

What prospects for mobility in the UK? A cross-national study of educational inequalities and their implications for future education and earnings mobility.

In partnership with the Russell Sage Foundation and the Pew Economic Mobility Project

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Introduction

This summary presents the key findings from the latest and most comprehensive multi-country study of educational inequalities and their implications for education and economic mobility. The study compares data from the UK and nine other countries. The research investigated how socioeconomic advantage in the UK (and in England) as measured by parents' education, is transmitted from one generation to the next over the life-course – comparing the strength of this relationship with that observed for other nations covered in the study.¹

This summary is the latest of a series of research reports on the UK's social mobility levels published by the Sutton Trust. The first of these reports, produced in 2005, catapulted the issue of social mobility into the mainstream public debate in Britain.²

For this latest programme of research, the Sutton Trust partnered with the US based Russell Sage Foundation, the central funder of the Cross-National Research on Intergenerational Transmission of Advantage (CRITA), and the US based Pew Economic Mobility Project.

The Trust's main interest was how the mobility levels for the UK (or England) compared with those for other nations covered in the study.

Importantly this latest raft of studies gauges the prospects of today's generation of children, providing an indication of mobility trends in later life. In particular education mobility levels signal the future levels of social mobility that current children and young adults are likely to experience as adults, given the strong and persistent link between earlier educational achievement and future life prospects and earnings.

Sixteen studies were conducted that looked at ways in which mobility-relevant child outcomes – such as the child's educational attainment, economic status, and health – vary with family background. The researchers also investigated these outcomes for children at different ages, to better understand when a person's mobility is most influenced within their life course.

The study considers and compares mobility trends across ten countries: England (and the UK), Germany, Australia, Canada, the USA, France, Sweden, Denmark, Finland and Italy. The data is

¹ Study authors decided to use parents' education as a measure of socio-economic status because it is highly correlated with income and is comparable for all the countries investigated.

² See: Intergenerational Mobility in Europe and North America, http://www.suttontrust.com/reports/IntergenerationalMobility.pdf; Recent Changes in Intergenerational Mobility in the UK, http://www.suttontrust.com/reports/summary.pdf; Social Mobility Summit report, http://www.suttontrust.com/reports/academic_papers_report.pdf; Education Mobility in England - The link between the education levels of parents and the educational outcomes of teenagers, http://www.suttontrust.com/research/education-mobility-in-england/

based mostly on various national cohort studies, covering in total the outcomes for 100,000s of children and young adults in the ten countries.

One of the main motivations for the study was to determine mobility levels for those generations born after the rise in economic inequality witnessed in many developed countries. The concern is that higher inequality will have the long-run effect of reducing equality of opportunity and intergenerational mobility, as those with higher earnings are able to invest ever greater resources to ensure their offspring maintain their advantage in society.

A related question is what factors might be driving lower or higher mobility in different countries, given the differences that are observed.

Below are select key findings from the CRITA initiative that relate to the UK in particular. This summary is accompanied by a more detailed report produced for the Sutton Trust by Professor John Ermisch, one of the main authors of the CRITA study.

A complete and detailed analysis of the CRITA studies will be published in a forthcoming book from the Russell Sage Foundation, *From Parents to Children: The Intergenerational Transmission of Advantage*, covering topics ranging from cross-country differences in the impact of parental advantage to disparities in mobility outcomes by age and potential policy interventions.

Key Findings

Finding 1: Gaps in school readiness in England between less advantaged children and their more advantaged counterparts are larger than those in similar nations such as Canada and Australia, but smaller than those in the United States.

The study found that in all countries family background begins affecting children early in life. The disparities in children's outcomes by family background occur as early as they can first be measured. They exist for both cognitive and socio-behavioral outcomes and are usually larger for the former. In none of the countries investigated did high- and low-socioeconomic children start out equally prepared for schooling in terms of cognitive abilities and social behaviour.

Figure 1 focuses on the Anglophone countries to show differences in average vocabulary scores by parents' education at age five. The percentile scores show where children from different backgrounds are ranked in the tests when the scores are ranked from 1 to 100. High-educated parents are defined as those with degree level qualifications; mid-educated parents are those with some school qualifications but who have not gone on to higher education; low-educated parents are those with no qualifications leaving school. The data come from the latest cohorts of children from each country, with those in the UK taken for children in the Millennium cohort study.

As the figure 1 shows, in England, children with highly-educated parents were ranked in the 67th percentile on average, compared with children with low-educated parents who were ranked in the 29th percentile. The gap between the least and most advantaged children (38 percentage points) is significantly larger than in Canada or Australia (26 percentage points and 33 percentage points respectively), but less than that observed in the United States (46 percentage points). Previous research published by the Trust showed that children from low income homes are over a year behind children from high income homes at the start of schooling in the UK.³

The study finds that gaps in social and behavioral development are markedly smaller than in cognitive outcomes, with Canada exhibiting the smallest gaps. The largest disparity in sociobehavioural outcomes by parents' socio-economic status (SES) is in the UK, and it is the greater level of behavioural problems of low-SES children in the UK that is responsible for this finding, although some caution is in order because socio-behavioral outcomes are less comparable across countries than cognitive ones.

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³ See: http://www.suttontrust.com/research/low-income-and-early-cognitive-development-in-the-uk/

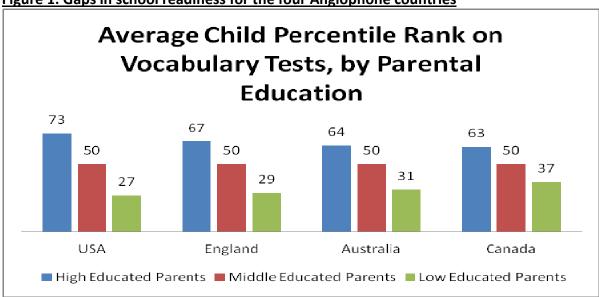


Figure 1: Gaps in school readiness for the four Anglophone countries

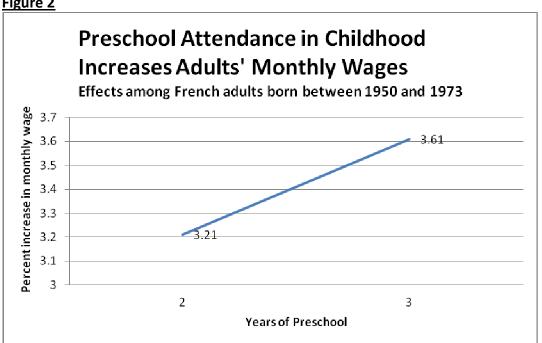
Source: EMP analysis of data from Chapter Four (Bruce Bradbury, Miles Corak, Jane Waldfogel, and Elizabeth Washbrook): "Inequality during the Early Years: Child Outcomes and Readiness to Learn in Australia, Canada, United Kingdom and United States" in *From Parents to Children: The Intergenerational Transmission of Advantage* **Note:** Scores were standardized so that comparisons could be made across countries where children with middle educated parents were considered to be average. The scores were then converted from standard deviation differences to percentiles using a z table.

Finding 2: Formal preschool education can have lasting effects in reducing the educational and economic disparities between high and low income children

Even in countries like France and Denmark that have universal early childhood education, this policy intervention weakens but does not erase the association of parental status with child outcomes.

One of the most powerful case studies conducted as part of the CRITA project assessed preschool's impact on children's subsequent educational and economic outcomes, focusing on the increase in preschool enrollment that occurred between the 1960s and 1980s in France. Figure 2 shows that positive benefits from early childhood education can last into adulthood: having attended preschool for two and three years rather than one year increased participants' monthly wages by 3.2 percent and 3.6 percent respectively.





Source: Figure created with data from Chapter Seven (Christelle Dumas and Arnaud Lefranc): "Early Schooling and Later Outcomes: Evidence from Pre-School Extension in France" in From Parents to Children: The Intergenerational Transmission of Advantage

Finding 3: Disparities in early child outcomes persist into adolescence, with comparatively large attainment gaps observed in England.

The evidence demonstrates that average differences in measurable child outcomes early on continue throughout children's lives up to university age and likely beyond.

Figure 3 compares either school achievement or cognitive test scores of adolescents born to parents with different levels of education. The data is based on teenagers in England born in 1989/90. Achievement is defined as the difference between the percentage of children in the top quartile of school or test score results and the percentage in the bottom quartile. The gap in achievement is the difference between children of parents with high or low education relative to those with mid-educated parents.

The performance of adolescents with high-educated parents (the green bar) and low-educated parents (the purple bar) is compared to adolescents of mid-educated parents (the x-axis baseline).

As before, high-educated parents are defined as those with degree level qualifications; mideducated parents are those with some school qualifications but who have not gone on to higher education; low-educated parents are those with no qualifications leaving school. Mideducated parents are those with some school qualifications but who have not gone on to higher education.

For instance, in England, adolescents with high-educated parents have an achievement advantage of 42 percentage points (the green bar) compared to those with mid-educated parents, and those with low-educated parents have an achievement disadvantage (the purple bar) of 32 percentage points.⁴

The combined magnitude of the green and purple bars represents the total achievement gap between adolescents with high and low-educated parents; in England, 74 percentage points.

The figure below shows that Canada and Australia have the smallest disparities between adolescents with high and low-educated parents (52 percentage points and 34 percentage points respectively), while Germany, the United States and England (87 percentage points, 85 percentage points and 74 percentage points respectively) have the largest.

An adolescent's advantage from having high-educated parents is largest in the United States, England, and Sweden (the higher the green bar, the greater the advantage). An adolescent's disadvantage from having low-educated parents is largest in Germany, the United States, and England (the lower the purple bar, the greater the disadvantage).

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⁴ In England 44% of children from high-educated parents were in the top quartile, and 10% in the bottom quartile; 9% of children from low-educated parents were in the top quartile, and 49% in the bottom quartile; 19% of children from mid-educated parents were in the top quartile, and 27% in bottom quartile.

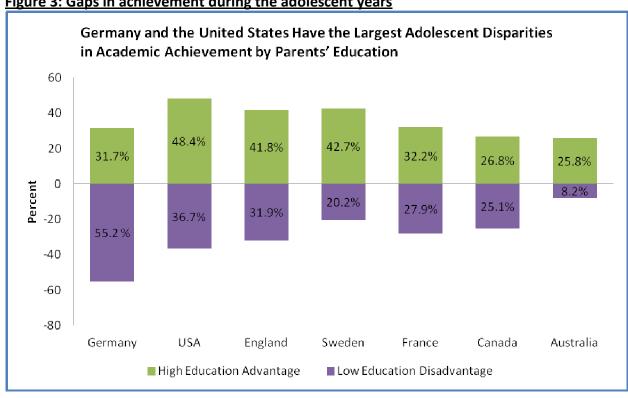


Figure 3: Gaps in achievement during the adolescent years

Source: Figure created with data from multiple chapters, as summarized in Chapter 19 (John Ermisch, Markus Jäntti, Timothy Smeeding and James A. Wilson): "What Did We Learn?" in From Parents to Children: The Intergenerational Transmission of Advantage

Finding 4: Unlike other countries, the achievement gap between less advantaged English children and their more advantaged counterparts widens between the ages of eleven (the end of primary school) and sixteen (end of compulsory secondary school).

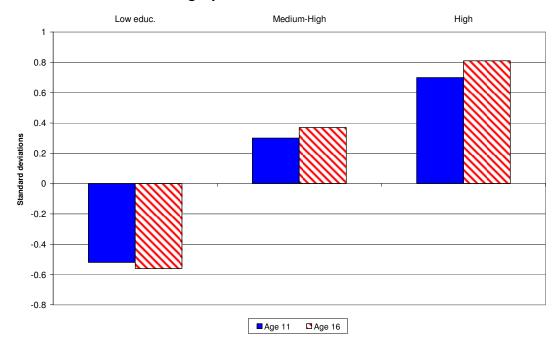
There is robust evidence from three different data sources that gaps in achievement for children with different parents' socio-economic status (SES) in the UK become substantially bigger between the ages of eleven (the end of primary school) and sixteen (end of compulsory secondary school). From the data gathered in this study, there is no evidence of this widening in achievement at this life stage in other countries.

Figure 4 illustrates the widening gaps in school achievements by parental education by examining Key Stage (KS) test results at KS2 (age eleven) and KS4 (age sixteen). It compares average overall KS scores between parents with different levels of education. A medium level of education is defined as having A-level, GCSE or 'level 1' qualifications (about one-half of parents in England), taking the higher of the two parents' education qualifications. Parents with a low education are defined as those with no qualifications or below 'level 1' qualifications. Parents with a 'medium-high' education have a higher education qualification below degree level, while those defined as high education have a degree level qualification or higher. The gaps are clearly bigger at sixteen (striped bars) than at eleven (solid bars).

The widening gap after eleven is found to be mainly related to the positive association between the quality of secondary school that children attend and their parents' socio-economic status, SES, which is stronger than the association between primary school quality and parents' SES.

In other words, the widening of the parental education gap in pupil performance after primary school appears to be related to the sorting of children into secondary schools. Better educated parents have their children in better quality schools. A 'better school' is likely to be one with better teachers and other educational resources, and positive peer effects from better students.

<u>Figure 4</u>: Gaps in achievements at Key Stage 2 results (age eleven) and at Key Stage 4 results (age sixteen). Difference in Results in Standard Deviations Relative to Children from the Medium Parental Education Category



Finding 5: None of the countries included in the CRITA study provided evidence of reductions in childhood disparities by parental status as children age.

Differences in mobility-relevant children's outcomes according to family background are established at very early ages and do not decrease over time. The CRITA study demonstrates the need to develop more effective mechanisms to narrow socioeconomic gaps and better realize the equality of opportunity that is so fundamental to economic mobility — especially in the United States where the relationship between parental socioeconomic advantage and child outcomes is the largest.

Conclusions

Early and enduring mobility gaps

The findings from the CRITA initiative demonstrate that across countries disparities in mobility outcomes by family background are set early in life and persist into adolescence and beyond. Even by age 5, children whose parents had low levels of education had markedly worse outcomes than children whose parents had high levels of education.

Policy interventions, such as support for universal early childhood education, hold promise for improving equality of opportunity. However, once socioeconomic gaps are established, the evidence from these studies suggests they do not decrease as children age. In no country did the authors find a reduction in mobility differences by family background over time, highlighting the need for more effective avenues to reduce the connection between parental status and subsequent wellbeing.

Environment matters

An important conclusion from the studies is that mobility levels are influenced by the particular environments in different countries - whether cultural, economic, educational, or in other aspects. The relatively high attainment gaps, and low mobility, observed in England compared with other countries shows that mobility levels can not be driven solely by the transmission of genetic endowments from parents to children. If this was the case, we would not be able to explain the overwhelming weight of evidence pointing to consistent and significant international differences in mobility.

In fact the CRITA study finds that over one-half of the intergenerational child-parent correlations in income and education remain unaccounted for by cognitive skills and personality traits acquired at birth or in childhood, pointing to important influences of aspects of the environment.

Inequality and immobility

The findings suggest that concerns that higher inequality might reduce equality of opportunity and intergenerational mobility appear to be well founded. Countries with large gaps between the rich and poor such as the US and UK look set to remain the least mobile in the future. Income inequality and educational inequality can feed off each other in cycle of ever decreasing mobility, as those with higher earnings are able to invest ever greater resources into education of their offspring to maintain their advantage in society.

An important caveat to the observed link between income inequality and social immobility is that there are countries that appear to buck this overall trend. Canada and Australia for example has similar levels of income inequality as the UK, yet exhibits higher rates of mobility. Something else in Canadian or Australian society appears to enable children from all

backgrounds to fulfil their potential to a greater degree. The Sutton Trust is currently organising an international seminar to examine further the mobility differences between the four Anglophone countries, the UK, US, Canada and Australia.

Widening achievement gap at age 11

A defining characteristic of England's low mobility record is an achievement gap between less advantaged children and their more advantaged counterparts that widens between the ages of eleven (the end of primary school) and sixteen (end of compulsory secondary school). There is no evidence of this widening in other countries.

This appears to be driven by the social stratification that exists among England's secondary schools - one of the key concerns of the Sutton Trust. A range of previous studies published by the Trust and others has documented the reasons for this - whether due to the social selective admissions practices within the state sector, or the divide that persists between the fee-paying and maintained school sectors In the UK.

It has also been shown that poorer pupils perform worse in their examinations in schools with higher numbers of poorer pupils when compared with similar pupils in schools with more advantaged intakes. Addressing the social stratification in secondary schools remains one of the key challenges for improving social mobility in England, and the UK more broadly.