



## Key messages from the 20/05 NESSE seminar on the origins and outcomes of educational inequality

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Social inequality in education refers to differences between social groups (by class, ethnicity or gender) in average educational opportunities, treatment or outcomes. *Unequal opportunities* occur as a result of factors external to the school which impact on a child's opportunity to access educational programmes and to learn and achieve on them. *Unequal treatment* refers to differences in educational experience encountered in educational institutions (and so include "school effects" and "peer effects").

- The most powerful factor influencing the achievement of individual children in most countries remains **family social class**. In the developed countries **gender** still has some impact in choice of subjects and on attainment at the highest levels, but in many cases girls are on average now out-performing boys through to the end of the school system. The relationship between **ethnicity** and educational achievement is extremely complex and varies by group and context. Some minority ethnic groups out-perform the majority group in education and some under-achieve, although much of the ethnic under-achievement disappears when you control for social class.
- Social inequalities in education have been endemic since national education systems were first developed in the 19<sup>th</sup> century. Typically, as one phase of education has become universalised and democratised (from elementary to lower secondary and then upper secondary), so the frontier of selection and social sorting has moved upwards to the next phase (Boudon, 1974) – now upper secondary and tertiary education. Education reforms during the last century have led to everyone having more schooling. However, the chances of children from lower social groups achieving the highest levels of education (say at university level) relative to those from top social groups have often barely improved. By the mid 1980s researchers (Shavit and Blossfeld, 1983) concluded that twenty years after the abolition of selection to secondary schools in a number of national systems the relative chances of mobility in education for different social groups had not much changed. The expansion of higher education in many western countries since the 1960s has mainly benefitted the children of the middle class families, and particularly their daughters.
- All countries manifest social inequality in their education systems. But some are much more unequal than others. The OECD analyses of the PISA surveys conducted in 2000, 2003 and 2006 do show that selection to different types of secondary school significantly increases levels of inequality in education.

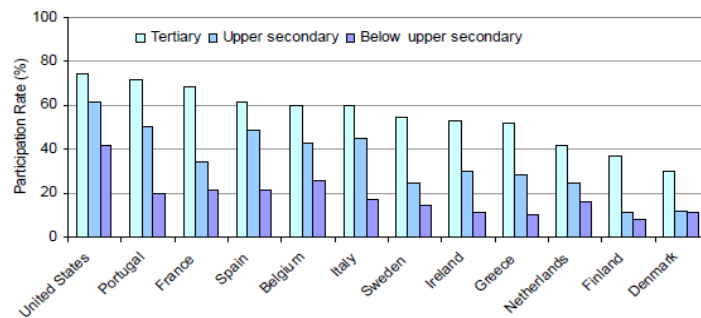
### Disadvantage and Inequality through the Life Course.

Research shows that family background influences educational achievement throughout the life course and at all stages of education and training.

- Analysis of the longitudinal data (Feinstein, 2003) from the British Cohort Study – based on children born in 1970 with surveys carried out at 22 and 42 months and at years: 5, 10, 16, 26 and 30 – shows that already at 22 months there is a 13 percentage points difference in the average cognitive ability scores of children from families in the top and bottom SES groups. By the age of ten children from high SES families, who scored in lowest quartile at 22 months, have overtaken children from families in the low SES group, who scored in the top quartile at 22 months.
- Research by Goodman and Gregg (2010), also based on longitudinal data, shows that by age 11 only around three quarters of children from the poorest fifth of families in the UK reached the Government's target level at Key Stage 2 compared to 97% of the richest fifth.
- By the end of secondary schooling the gaps social inequalities in education have become very substantial in most countries. The chance of a young person whose parents had tertiary education of

participating in tertiary education themselves is several times higher than that of a young person whose parents did not reach upper secondary education.

**Youths Participating in Tertiary Education by Educational of their Parents, 1994-95**



Note: Participation rates of 18-24 year olds.

Source: EURYDICE (1997).

- Data from the international Adults Literacy Survey (IALS) show that adults (18-64) who have higher levels of education are much more likely to have participated recently in continuing training than those with lower levels.

### The Mechanisms of Social Stratification in Education

An individual's attainment in education is strongly affected by family background, the school attended and the design of the education system. The stronger each of these influences the greater will be the stratification in the education system.

- Family background impacts on educational achievement: 1) directly through family socialisation and how that affects a child's ability to learn and succeed in school and 2) indirectly, through family influence on the choice of school.
- Schools play a part in stratification through: 1) "pure school effects" (some schools are better resourced and provide better teaching than others) and 2) "school peer effects" ie the influence of those a child learns with.
- In many countries the peer effect on individual student outcomes is greater than direct background influences or other school effects (Mostafa, 2009).
- School system effects: the design of a national education system also affects the degree of stratification in education.

Raymond Boudon's "positional theory" of educational inequality provides an explanation of how these forces interact. He argues that the children's educational opportunities are not only affected by the kind of early socialisation they receive in the family – including the skills and forms of cultural capital imparted to them which help them to achieve in school. The social class of the family also affects educational achievement through the way in which it shapes the educational choices made by parents and students. Depending on where they are positioned socially, students are likely to make different calculations about the relative costs and benefits of selecting the most prestigious academic routes in education which will affect their educational achievements. Educational systems which offer more "branching points" (opportunities for academic selection) are likely to allow social background to have more influence on the achievement of individual students through the choices they themselves make.

### Education System Effects on Social Inequality in Education and their Implications for Policy

Improved international data on educational achievement (through PISA, TIMMS etc) has allowed us much better insight into the effects of different policies on educational inequality. Through multi-level modelling of the data it is now possible to see how far the individual's educational achievement is determined by

family background, the school attended and the organisation of the education system. Although the direct effects of the family remain high in many countries, school effects and school system effects are also considerable. In many countries, who you are educated with (the school peer effect) has more influence than the social background you come from. Levels of social inequality in education vary considerably from country to country. This partly reflects societal differences in terms of degrees of social stratification and income inequality. But it also has to do with how the educational systems are structured in different countries.

OECD (2006) cross-country analyses of the PISA data show that the degree of social inequality in an education system (measured in terms of the social gradient of scores in each of the country samples) is positively correlated at the system level with early selection to different types of schools and degrees of decentralisation of control (to the regional level). An analysis across countries and country groups (Green, 2008), also using PISA data for 2006, shows that on most measures of educational inequality Nordic countries do much better than either the English-speaking countries or the German-speaking countries (and countries proximate to Germany such as Belgium with similar education systems). The most likely explanation for the higher levels of inequality in the latter two groups is the high level of tracking of different kinds (through selection by ability to schools or ability grouping within schools). By contrast, the Nordic countries all have mixed-ability, non-selective schools, with little formal ability grouping within schools. Furthermore, primary and secondary schools are integrated, so that even where 'school choice' exists, children typically go to the local primary school and stay there through their secondary education. Since residential segregation is not high in most areas, schools are consequently quite similar in the social mix of their intakes and their average levels of performance. Although social background still has a substantial effect on individual achievement, schools are contributing little additional social inequality to educational outcomes.

### **The Social and Economic Outcomes of Educational Disadvantage and Inequality**

Individuals benefit from higher levels of education both economically and socially:

#### *Economic Benefits for the Individual:*

- Employment rates and earnings increase with each level of education.
- The earnings premium for tertiary education is substantial in most countries and exceeds 50% in 17 out of 28 OECD countries.
- Males with Type A tertiary education earn on average 80% more than those with only upper secondary or post-secondary non-tertiary in Hungary, Czech Republic, Poland, Portugal, Israel and the USA.
- The education earnings gap increases with age in most countries.

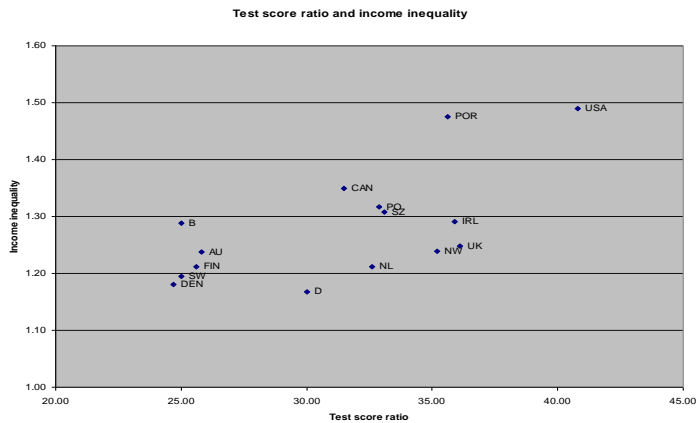
#### *Social Benefits for the Individual:*

Research in various countries has shown that higher levels of education are associated with a variety of social benefits to the individual including:

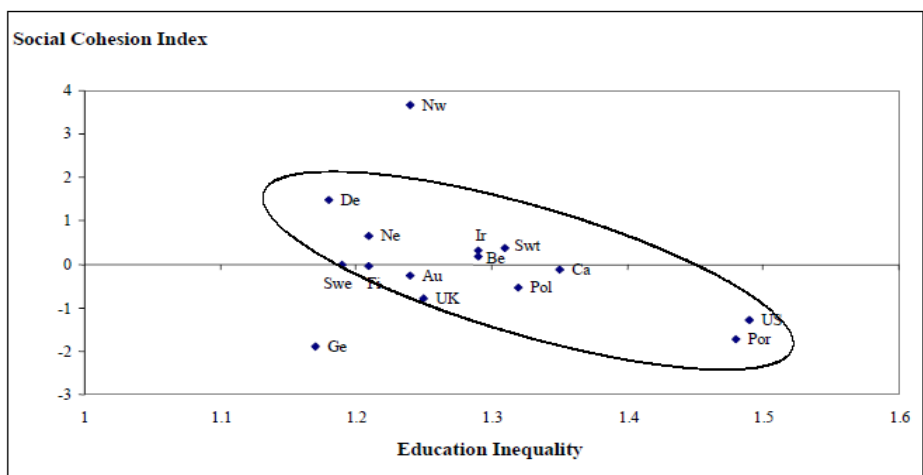
- Better health (Taubman and Rosen, 1982; Feinstein et al, 2003)
- Reduced propensity to crime (Behrman and Stacey, 1996)
- Reduced risk of teenage pregnancy and drug abuse (Bynner and Parsons, 1998)
- Increased social capital (trust, civic association and political engagement (Putnam, 2000))

### **The Effects of Education Inequality at the Macro Level**

A wider distribution of skills amongst adults (measured through IALS tests) are associated in cross-national analyses with higher levels of income inequality (Green, Preston and Janmaat, 2006) which are, in turn, associated with numerous adverse social outcomes (Wilkinson 2009).



Research (Green, Preston and Janmaat, 2006) also suggests a strong association across countries between inequality of adult skills and a composite measure for social cohesion (based on values for ‘trust’, ‘civic cooperation and ‘homicide’ (inversely) from the World Values Survey. The relationship holds independently of income inequality.



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