les pays présentant les taux d'encadrement les plus élevés sont également les pays dans lesquels les taux d'encadrement pour les élèves les plus défavorisés sont les plus élevés.

Notre approche de la justice des dépenses d'éducation est de mettre en regard les inégalités de ressources consacrées à chaque individu et les inégalités de performances ou de devenir scolaire, mesurées en troisième partie. Une autre approche consiste à se demander si les dépenses d'éducation jouent un rôle redistributif, c'est-à-dire si les inégalités de revenus entre ménages sont réduites si on ajoute les dépenses publiques consenties pour leur éducation aux revenus disponibles.

Elle a été suivie par O'Donoghue (2002)<sup>4</sup>, dans une analyse des données du Panel Européen des Ménages. Il calcule un indice de redistribution (Reynolds-Smolenski) qui montre un effet redistributif des dépenses d'éducation plus fort en Irlande (4,46), en Italie (3,80), en France (3,35) au Royaume Uni (3,27), en Belgique (3,25) en Espagne (3,08) qu'en Grèce (2,15) et surtout qu'aux Pays Bas (0,32). Compliquant son approche pour tenir compte non seulement des dépenses, mais aussi des bénéfices retirés par les individus de leur éducation, il calcule par décile de revenu, les trois taux de rendements (privé, social et fiscal) d'une année supplémentaire d'éducation, ceci pour quatre pays (Allemagne, Irlande, Italie et Royaume

<sup>4</sup> C. O'Donoghue, The redistributive impact of Education in the European Union, Communication au séminaire du CERC sur les effets redistributifs de l'éducation, Paris, 2002.

Uni). Dans les quatre pays, le rendement de l'éducation est plus fort pour le dernier décile (les plus riches) que pour le premier (les plus pauvres), ceci pour les trois sortes de rendement. Les inégalités de rendement privé sont cependant beaucoup plus fortes au Royaume Uni (le rapport des taux pour les deux déciles extrêmes est de 5,5) et en Allemagne (4,8) qu'en Irlande (2,5) et qu'en Italie (2,3).

#### Taille des classes fréquentées par les élèves d'origine sociale défavorisée

Moyenne des trois tailles des classes déclarées par les élèves dont la profession déclarée par celui de leurs deux parents qui exerce la plus élevée appartient aux 25% des professions dont l'indice ISEI est le plus faible \* 100/ Moyenne des trois tailles des classes déclarées par les élèves dont la profession déclarée par celui de leurs deux parents qui exerce la plus élevée appartient aux 75% des professions dont l'indice ISEI est le plus fort. Source : calculs à partir des données PISA. Les valeurs entre parenthèse sont les erreurs types de l'indicateur.



### C.1.2. Faiblesse et excellence scolaire en fin de scolarité obligatoire

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L'indice de Sen a initialement été construit comme un indice mesurant la pauvreté. Son principal avantage est de prendre en compte simultanément trois dimensions : le taux de pauvreté, l'intensité de la pauvreté et l'inégalité de distributions de revenus parmi les pauvres (Cohen-Solal, Loisy, 2001).

Cet indicateur propose ainsi une information plus riche que ne la fournit la seule prise en compte de la proportion d'individus sous le seuil. L'indice de Sen supprime en fait deux insuffisances du taux de pauvreté classique : celui-ci ne change pas si les personnes sous le seuil deviennent plus pauvres (d'où l'ajout d'une variable d'intensité de la pauvreté dans l'indice de Sen), et ne change pas non plus si de l'argent se déplace des moins riches des pauvres vers les plus riches des pauvres (d'où l'ajout de l'indice de Gini dans l'indicateur de Sen). L'indice de pauvreté transposé au système scolaire donne un indice de faiblesse et d'excellence scolaires.

**L'indice de faiblesse scolaire** permet de se concentrer sur les élèves les plus faibles en prenant en compte le pourcentage que représente ces derniers, la distance qui les sépare en moyenne du seuil de résultats considéré comme minima, et la dispersion des résultats de ces élèves faibles. Cet indice, très sensible, augmente à la fois avec le nombre d'élèves faibles, l'intensité de cette faiblesse et la dispersion des scores de ces élèves. En effet, d'après la formule de Sen :  $S = T(I + (1 - I)G)$  où S, l'indice de Sen, est ici un indice de faiblesse scolaire, avec :

**T** : le taux d'élèves faibles dans le pays, c'est-à-dire, le pourcentage d'élèves en dessous du seuil de connaissances ; ce seuil étant fixé par la moyenne des scores obtenus par les 15% d'élèves les plus faibles au niveau européen.,

**I** : l'intensité de la faiblesse scolaire des élèves faibles : défini comme le ratio entre, d'une part, l'écart entre le seuil fixé précédemment et la moyenne des scores des élèves dont le score est inférieur à ce seuil dans le pays et d'autre part la valeur de ce seuil.

**G** : la dispersion des scores des plus faibles : cette composante (indice de Gini) vaut 0 si tous les élèves obtiennent le même score, l'indice de SEN mesurant la faiblesse scolaire sera alors égal à TI, seuls le taux d'élèves faibles et l'intensité de cette faiblesse constituant l'indice de faiblesse scolaire ; cette composante se rapproche de 1 si les scores des élèves faibles sont très dispersés.

L'indice d'excellence scolaire peut être construit de façon symétrique et permet de se concentrer sur les élèves les plus forts en prenant en compte le pourcentage que représente ces derniers, la distance qui les sépare en moyenne du seuil de résultats considéré comme maxima (atteint par 85% des élèves au niveau européen), et la dispersion des résultats de ces élèves forts. Cet indice, très sensible, augmente à la fois avec le nombre d'élèves forts, l'intensité de cette excellence et la dispersion des scores de ces élèves.

**Tableau 1 : Indice de faiblesse scolaire**

Pays	maths				Lecture				sciences			
	T	I	G	S	T	I	G	S	T	I	G	S
<b>Belgique</b>	12,43	0,17	0,09	<b>1,2</b>	14,16	0,17	0,09	<b>1,3</b>	15,43	0,19	0,11	<b>1,5</b>
<b>Danemark</b>	9,22	0,15	0,07	<b>0,8</b>	15,3	0,16	0,09	<b>1,3</b>	17,67	0,15	0,08	<b>1,5</b>
<b>Allemagne</b>	14,84	0,16	0,07	<b>1,4</b>	16,58	0,17	0,09	<b>1,6</b>	15,17	0,14	0,08	<b>1,1</b>
<b>Grèce</b>	28,89	0,19	0,09	<b>3,4</b>	21,74	0,16	0,09	<b>2,0</b>	22,07	0,17	0,09	<b>1,9</b>
<b>Espagne</b>	17,06	0,16	0,08	<b>1,7</b>	14,48	0,13	0,07	<b>1,0</b>	14,42	0,16	0,09	<b>1,3</b>
<b>France</b>	10,81	0,15	0,08	<b>0,9</b>	14,39	0,14	0,07	<b>1,1</b>	15,27	0,15	0,09	<b>1,2</b>
<b>Irlande</b>	10,68	0,15	0,07	<b>1,0</b>	9,92	0,13	0,06	<b>0,7</b>	9,70	0,11	0,06	<b>0,6</b>
<b>Italie</b>	23,18	0,17	0,08	<b>2,4</b>	16,11	0,14	0,08	<b>1,2</b>	17,53	0,16	0,09	<b>1,4</b>
<b>Luxembourg</b>	26,34	0,18	0,09	<b>3,0</b>	28,83	0,19	0,10	<b>3,2</b>	23,87	0,18	0,09	<b>2,4</b>
<b>Pays Bas</b>	4,62	0,14	0,06	<b>0,4</b>	7,81	0,12	0,06	<b>0,5</b>	6,66	0,13	0,05	<b>0,5</b>
<b>Autriche</b>	12,5	0,15	0,07	<b>1,1</b>	15,00	0,15	0,07	<b>1,3</b>	11,52	0,13	0,07	<b>0,7</b>
<b>Portugal</b>	22,83	0,17	0,08	<b>2,3</b>	20,45	0,15	0,08	<b>1,8</b>	19,46	0,13	0,06	<b>1,4</b>
<b>Finlande</b>	5,48	0,14	0,07	<b>0,4</b>	6,21	0,12	0,06	<b>0,4</b>	5,61	0,13	0,06	<b>0,5</b>
<b>Suède</b>	11,96	0,15	0,08	<b>1,1</b>	11,57	0,14	0,07	<b>0,8</b>	10,74	0,14	0,07	<b>0,8</b>
<b>Angleterre</b>	8,67	0,15	0,07	<b>0,8</b>	11,27	0,15	0,08	<b>0,9</b>	9,18	0,13	0,07	<b>0,6</b>
<b>Moyenne UE</b>	15,45	0,17	0,09	<b>1,4</b>	15,07	0,15	0,08	<b>1,2</b>	15,09	0,15	0,08	<b>1,1</b>
<b>Norvège</b>	13,83	0,16	0,08	<b>1,2</b>	15,41	0,18	0,10	<b>1,5</b>	12,22	0,17	0,09	<b>1,1</b>
<b>Suisse</b>	9,67	0,15	0,08	<b>0,8</b>	17,30	0,15	0,08	<b>1,4</b>	14,73	0,13	0,07	<b>0,9</b>

*T : pourcentage d'élèves sous le seuil fixé à 402,96 pour les maths ; 402,82 pour la lecture ; 393,47 pour les sciences.*

*I : écart entre le seuil et le score moyen des élèves sous le seuil rapporté à la valeur du seuil*

*G : indice de Gini mesurant la dispersion des résultats parmi les élèves sous le seuil*

*S : indice de Sen :  $S = T(I + (1 - I)G)$*

**Tableau 2 : Indice d'excellence scolaire**

Pays	Maths				Lecture				Sciences			
	T	I	G	S	T	I	G	S	T	I	G	S
<b>Belgique</b>	22,98	0,08	0,03	<b>1,2</b>	19,17	0,08	0,03	<b>0,9</b>	16,24	0,07	0,03	<b>0,7</b>
<b>Danemark</b>	15,29	0,06	0,02	<b>0,6</b>	12,83	0,08	0,03	<b>0,6</b>	11,35	0,07	0,03	<b>0,5</b>
<b>Allemagne</b>	15,54	0,07	0,02	<b>0,8</b>	15,00	0,08	0,03	<b>0,8</b>	14,43	0,07	0,02	<b>0,8</b>
<b>Grèce</b>	6,73	0,06	0,02	<b>0,3</b>	8,12	0,07	0,03	<b>0,3</b>	7,18	0,05	0,01	<b>0,3</b>
<b>Espagne</b>	7,98	0,06	0,02	<b>0,3</b>	8,80	0,06	0,03	<b>0,3</b>	11,56	0,06	0,02	<b>0,5</b>
<b>France</b>	16,92	0,07	0,03	<b>0,7</b>	12,94	0,07	0,03	<b>0,6</b>	14,84	0,07	0,03	<b>0,7</b>
<b>Irlande</b>	10,34	0,06	0,02	<b>0,5</b>	20,41	0,08	0,03	<b>1,1</b>	15,76	0,08	0,03	<b>0,8</b>
<b>Italie</b>	4,59	0,05	0,02	<b>0,2</b>	10,37	0,06	0,03	<b>0,4</b>	9,73	0,06	0,02	<b>0,4</b>
<b>Luxembourg</b>	4,62	0,06	0,02	<b>0,2</b>	5,68	0,06	0,02	<b>0,2</b>	5,25	0,06	0,02	<b>0,2</b>
<b>Pays Bas</b>	35,98	0,08	0,03	<b>2,0</b>	24,44	0,08	0,03	<b>1,3</b>	25,24	0,08	0,03	<b>1,4</b>
<b>Autriche</b>	15,83	0,07	0,03	<b>0,8</b>	12,54	0,07	0,03	<b>0,6</b>	14,40	0,08	0,02	<b>0,8</b>
<b>Portugal</b>	5,31	0,05	0,02	<b>0,2</b>	8,31	0,07	0,03	<b>0,4</b>	5,88	0,06	0,02	<b>0,3</b>
<b>Finlande</b>	19,49	0,07	0,02	<b>0,9</b>	26,44	0,08	0,03	<b>1,3</b>	21,54	0,08	0,03	<b>1,1</b>
<b>Suède</b>	14,72	0,08	0,03	<b>0,7</b>	17,32	0,07	0,03	<b>0,8</b>	14,88	0,07	0,03	<b>0,7</b>
<b>Angleterre</b>	19,62	0,08	0,03	<b>1,0</b>	20,20	0,09	0,04	<b>1,2</b>	21,01	0,09	0,03	<b>1,2</b>
<b>Moyenne UE</b>	14,36	0,07	0,03	<b>0,6</b>	14,99	0,08	0,03	<b>0,7</b>	14,24	0,08	0,03	<b>0,6</b>
<b>Norvège</b>	11,89	0,07	0,03	<b>0,5</b>	16,54	0,07	0,03	<b>0,7</b>	12,53	0,07	0,03	<b>0,6</b>
<b>Suisse</b>	23,15	0,08	0,03	<b>1,1</b>	13,31	0,07	0,03	<b>0,6</b>	13,17	0,08	0,03	<b>0,6</b>

*T : pourcentage d'élèves au dessus du seuil fixé à 602,62 pour les maths ; 600,19 pour la lecture ; 602,62 pour les sciences.*

*I : écart entre le seuil et le score moyen des élèves au dessus du seuil rapporté à la valeur du seuil*

*G : indice de Gini mesurant la dispersion des résultats parmi les élèves au dessus du seuil*

*S : indice de Sen :  $S=T(I+(1-I)G)$*

### C.3.1. Inégalités de carrières scolaires

**Tableau 1 : Inégalités de carrière scolaire**

	Inégalités inter-individuelles	Inégalités entre groupes				Proportion d'élèves sous le seuil de compétences
	% d'individus de 25-34 ans ayant atteint le niveau modal de formation (2001) (1)	Sortants précoces du système éducatif dont les parents ont reçu une éducation courte/longue (2000) (2)	Rapport des chances d'obtenir un diplôme du supérieur, selon le niveau d'études de ses parents (2000) (3)	Influence de l'origine sociale sur le plus haut niveau éducatif atteint (4)	% de femmes de 25-34 ans diplômées du tertiaire, rapporté au même % pour les hommes (2001) (5)	% d'individus de 25-34 ans sortis avant le second cycle long du secondaire (2001) (6)
<b>B</b>	39	$26 / 3 = 8,7$	3,0		$39 * 100 / 33 = 118$	25
<b>DK</b>	57				$34 * 100 / 25 = 136$	13
<b>D</b>	63			26 à 28 %	$20 * 100 / 23 = 87$	15
<b>EL</b>	49	$20 / 6 = 3,3$	2,3		$27 * 100 / 21 = 128$	27
<b>E</b>	43	$40 / 11 = 3,6$	2,0		$39 * 100 / 32 = 122$	43
<b>F</b>	43	$26 / 6 = 4,3$	2,3	20 %	$37 * 100 / 32 = 115$	22
<b>IRL</b>	48				$50 * 100 / 45 = 111$	27
<b>I</b>	45	$38 / 11 = 3,5$	6,8	26 à 28 %	$13 * 100 / 10 = 130$	43
<b>L</b>	41				$22 * 100 / 25 = 88$	41
<b>NL</b>	48			11 %	$26 * 100 / 27 = 96$	26
<b>A</b>	68	$24 / 10 = 2,4$	2,9		$14 * 100 / 16 = 87$	17
<b>P</b>	68				$17 * 100 / 10 = 170$	68
<b>FIN</b>	49	$13 / 8 = 1,6$	1,1		$46 * 100 / 33 = 153$	13
<b>S</b>	54	$18 / 10 = 1,8$	1,8		$39 * 100 / 34 = 114$	9
<b>UK</b>	38			17 %	$29 * 100 / 30 = 97$	32
<b>NO</b>	58				$40 * 100 / 30 = 133$	7
<b>CH</b>	66				$17 * 100 / 35 = 48$	8

- (1) En Belgique, le niveau éducatif auquel sont sortis le plus fréquemment les 25-34 ans est le second cycle du secondaire, qui est donc, dans ce pays, le niveau modal de formation pour cette tranche d'âge. 39 % des individus de cette tranche sont sortis à ce niveau là. Source : OCDE, 2002, Regards sur l'éducation, pp 40 et 52. .
- (2) En Grèce, 20 % des enfants dont les parents ont quitté l'école avant le second cycle du second degré, soit au niveaux CITE 1 ou 2, quittent l'école à ces mêmes niveaux CITE 1 ou 2, tandis que c'est le cas de seulement 6 % des enfants dont les parents ont fréquenté l'enseignement supérieur, soit les niveaux CITE 5 ou 6. L'indicateur est  $20/6 = 3,3$ .
- (3) Parmi deux jeunes sortis récemment du système éducatif en Espagne, le premier de parents issus de l'enseignement supérieur, le second de parents sortis de l'école avant le second cycle du secondaire, la situation où le premier possède un diplôme de

l'enseignement supérieur et le second non est 2 fois plus probable que la situation inverse. L'indicateur est le rapport des probabilités (odd ratio), ici 2,0.

- (4) L'origine sociale des élèves, définie par la profession et le plus haut diplôme atteint par leur père, explique, sur des cohortes récentes, en France, environ 20 % de la variation du niveau éducatif atteint par les élèves à la fin de leur carrière scolaire.
- (5) Au Danemark, 34 % des femmes de 25 à 34 ans ont suivi une formation tertiaire contre 25 % des hommes de la même tranche d'âge. L'indicateur est  $34.100/25 = 136$   
Source : OCDE, 2002, Regards sur l'éducation, p 59.
- (6) En Espagne, 24 % des individus de 25 à 34 ans sont sortis du système éducatif avant le cycle long du secondaire (CITE 1 ou 2).

#### Influence de l'éducation des parents sur le niveau éducatif atteint

Les indicateurs (2) et (3) sont issus de Iannelli, C., 2002, Parental Education and Young people's educational and Labour Market Outcomes : A comparison across Europe, in Kogan, I. et Müller, W., School to Work transition in Europe, Mannheimer Zentrum für Europäisches Sozial Forschung. Ce rapport exploite des données de l'enquête européenne Labour Force Survey, 2000. La population est composée des jeunes de 15 à 35 ans en 2000 ayant quitté l'école pour la première fois dans les 10 années précédentes (5 ans pour Finlande et Suède). Ces indicateurs témoignent donc du fonctionnement de l'école entre 1970 et 2000.

#### Influence de l'origine sociale sur le niveau éducatif atteint

On peut mesurer cette influence de multiples façons puisque peuvent varier :

- la mesure de la réussite scolaire (le nombre d'années d'études, réel ou théorique, le plus haut diplôme atteint, le plus haut niveau éducatif atteint, le fait de passer tel ou tel point de transition)
- la mesure de l'origine sociale (la profession, la profession et l'éducation, et ceci du père, de la mère, ou des deux)
- la mesure de leur association (écarts ou ratios de ratios, probabilité logistiques (odd ratios), régressions multiples).

L'indicateur retenu dans la colonne (4) est le  $R^2$  d'analyses de régression du plus haut niveau éducatif atteint par l'élève sur son milieu social. Les valeurs indiquées doivent être prises comme des ordres de grandeur parce que les calculs qui les ont produits ne sont pas homogènes.

Les différences dans le mode d'élaboration de l'indicateur apparaissent dans le tableau suivant :

	<b>Cohortes nées entre</b>	<b>Origine sociale définie par</b>	<b>Echelle des niveaux éducatifs</b>	<b>Profession du père mesurée par</b>
<b>Italie</b>	1948 et 1961	Instruction et profession du père		
<b>Allemagne</b>	1916 et 1960	Instruction et profession du père	4 degrés	Echelle de prestige
<b>France</b>	1964 et 1973	Instruction et profession du père ; instruction de la mère	7 degrés	Nomenclature des professions et positions sociales (INSEE)
<b>Pays-Bas</b>	1951 et 1960	Profession du père	4 degrés	
<b>Royaume-Uni</b>	1913 et 1959	Instruction et profession du père	6 degrés	
<b>Suède</b>	1902 et 1961	Instruction et profession du père ; type de communauté (urbaine ou rurale)	4 degrés	

### D.2.1. Contribution des plus éduqués à la situation des plus défavorisés

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La justification théorique de cet indicateur se trouve notamment chez Rawls (1971). A propos de l'éducation, ce dernier écrit que le fait que l'on consacre plus d'attention aux mieux dotés (*better endowed*) est justifié seulement si cela a pour effet « *d'améliorer les attentes à long terme des plus défavorisés* ». Rawls considère également qu'il n'est pas possible d'atteindre l'égalité des chances en éducation, entendue comme l'indépendance totale entre réussite scolaire et origine sociale. Il faut donc s'approcher autant que possible de cette égalité des chances et les inégalités scolaires d'origine naturelle d'une part, et la part irréductible des inégalités scolaires d'origine sociale d'autre part, doivent être mises au service des plus défavorisés<sup>5</sup>.

Comment décider si l'action des plus éduqués est favorable aux attentes à long terme des plus défavorisés ? Nous manquons évidemment d'indicateurs absolument pertinents. Il est des situations relativement claires : les avocats commis d'office mettent davantage leurs compétences au service des plus défavorisés que les avocats qui gèrent les divorces des personnes fortunées. De même, les jeunes filles brillantes d'origine pauvre aux USA qui ont bénéficié de bourses pour rejoindre un « collège prestigieux » et dont le discours témoigne d'une intention de devenir « *des agents de changement et des avocats au service des défavorisés* » témoignent d'un système éducatif plus équitable que si elles avaient énoncé leur satisfaction de pouvoir espérer entrer dans les classes supérieures (Marantz-Cohen, 1998). La production de médecins par le système éducatif contribue également davantage au renforcement de l'équité depuis que les inégalités d'accès aux soins médicaux se sont réduites.

Nous présentons ici notre travail pour instruire cette question : d'abord, deux approches que nous avons abandonnées, celle de l'activité professionnelle et celle du taux de rendement fiscal, puis les trois que nous avons finalement décidé d'utiliser : les transferts sociaux, la cohabitation et les valeurs.

Nous avons d'abord cherché à mesurer si, dans certains pays plus que dans d'autres, l'activité professionnelle des plus éduqués s'exerçait au bénéfice des plus pauvres. Cet indicateur reposait sur le principe suivant : toutes choses égales par ailleurs, un système éducatif est d'autant plus équitable que les plus qualifiés mettent au service des plus défavorisés, ou de tous en général, les compétences qu'ils ont acquises. Toutefois, cette tentative a échoué. Cette approche, en effet, pose des problèmes redoutables. D'abord, il faudrait disposer, pour chaque pays européen, d'un dénombrement des « professions » occupées par des personnes les plus diplômées, de façon à pouvoir mesurer, pour chacune, la proportion de ses « clients » selon leur position sociale ou leur niveau de revenu, et pondérer cette proportion par la fréquence de cette profession parmi l'ensemble des professions. L'enquête « Force de travail en Europe » ne donne qu'une décomposition très agrégée de la population active : la population qui nous intéresse est présentée en deux rubriques seulement : Dirigeants et cadres supérieurs ; professions intellectuelles et scientifiques. De même, la base de données LABORSTA ,

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<sup>5</sup> Cette lecture de Rawls est présentée plus en détail in Meuret D. (Ed.), La justice du système éducatif, De Boeck, 1999.

consultée sur le site web de l'OIE, présente la population active, classée selon la classification ISCO88 (sur cette classification, cf. Ganzeboom et Treiman, 1996, *Internationally Comparable measures of Occupational status for the 1988 ISCO*, Social science research 25, 201-239), mais seulement en utilisant la décomposition en neuf postes.

Une autre approche que nous avons explorée est celle du taux de rendement fiscal. Les travaux sur le taux de rendement privé de l'éducation font apparaître des taux de rendements importants et positifs de l'éducation tertiaire, en particulier dans les pays où cette éducation est financée par l'Etat (France, 20 % pour les hommes et 28 % pour les femmes, par exemple). Ces taux bénéficient particulièrement aux catégories favorisées, plus nombreuses dans l'enseignement supérieur. Deux réactions sont possibles du point de vue de l'équité : faire participer davantage les étudiants au financement de leurs études, par une contribution proportionnelle au revenu parental (Piketty, *Le Monde Economie*, 20/05/02) ; faire rembourser aux plus éduqués, sous forme d'impôts, la contribution publique qu'ils ont reçu pour leurs études. On peut apprécier ce dernier remboursement en calculant le taux de rendement fiscal des dépenses d'éducation, par exemple, des dépenses publiques consenties pour le financement de l'enseignement supérieur. Il y a là une « mise au pot commun » des revenus des plus éduqués qui va dans le sens de ce que nous cherchons à mesurer.

Cette dernière approche soulève cependant des questions :

- L'étudiant fournit un travail pour suivre ses cours, faire ses devoirs et préparer ses examens. On peut arguer que c'est ce travail que rémunère le financement public de sa scolarité. L'investissement de l'Etat ne consiste pas à « donner » de l'argent à quelqu'un – argent que ce quelqu'un devrait dès lors rembourser- mais à le payer pour un travail. Si l'Etat a misé à bon escient, il rentre dans ses fonds. S'il s'est trompé, tant pis pour lui : cela ne change rien au fait que l'étudiant ne lui doit rien... Si on accepte ce raisonnement, on peut calculer des taux de rendement fiscaux pour mesurer la pertinence des investissements de l'Etat, mais cela n'a rien à voir avec la justice.
- Une personne qui gagne par l'intensité de son travail la même somme qu'un très diplômé paiera autant d'impôt que lui, sans avoir pour autant à « rembourser » aucune « dette » à l'Etat. Pourquoi alors considérer que les impôts du second servent à rembourser un investissement qu'on a fait sur lui ? A quoi correspondent alors les impôts du premier ?
- Il semble qu'on pourrait distinguer, du point de vue de l'équité, deux aspects des surcroît de revenus que l'on retire de sa scolarité : l'un qui rémunère une productivité supérieure, l'autre, une rente, qui correspond à une limitation artificielle du nombre d'élus. Ces deux formes de revenus ne devraient pas être taxées de façon semblable, et donc être prise en compte de la même façon dans une réflexion sur l'équité des revenus tirés d'une scolarité. Une façon de mesurer la rente serait de mesurer l'écart de rémunération entre deux personnes de productivité identique mais dont l'une serait plus éduquée que l'autre. On sait cependant que la rente s'exerce à travers la segmentation du marché du travail plus que sur des postes dont on pourrait mesurer la productivité identique.
- Le calcul de ce taux repose sur l'idée que c'est la dépense d'éducation qui « produit » les compétences qui vaudront aux plus éduqués leurs plus hauts revenus. Or, les travaux sur les fonctions de production éducatives, ont montré que le lien entre le montant des dépenses et celui des compétences était fort lâche.



- Enfin, si l'on interprète vraiment le taux de rendement fiscal dans la perspective du Principe de différence, il ne vaut que si les dépenses publiques sont favorables aux défavorisés, ce qui peut n'être pas le cas, soit qu'elles visent d'autres objectifs -les subventions aux opéras et à la restauration des abbayes médiévales n'intéressent que modérément les catégories défavorisées – soit qu'elles soient inefficaces.

Ces raisons, jointes au fait que nous ne connaissions le taux de rendement fiscal que pour un petit nombre de pays<sup>6</sup>, nous ont fait abandonner cet indicateur.

A l'approche par le taux de rendement fiscal, nous avons préféré celle par les transferts sociaux. L'idée qui la fonde est que, dans un pays où la redistribution est forte, les plus hauts salaires gagnés par les plus éduqués servent davantage le bien-être des plus défavorisés que dans un pays où la redistribution est faible. Plus précisément, nous proposons ici un indicateur qui porte sur la réduction du nombre d'individus pauvres grâce aux transferts sociaux, soit un indicateur qui cible l'usage des transferts sociaux en faveur des plus pauvres et qui donc convient mieux à notre propos que, par exemple, la proportion des transferts sociaux dans le revenu national.

Sa définition est la suivante « % de la population avec un revenu faible avant (a) et après (b) appropriation des transferts sociaux par leurs bénéficiaires ». L'indicateur est :  $(a-b)*100/a$ .

Par exemple, le pourcentage de personnes avec un revenu faible est, aux Pays Bas, de 24 % avant transferts sociaux et de 12 % après transferts sociaux : les transferts ont donc diminué de 50 % le nombre de personnes avec un revenu faible.

Données issues de la vague 1995 du panel européen des ménages; Living conditions in Europe, Statistical pocket book. Further reading : Statistics in focus (population and social conditions) : Social benefits and their redistributive effects in the EU, n° 13 /1999 ( 2000 update forthcoming) ; European Community household panel : selected indicators from the 1995 wave, 1999.

Cependant, on sait que Rawls lui-même privilégie une réduction des inégalités primaires sur celle qui passe par la redistribution, laquelle peut, selon lui, nuire aux «respect de soi» des plus défavorisés, un autre des « biens sociaux premiers » dont la théorie de la justice organise la distribution.

Une autre approche est celle de la cohabitation. L'idée est que, si les plus qualifiés habitent dans les mêmes endroits que les « *plus défavorisés*, » ils contribuent davantage à augmenter leurs « *attentes à long terme* » (Rawls, TJ, p 132). A l'inverse, si, dans un pays, les plus qualifiés et les plus pauvres habitent des endroits complètement distincts, cela signifierait qu'en quelque sorte ils appartiennent à deux humanités différentes. Autrement dit, de

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<sup>6</sup> Il vaut en Belgique 9 % pour les hommes et 13 % pour les femmes. Les chiffres correspondants sont au Danemark 8 et 8, en France 11 et 9, en Suède ,6 et 4. Source : L'investissement en Capital Humain, une comparaison internationale, OCDE, 1998. Cet indicateur rapporte la somme actualisée des surcroûts d'impôts perçus de ceux qui ont reçus une éducation tertiaire par rapport à ceux qui se sont arrêtés à la fin des études secondaires à la dépense actualisée consentie par les collectivités publiques pour leur scolarité tertiaire.

fréquenter les plus qualifiés se traduirait pour les pauvres par l'idée qu'ils appartiennent au même monde d'une part, et que cette situation n'est pas hors d'atteinte de leurs enfants d'autre part. Cette idée vaut dans la mesure où la ville moderne, à la différence de la ville du XIX<sup>ème</sup> siècle, rassemble en un même lieu ceux qui s'estiment semblables (Donzelot, J., 2003, Faire société, Seuil). Il se trouve que, pour le dernier recensement (1999), l'INSEE procure une division du territoire en unités de moins de 2000 habitants (IRIS) qui permet de mesurer si qualifiés et pauvres habitent les mêmes endroits.

La réalisation d'un index pour cette approche cohabitation pose un problème, qui vient de ce que pauvres et qualifiés sont deux catégories indépendantes. Une solution serait de s'intéresser à la ségrégation des qualifiés au sein de l'ensemble de la population, mais on perd l'idée de priorité aux plus défavorisés. A supposer qu'on adopte néanmoins cette solution, il faudrait choisir l'indice : soit le « *dissimilarity index* » (Combien de qualifiés faudrait-il déplacer pour qu'ils soient également répartis entre toutes les zones IRIS ?) soit le « *isolation index* » qu'utilise Noden (Quelle est la probabilité que le cohabitant d'un qualifié dans une zone IRIS soit aussi un qualifié ?).

On pourrait aussi imaginer, si l'on ne veut pas perdre la cohabitation qualifiés/pauvres, un indice à partir du produit de la proportion de qualifié dans une zone et de la proportion de pauvres dans la même zone ( Si le % de plus éduqués est fort quand le % de pauvres est fort, on est dans des conditions Rawlsiennes optimales).

Toutefois, nous ne disposons pas de données permettant des comparaisons internationales en la matière. L'approche de la cohabitation est donc représentée dans notre fiche par deux autres indicateurs, tous deux calculés à partir de données PISA :

- Elèves dont le père a achevé avec succès des études de niveau CITE 5+6 et la mère un niveau ISEI qui la situe dans le quart inférieur de l'échelle ISEI de son pays + Elèves dont la mère a achevé avec succès des études de niveau CITE 5+6 et le père un niveau ISEI qui le situe dans le quart inférieur de l'échelle ISEI de son pays) \* 100 / Elèves dont au moins un des deux parents a achevé avec succès des études de niveau CITE 5+6 . Source : Calculs à partir des données PISA. Il est bien sûr possible que les deux parents ne vivent plus ensemble au moment où leur enfant répond au questionnaire, mais au moins est-on sûr qu'ils l'ont fait un certain temps.
- Surcroît de chances, si au moins un des deux parents d'un élève est diplômé de l'enseignement supérieur, qu'il fréquente un établissement dont plus de la moitié des élèves de 15 ans qui le fréquentent ont au moins un de leurs parents qui appartiennent à la moitié la plus élevée de l'indice ISEI. (A l'inverse du précédent, plus cet indicateur est grand moins les plus éduqués se mêlent aux pauvres). Attention, dans certains pays comme la France et la Grèce, où les élèves qui ont un an de retard sont dans des établissements de nature différente des élèves qui sont à l'heure, la population des élèves de 15 ans peut être d'un niveau scolaire et social différent de celui des autres élèves de l'établissement, de sorte que les indications doivent être prises avec beaucoup de prudence.

Une troisième approche est celle des valeurs. Les plus éduqués se sentent ils plus solidaires des plus pauvres dans certains pays que dans d'autres ? Si c'est le cas, on peut penser que leur pratique sera davantage orientée vers les «attentes à long terme» des plus faibles et se trouvera donc davantage conforme au principe de différence rawlsien. Plusieurs questions de l'European Value Survey (EVS)<sup>7</sup> de 1999 abordent cette question de la solidarité :

**Q5a** Which of these voluntary organisations do you belong to :

*A Social welfare service for elderly, handicapped or deprived people*

B Religious or church organisations

C Education, arts, music or cultural activities

D Trade unions

E Political parties and groups

*F Local community action on issues like poverty, employment, housing, racial equality*

*G Third world development or human rights*

H Conservation, environment, ecology, animal rights

I Professional associations

J Youth work

K Sports or recreation

L Women's groups

M Peace movement

N Voluntary organisations concerned with health

O Other groups

**Q11** Why are there people in this country who live in need?

A because they are unlucky

B because of laziness and lack of willpower

*C because of injustice in our society*

D it's an inevitable part of modern progress

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<sup>7</sup> L'EVS est un programme d'études international, piloté par des chercheurs en sciences politiques et en psychologie sociale, qui repose sur un questionnaire passé sur des échantillons d'environ 1000 personnes dans, entre autres, tous les pays de l'Union Européenne. La première version a été réalisée en 1981, la deuxième en 1990. Nous utilisons ici la troisième (1999). Nous devons les traitements sur ces données à M. Pierre Bréchon, Président d'ARVAL (Association pour la recherche sur les systèmes de valeurs) et chercheur au Centre d'Informatisation des Données en Sciences Politiques (CIDSP- CNRS), Grenoble (France).

**Q76** In order to be considered just what should a society provide?

*A Eliminating big inequalities in income between citizens ( 1 very important, 5 not at all important)*

*B Guaranteeing that basic needs are met for all in terms of food, housing, cloths, education, health*

*C Recognising people on their merits*

*D Giving young people equal opportunity to pursue their education irrespective of family income*

Ces trois questions ont été utilisées pour construire les indicateurs suivants :

Parmi les adultes qui déclarent avoir atteint un diplôme de l'enseignement supérieur, pourcentage de ceux qui :

- répondent 1 (« très important ») à la question Q76 A ;
- répondent 1 (« très important ») à la question Q76 B ;
- répondent C à la question Q11 ;
- répondent A, F ou G à la question Q5a<sup>8</sup>.

Nous avons préféré ces indicateurs à une mesure de l'écart, dans chaque pays, entre les réponses des plus éduqués et des autres adultes à ces mêmes questions. Bien que cet écart ne soit pas sans intérêt, ce qui nous intéresse ici du point de vue de la justice est l'inclination des plus qualifiés à la solidarité en tant que telle, qu'elle trouve son origine dans les valeurs transmises par la scolarité ou dans d'autres modes d'imprégnation. D'autre part, une mesure simple de l'écart entre les plus éduqués et les autres ne nous aurait pas vraiment indiqué l'effet net de la scolarité sur les valeurs.

La taille de l'échantillon des plus éduqués dans les pays considérés oscille le plus souvent entre 200 et 300 individus, les extrêmes sont 361 (France) et 77 (Portugal).

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<sup>8</sup> Le numérateur de l'indicateur est la somme des personnes qui ont répondu participer à l'une ou l'autre forme d'association. Si certains individus participent à plusieurs types d'associations, notre indicateur surestime le pourcentage d'individus qui participent à « un ou plusieurs » de ces types d'associations. Nous n'avons pas fait figurer la participation aux trade-unions dans l'indicateur, bien qu'il eut été intéressant de prendre en compte des formes politiques et pas seulement caritatives de solidarité, faute de savoir si les syndicats concernés étaient à portée générale ou corporatistes.

ANNEXE RELATIVE A  
L'ENQUETE PILOTE EUROPEENNE SUR LES  
SENTIMENTS DE JUSTICE A L'ECOLE  
(Quick survey)

Cette annexe est consacrée à l'enquête sur le sentiment de justice réalisée au cours du projet. La première partie<sup>9</sup> expose brièvement les raisons de s'intéresser à la justice scolaire et aux représentations qu'en ont les acteurs. La seconde, exclusivement technique, précise les domaines investigués, relate la procédure mise en place, fournit les informations techniques relatives aux différents échantillons et enfin, présente les questionnaires construits.

Pour rappel, le projet *Construire des indicateurs internationaux des systèmes éducatifs* poursuit, à long terme, trois objectifs majeurs :

- permettre de mesurer et comparer l'équité des systèmes éducatifs des pays de l'Union ;
- aider les décideurs pour la (re)définition des politiques éducatives et enfin,
- permettre tant aux usagers qu'aux gouvernants de juger de l'équité du système. Partant, les décideurs seront ainsi informés du jugement des citoyens quant à l'équité du système en place.

Si la construction de la majeure partie des indicateurs envisagés repose sur une lecture nouvelle de données déjà existantes, issues notamment des grandes enquêtes internationales (TIMSS, PISA), une récolte de nouvelles données était prévue et a été organisée, dans chacun des pays partenaires, par le biais d'une enquête auprès d'enseignants et d'élèves. Cette enquête s'intéressait aux critères de justice des usagers de l'école, cherchait à appréhender leur jugement par rapport à l'équité du système et leurs attentes face à ce système. Cette enquête vise, en partie et à ce jour, modestement, à répondre au troisième objectif visé.

L'enquête ici organisée est à envisager comme une enquête pilote même si certains, dans des contextes différents, s'étaient déjà intéressés aux sentiments et critères de justice d'élèves, d'enseignants ou plus généralement, d'adultes (GRISAY, 1993, 1997 ; MEURET & ALLUIN, 1998, HUTMACHER, 2001).

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<sup>9</sup> Ce texte est une synthèse de la première partie d'un texte de D. MEURET, présenté dans le cadre d'un séminaire sur l'éducation au *vivre ensemble*. Mars 2002.

## ***1. Pourquoi mesurer les critères et les sentiments de justice des acteurs des systèmes éducatifs ?***

Un système éducatif ou un établissement scolaire qui ferait de grands sermons sur la citoyenneté, le respect et autres éminentes valeurs et qui, dans un même temps, traiterait ses élèves de façon injuste, ne manquerait pas de s'exposer au mépris et à la violence. Ainsi, permettre aux acteurs de l'école de s'interroger et de vérifier s'ils sont traités de manière juste est sans doute une condition du bon fonctionnement des systèmes éducatifs.

GRISAY (1997), pour la France, a mis en évidence que les élèves qui pensaient être traités de façon juste dans leur collège par les enseignants progressaient davantage en français et en math mais améliorent également leur motivation, leur sentiment de maîtrise, leur méthode de travail, leurs attitudes civiques, leur image d'eux-mêmes et leur vision de l'avenir. Ils éprouvent également un meilleur bien-être (MEURET & MARIVAIN, 1997). Plus généralement, l'enquête PISA montre que, pour les 32 pays participants, les établissements scolaires dont les élèves déclarent avoir de bonnes relations avec les professeurs<sup>10</sup> ont de meilleures performances que les autres.

Pourquoi s'intéresser aux perceptions de l'injustice des systèmes éducatifs ?

Il convient de s'intéresser aux sentiments de justice à l'école pour des raisons d'ordre politique d'une part, théorique d'autre part.

La dénonciation des inégalités scolaires a été le fait des statisticiens et des sociologues avant d'être le fait des citoyens. Cette question interpellait enseignants et responsables du système éducatif mais elle n'était pas un problème politique au sens premier du terme : un problème dont les citoyens souffrent directement, jugent les politiques responsables et par conséquent les départagent en fonction de leur capacité à le régler. Le chômage ou encore l'insécurité sont dans ce sens des problèmes politiques, l'éducation non ou plutôt pas encore.

Aux États-Unis par exemple, l'équité de l'éducation est devenue un problème politique. Les cours suprêmes de plusieurs états ont dû se prononcer sur diverses plaintes pour iniquité déposées contre l'organisation du système éducatif et où les choix posés en matière d'éducation ont joué un certain rôle dans la dernière campagne présidentielle. Si telle n'est pas encore la réalité dans tous les pays, il est probable que cela le devienne rapidement.

En effet, les conséquences sociales de l'échec scolaire seront de plus en plus importantes. Par ailleurs, l'idée que les enfants et les jeunes doivent être traités avec justice ne cesse de progresser. Les individus risquent ainsi de soucier de plus en plus d'équité ; il est de ce fait fort peu probable que l'éducation et partant l'équité de sa distribution, ne deviennent pas une question politique au sens premier du terme.

Des signes avant-coureurs sont observés, par exemple ce sondage français (Challenge, 2000), mené auprès de 400 parents, selon lequel 31 % des parents employés, contre 65 % de parents cadres trouvent que « collège et lycée traitent les élèves à égalité ». De même que l'enquête menée par HUTMACHER (2001) révèle que 70 % des adultes suisses estiment que l'école a une grande responsabilité dans la genèse des inégalités éducatives.

Face à cette analyse, les gouvernements ont intérêt à se doter d'un outil leur permettant de connaître à la fois ce que les citoyens et les acteurs du système éducatif (enseignants, élèves et

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<sup>10</sup> Un construit dont fait partie le sentiment d'être traité avec justice.

parents) pensent de la justice de leur système éducatif et les critères à l'aide desquels ils fondent leurs jugements.

Outre ces quelques raisons politiques, des raisons théoriques peuvent également être avancées.

L'étude des inégalités a été entreprise depuis longtemps. L'étude des injustices elle, est encore peu fréquente. Les sociologues expliquent les inégalités sociales devant l'école par des mécanismes sociaux. Ces explications ne justifient vraiment de s'intéresser aux sentiments des acteurs de l'école sur la justice de leur expérience scolaire, d'autres explications peuvent par contre les justifier.

Si l'accent est mis sur la responsabilité de l'école dans la genèse des inégalités scolaires, si l'école elle-même et pas seulement l'environnement social a ce type de responsabilité, il est alors probable qu'une partie au moins des inégalités observées résulte de processus injustes envers certains élèves.

Cette responsabilité de l'école est maintenant établie : les élèves faibles et les élèves défavorisés progressent moins que les autres élèves moins à cause de leur handicap initial qu'à cause des moins bonnes conditions d'apprentissage qui leur sont offertes (Grisay, 1997 ; PISA, 2001). Ces inégalités s'exercent au sein de la classe, entre classes d'un même établissement et entre établissements.

Ces inégalités portent cependant sur des interactions entre enseignants et élèves ; il est de ce fait difficile d'y démêler la part de responsabilité des enseignants, des élèves et de l'institution. Certaines situations inéquitables ne seront peut-être pas perçues comme telles tandis que d'autres, dites inéquitables, ne le sont probablement pas. Mesurer le degré d'iniquité réelle de l'action inégalitaire de l'école est sans aucun doute difficile mais néanmoins intéressante. Pour ce faire, l'interrogation des acteurs apparaît comme une des seules voies possibles.

En s'engageant dans cette voie, plusieurs biais doivent être soulignés. Tout d'abord, l'environnement social peut influencer les critères et rendre difficiles les comparaisons d'un pays à l'autre ; ensuite, l'ignorance des possibles peut faire trouver juste une situation qui ne l'est pas ; enfin, l'ignorance du sort des autres peut aussi biaiser la comparaison et donc le sentiment de justice. Ainsi par exemple, des élèves d'établissements populaires et leurs parents pourraient ne pas trouver leurs conditions de scolarisation injustes parce qu'ils ignorent ce que sont ces conditions pour d'autres établissements.

Il ne s'agit donc pas d'aller chercher dans les sentiments de justice une « vraie » mesure de l'injustice. Il s'agit plutôt de reconnaître que les théories sont quelques fois incertaines et ne peuvent faire l'économie d'une confrontation avec les sentiments de justice, aussi mal fondés qu'ils puissent être.



## II. Informations techniques

- Tous les pays partenaires se sont engagés dans l'enquête : la Belgique, la France, l'Espagne, l'Italie et l'Angleterre.
- Un prétest a été réalisé dans 3-4 classes et auprès d'un petit échantillon d'enseignants des différents pays. L'enquête étant elle-même exploratoire, le prétest réalisé portait essentiellement sur la forme (compréhension des questions, questions éventuellement problématiques,...) des questionnaires et la procédure à suivre.
- L'enquête a été menée dans le courant du mois de novembre 2002 dans les différents pays concernés. Elle s'adressait aux élèves de 8<sup>e</sup> grade et aux enseignants de ce niveau d'études.
- Dans chacun des pays partenaires, l'enquête s'adressait à **deux échantillons**, l'un de classes (élèves) ; l'autre d'enseignants. Il a été décidé de sélectionner, dans la mesure du *possible*,
  - **40 écoles** (2 classes interrogées par école) : dans une série de 10 écoles, les questionnaires élèves étaient administrés par des externes aux établissements (équipes universitaires). Dans les 30 écoles restantes, les questionnaires étaient envoyés aux directeurs ; le personnel des établissements prenant en charge la passation des questionnaires.
  - +/- **500 enseignants** : seuls les enseignants des 10 écoles où les équipes universitaires ont administré les questionnaires *élève* ont été interrogés. Les questionnaires étaient adressés à tous les enseignants du niveau d'études touché par l'enquête.

Le tableau présenté à la fin de cette note synthétise la manière dont chaque pays partenaire a pu construire un échantillon répondant à cette proposition de départ.

- Les échantillons sont des échantillons aléatoires, à deux degrés. Une sélection d'écoles a eu lieu, ensuite une sélection de classes. Si l'information était disponible, la sélection des écoles se faisait proportionnellement à la taille de l'établissement. Dans un cas, l'échantillon a été stratifié selon le type d'école (Angleterre). Dans tous les cas, l'ensemble des élèves des classes sélectionnées passaient le test.
- Si l'enquête n'a pas pu être réalisée sur la base de l'ensemble des écoles du pays, l'échantillon a été constitué aléatoirement dans une zone circonscrite connue. Bien qu'il s'agisse d'une étude pilote, il est effectivement important de pouvoir préciser la population visée.
- Une fois les écoles sélectionnées, un premier contact a été établi avec les écoles par courrier. Suite à ce courrier, un entretien téléphonique a eu lieu pour obtenir l'accord des écoles sélectionnées et le cas échéant, prendre et donner toutes les informations utiles au bon déroulement de l'enquête (nombre de classes du 8<sup>e</sup> grade et désignation au hasard de 2 classes parmi celles-ci ; nombre d'élèves, nombre de professeurs à ce niveau d'étude, ...). En cas de refus, une école était choisie au hasard parmi les écoles de remplacement.
- La passation des questionnaires *élève* était organisée sur une période de cours au maximum. Si les écoles le souhaitaient, les élèves des classes concernées par l'enquête pouvaient être rassemblés dans une même salle. Afin de garantir l'anonymat quant aux réponses données, un élève, désigné par l'administrateur de test en fin de séance, était chargé de reprendre les copies, de les glisser dans une enveloppe et de remettre celle-ci, fermée, au directeur ou à l'administrateur extérieur, selon le cas.

- Pour le questionnaire *enseignant*, le temps de réponse ne devait pas dépasser les 20 minutes. Dans toutes les écoles, le directeur devait remettre un questionnaire à chaque enseignants du degré d'étude concerné par l'enquête (le 8<sup>e</sup> grade)<sup>11</sup> ; les enseignants le complétaient au moment où ils le souhaitaient et le renvoyaient le plus rapidement possible aux enquêteurs, en utilisant l'enveloppe pré-adressée et pré-affranchie jointe au questionnaire.
- Les questionnaires construits visaient à récolter des informations relatives
  1. aux critères de justice des acteurs de l'école,
  2. aux jugements sur la justice du système éducatif et enfin,
  3. aux jugements sur la justice avec laquelle sont traités les élèves.

Les questionnaires enseignants et élèves sont repris en annexe, dans leurs différentes versions.

- Dans les deux questionnaires, les questions sont des questions à réponse fermée. Cependant, le questionnaire *élève* comprenait une question ouverte leur demandant s'ils avaient quelque chose à ajouter. S'ils le souhaitaient, les enseignants étaient invités à ajouter, sur une feuille à part, leurs commentaires éventuels.
- Une partie du questionnaire élève était réservée à l'identification des sujets : mois et année de naissance, sexe, pays de naissance et origine sociale. Pour appréhender l'origine sociale, une question à réponse ouverte a été utilisée. Cette réponse a dû être codée, en 1 chiffre, en fonction de la classification *Isc*. Chaque pays devait assurer pour ses questionnaires le codage des réponses données à cette question.
- Le tableau présenté à la page suivante reprend les caractéristiques des différents échantillons nationaux.

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<sup>11</sup> Étant donné la procédure utilisée pour toucher les enseignants, nous ne savons pas si le faible taux de retour des questionnaires enseignants est dû au non-intérêt des enseignants pour l'enquête ou une mauvaise diffusion des questionnaires auprès des enseignants.

Belgique	
<b>Population mère</b>	Ensemble des écoles de la <b>Communauté française</b> (450 écoles)
<b>Échantillon</b>	Sélection des écoles proportionnelle à la taille des établissements
<u>Les élèves :</u>	<p><b>36 écoles</b> dans chacune desquelles 2 classes de <i>2<sup>e</sup> secondaire</i> désignées au hasard par l'équipe universitaire ont été interrogées (<b>72 classes</b>) (au total, 50 écoles ont été contactées<sup>12</sup>).</p> <p>Dans 10 écoles, l'enquête a été administrée par l'équipe universitaire</p> <p>Dans 26 écoles, l'enquête, acheminée par voie postale, a été administrée par du personnel interne aux établissements</p>
<u>Les enseignants :</u>	Dans les 10 premières écoles, des questionnaires à l'attention de tous les enseignants du <i>premier degré</i> ont été remis au chef d'établissement (entre 50 et 70 questionnaires selon les écoles).
France	
<b>Population mère</b>	Ensemble des établissements publics ou privés situés sur le territoire de la <b>ville de Paris</b>
<b>Échantillon</b>	Sélection des écoles proportionnelle au nombre d'élèves de 8 <sup>e</sup> grade.
<u>Les élèves :</u>	<p><b>37 écoles</b> dans chacune desquelles 2 classes de <i>quatrième</i> désignées au hasard par le chef d'établissement ont été interrogées.</p> <p>Dans 10 écoles, l'enquête a été administrée par des intervenants externes</p> <p>Dans 27 écoles, l'enquête, acheminée par voie postale, a été administrée par du personnel interne aux établissements</p>
<b>Les enseignants</b>	Dans les 10 premières écoles, 30 questionnaires à l'attention des enseignants de <i>quatrième</i> ont été remis au chef d'établissement
Espagne	
<b>Population mère</b>	Ensemble des établissements de la <b>ville de Madrid</b> (383 écoles)
<b>Échantillon</b>	Aléatoire simple d'écoles (l'information <i>taille de l'établissement</i> n'étant pas disponible)
<u>Les élèves :</u>	<p><b>30 écoles</b> dans chacune desquelles 1 ou 2 classes du 8<sup>e</sup> grade désignées au hasard ont été interrogées (<b>39 classes</b>).</p> <p>Dans 10 écoles, l'équipe universitaire a pris en charge l'administration de l'enquête, suivant strictement les consignes de la coordination (2 classes par école sauf 2 ou 1 seule classe de 8<sup>e</sup>)</p> <p>Dans 20 écoles, l'enquête acheminée par voie postale, a été administrée par du personnel interne aux établissements. Un responsable avait été désigné par la direction.</p>
<b>Les enseignants</b>	Dans les 10 premières écoles, 10 questionnaires par école ont été remis aux directeurs à l'attention des enseignants

<sup>12</sup> Plusieurs écoles ont motivé leur refus de participer en invoquant leur prochaine participation à l'enquête PISA. Ils ne pouvaient pas, en termes de temps et d'organisation, répondre à toutes les demandes.

Italie	
<b>Population mère</b>	Ensemble des établissements scolaires de la <b>ville de Rome</b> ( <i>scuola media</i> )
<b>Échantillon</b>	Aléatoire simple d'écoles
<b>Les élèves :</b>	<b>40 écoles</b> dans lesquelles 1 classe du 8 <sup>e</sup> grade sélectionnée au hasard a été interrogée ( <b>40 classes</b> ) Dans 10 écoles, l'enquête a été administrée par l'équipe universitaire Dans 30 écoles, l'enquête, acheminée par voie postale, a été administrée par du personnel interne aux établissements
<b>Les enseignants</b>	Dans les 10 écoles où l'équipe universitaire a administré le questionnaire élèves, des questionnaires ont été remis à l'attention des enseignants.
Royaume-Uni	
<b>Population mère</b>	The <b>south Wales unitary authorities</b> of Cardiff, Bridgend, Caerphilly, Vale of Glamorgan and Rhondda, Cynon, Taff (111 écoles)
<b>Échantillon</b>	Aléatoire d'écoles, en tenant compte du type d'établissement <sup>13</sup>
<b>Les élèves :</b>	<b>25 écoles (46 classes)</b> Dans 5 écoles, l'enquête a été administrée par l'équipe universitaire (2 classes par école) Dans 20 écoles, l'enquête, acheminée par voie postale, a été administrée par du personnel interne aux établissements (2 classes par école)
<b>Les enseignants</b>	Des questionnaires enseignants ont été remis aux directeurs des 5 premières écoles.

■ Le tableau ci-après reprend les nombres de questionnaires *élève* et *enseignants* reçus en retour. Le nombre de questionnaires *élève* rentrés est relativement important dans tous les pays. Par contre, les questionnaires enseignants sont très peu nombreux. Sans doute est-ce dû à la procédure utilisée ?

	Questionnaires élèves	Questionnaires enseignants
<b>Com. Fr. (Belgique)</b>	1632 ( /1644 <sup>14</sup> )	121
<b>Paris</b>	837 ( <sup>15</sup> )	80
<b>Madrid</b>	1122	48
<b>Rome</b>	819	168

<sup>13</sup> 5 types d'écoles existent dans la zone prise comme population de référence : *comprehensive, cheruc, Welsh medium, independent, single sex*.

<sup>14</sup> La différence s'explique par l'absence de certains élèves lors de la passation de l'enquête dans leur classe.

<sup>15</sup> Les nombres exactes des questionnaires enseignants et élèves envoyés dans les autres pays partenaires ne nous ont pas été communiqués.

<b>Wales</b>	1001	21
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- Au vu des faibles taux de retour des questionnaires enseignants, seuls les données relatives aux questionnaires élèves ont été traitées.

- Quelques difficultés ont été rencontrées pour l'analyse des ces données :
  - Pays d'origine : une proportion élevée d'élèves français ont répondu qu'ils étaient nés en dehors du pays du test. Près de 70 % d'entre eux ont répondu qu'au moins un de leurs parents n'était pas né en France. Ces problèmes sont sans aucune doute liés à une erreur qui s'est glissée dans le questionnaire : « Belgique » au lieu de « France » leur était proposé comme réponse comme le pays de lieu de test, même si des instructions ont été donnée pour corriger cette erreur ;
  - Profession des parents : les réponses données par les élèves italiens n'ont pas été codées. Pour les autres questionnaires, la répartition des professions en 10 catégories a été problématique. Les élèves qui ont donné des réponses vagues, qui ont dit leurs parents retraités, au chômage ou qui ont leur mère à la maison ont été placé dans une seule catégorie (9), la plus faible.
  - Il est important de signaler que la catégorie « faibles résultats » repose sur les dire des élèves et ne reprend donc que les élèves qui ont eux-mêmes déclarés avoir de faibles résultats. Aucune information relative aux résultats des élèves interrogés ne nous ont été transmises par les écoles.
  - Les élèves scolarisés dans les écoles non-mixtes n'ont pas pu répondre à la question 6f « Dans mon école, les enseignants traitent mieux les filles que les garçons ».

### ***III. Questionnaires élèves et enseignants et instructions relatives à la passation***

Sont repris ci-après la version belge du questionnaire adressé aux élèves et du questionnaire adressé aux enseignants.