



**UCD GEARY INSTITUTE  
DISCUSSION PAPER SERIES**

***The Role of Social Institutions in Inter-  
Generational Mobility***

***Brian Nolan,<sup>a</sup> Gosta Esping-Andersen,<sup>b</sup> Christopher T. Whelan,<sup>c</sup>***

***Bertrand Maitre,<sup>d</sup> Sander Wagner<sup>b</sup>***

<sup>a</sup> School of Applied Social Science, University College Dublin

<sup>b</sup> Universitat Pompeu Fabre, Barcelona

<sup>c</sup> School of Sociology, University College Dublin

<sup>d</sup> The Economic and Social Research Institute, Dublin

***Revised February 2010***

# ***The Role of Social Institutions in Inter-Generational Mobility***

## ***1. Introduction***

The primary goal of inter-generational mobility (IGM) research has always been to explain how and why social origins influence peoples' life chances. This has naturally placed family attributes at centre stage. But the role of social institutions, most notably education systems, as a mediating factor has also been central to IGM theory. Indeed, generations of stratification research were premised on the core assumption that equalizing access to education would weaken the impact of social origins. In theory, policies, institutions, as well as macro-economic and historical context, have been identified as crucial in shaping patterns of social mobility (D'Addio, 2007). But apart from education, empirical research has contributed little concrete evidence on how this occurs.

Since institutions are said to mediate the link between origins and destination, we first need to be clear about what precisely they are supposed to mediate. In other words, we need to begin with a firm identification of the most salient social origin mechanisms. Here we can benefit from two major advances in recent empirical research: firstly, the effort to identify the relative importance of genes and, secondly, the identification of early childhood conditions as fundamental for subsequent achievements.

We are beginning to understand that a sharp distinction between nature and nurture can be misleading, considering that there are clear interaction effects between the two. On the basis of Swedish register data, Björklund, Jäntti and Solon (2005) manage to tease out nature and nurture effects by examining children raised by biological parents, adoptive parents, or one biological parent with or without a stepparent, as well as information on the biological parents even when they are not the rearing parents. Their results suggest that both pre-birth (including genetic) and post-birth environmental factors play important roles in influencing subsequent socioeconomic status. Jencks and Tach (2006) interpret these results as meaning that genes account for about two-fifths of the intergenerational correlation in earnings in Sweden, and speculate that the figure might perhaps be about the same in the USA (though the data there are far less satisfactory). However, as they stress, "genes" include not only "ability" but also health,

beauty and skin colour, and genetic makeup can affect one's environment in various ways: "because our genes affect both the way others treat us and the choices we make for ourselves, we cannot estimate genes' impact "holding the environment constant." (op.cit. p. 34). Liu and Zeng (2009) compare adopted and biological children in an attempt to identify the genetic effect with US data (PSID). Their findings give support to Jencks and Tach's view, suggesting that biological factors account for roughly half of the father-child earnings correlation.

Genetics aside, probably the most significant message from recent research has been the importance of early childhood conditions, both for short-, medium- and long-run outcomes. Both cognitive skills and family finances matter for 'getting ahead', but so do non-cognitive abilities, social skills, cultural resources, motivation and, more generally, the familial 'learning milieu'. It has become increasingly clear that cognitive and non-cognitive skills depend hugely on family endowments that are not strictly financial or genetic. Some studies have tried to capture such endowments by including direct information on cultural assets such as books and cultural consumption, and these have been shown to be significantly associated with later outcomes. However, to our knowledge no one has been able to establish direct causal links in this regard. Anyhow, as we shall discuss below, contemporary research has in this respect been quite successful in identifying key policies and institutions, in particular high quality early childhood programmes that matter for both cognitive and non-cognitive outcomes (Currie, 2001; Carneiro and Heckman, 2003; Karoly et.al., 2005; Waldfogel, 2006).

We can now say with some certainty that one possible institutional influence, namely the local neighborhood or community, matters far less than family attributes as far as IGM is concerned. Solon, Duncan and Page (2000) used the cluster sampling design of the Panel Study of Income Dynamics to estimate both sibling and neighborhood correlations of years of schooling, and found sibling correlations of around 0.5, whereas their neighborhood estimates were as low as 0.1; Raaum, Salvanes and Sorensen (2003) used Norwegian census data and concluded likewise that neighborhood correlations are small compared to sibling correlations, be it for educational attainment or for long-run earnings. Without reviewing the wide range of studies involved (on which see, for example, Esping-Andersen, 2004a, 2004b, D'Addio, 2007), for present purposes the key

point is that they suggest that causal mechanisms related to the family are critical in IGM, and it is against that background that the role of social institutions must be considered.<sup>i</sup>

Over the past decade the role of institutions has undergone two major revisions. Firstly, mounting evidence suggests that differences in the design of education systems seem to matter much less than had been thought. Secondly, researchers have begun to shift their focus to possible welfare state effects. If income inequalities affect how parents can invest in their children, welfare state redistribution ought to equalize children's life chances. One would, in particular, expect that effective poverty reduction should boost the mobility chances of the most disadvantaged. Differences in welfare state redistribution are well-documented, but the extent to which they influence IGM – either directly or indirectly – is much less known. The key issue, of course, has to do with the salience of family income *per se* for child outcomes. Susan Mayer (1997), for example, argues persuasively that the income-effect is possibly less important than are those parental characteristics (such as low skills, poor health, or deviance) which, in the first place, may also explain why they happen to be poor. From such a perspective, welfare state redistribution may not have much an effect on mobility chances.

The findings of James Heckman and his associates regarding the centrality of early childhood stimulation provide both clues to why education systems matter less than was assumed, and suggest also an alternative source of potential welfare state effects (Heckman and Lochner, 2000; Carneiro and Heckman (2003). Their 'learning-begets-learning' model stresses the fundamental causal importance of conditions in the pre-school years, especially those related to behavioural and cognitive development. Here disadvantage stems importantly from parental traits (such as poor cognitive and non-cognitive skills). Their analyses suggest that high-quality pre-school programmes can be extraordinarily effective in closing the achievement gap for such disadvantaged children. This view finds additional support from the very few existing attempts to examine how the intensity of parenting (in terms of time spent with the children) influences later child outcomes (for a discussion, see Esping-Andersen, 2009, Chapter 4).

In this chapter we aim to identify how welfare state institutions more broadly might affect patterns of inter-generational mobility, particularly emphasising their role in alleviating the adverse effects of poverty and disadvantage.

## **2. Linking Institutions and Outcomes**

Over the past decades, substantial advances have been made in understanding how differences in welfare state institutions, spanning education and training, the labour market, healthcare, taxation and social protection, underpin the substantial variation across rich countries in, for example, income inequality and poverty levels and trends.<sup>ii</sup> Welfare State arrangements, whether analysed on a country-by-country basis or in terms of distinctive welfare “regimes”, have been shown to be central. This does not mean that societies can insulate themselves from external forces, nor that implications for policy can be easily drawn, but it does provide a more secure foundation for thinking about institutions and policies.

Deriving hypotheses about underlying causal processes and testing them empirically in a particular national setting has yielded important insights. But in order to tease out welfare state effects we need, almost by definition, to pursue research that compares across countries and time. To exemplify, it is now firmly established that income inequality is greater in the USA than in the UK, and in both than in the Scandinavian countries. Such findings have stimulated intensive research on the impact of government redistribution, labour market institutions, and also on the role of demographic characteristics such as household structures. We also know that income inequality in the USA and the UK has risen more sharply over the past decades than in other OECD countries, and that these increases were concentrated in specific sub-periods. This suggests, in turn, that rising inequality is not simply the inevitable consequence of skill-biased technological change. Hence, research has turned its attention to how technological change actually influences earnings and household incomes in different institutional settings.

In order to identify welfare state effects on IGM, matters are additionally complicated by the multi-dimensional nature of social mobility. Different research traditions emphasize different kinds of mobility. Social mobility may be studied and assessed in terms of, *inter alia*,

- Individual earnings
- Household Income
- Poverty and Disadvantage

- Wealth
- Social class
- Education

Some of these dimensions can be examined as final outcomes but also as critical intervening variables in the intergenerational transmission process. Education is an outcome in its own right, but also a predictor of earnings or occupational status; and individual earnings influence also household income and wealth. We should not expect *a priori* that institutions influence such outcomes in an identical fashion, or that settings that are more conducive to mobility in one domain – for example education – will necessarily carry over into another – such as income.

### **3. Intergenerational Mobility**

#### *Earnings*

There have by now been extensive efforts to estimate intergenerational earnings elasticities between fathers and sons in a range of countries. Comparisons have been bedevilled by subtle differences in data and methods, but Björklund and Jäntti's (2009) "preferred" estimates for eleven countries may be taken as summarising the current consensus. In their comparison, Denmark emerges as the most mobile nation with a value below 0.2, followed by Sweden, Norway, Germany and Australia (above 0.2), with Canada and the UK slightly higher, and France, Italy and the USA representing the least mobile cases (with values over 0.4). Strong father-son earnings correlations tend to be found in countries with greater income inequality, but the relationship is not straightforward considering that the elasticities for Germany, Australia and Canada hardly differ from those for Sweden and Norway, and that France and Italy display elasticities that are nearly as high as in the USA. Here, as the authors emphasize, we must note that the estimated confidence intervals around these estimates tend to be very wide, especially those based on survey data: so the figure for Australia is as low as the Nordic ones but its confidence interval overlaps with those of Italy and the USA.<sup>iii</sup> This ranking differs in some respects from that presented in Corak (2006) and in OECD (2009), mainly because Björklund and Jäntti's lower elasticities for Germany and the UK

derive from more recent studies. OECD (2009) also includes an estimate for Spain of about 0.3.

There are far fewer studies of inter-generational earnings transmission for women than for men. Elasticities with respect to father's earnings generally seem to be somewhat lower for daughters' than sons' earnings (see for example the discussion in Hirvonen, 2006). Raum *et al* (2007) find that the elasticity of own earnings with respect to (total) parental earnings is lower for women than men in Scandinavian countries, the UK and the USA. However, they note a marked difference between married and single women in the UK and the USA, which they attribute to partners' joint labour supply decisions (to which we return in discussing mobility in family income).

Such comparisons provide only a summary measure for all parent-offspring combinations, and this may yield a distorted view of reality if mobility patterns differ across the income distribution. This can have important implications from a welfare state perspective, in particular if (as some studies show) mobility from the bottom of the income distribution is significantly greater in countries with highly redistributive welfare states. While some national studies report higher mobility in the middle of the distribution than in the tails, there is some inconsistency across studies. Couch and Lillard (2004) report lower mobility at the top and bottom of the earnings distribution for Germany and the USA. Bratsberg *et al* (2007) show that in Denmark, Finland and Norway the relationship between earnings of sons and fathers is highly nonlinear, with sons growing up in the poorest households having the same adult earnings prospects as those in moderately poor households, but with an increasingly positive effect of father's earnings in middle and upper segments. In the US and the UK, on the other hand, the relationship is much closer to being linear. Cross-country comparisons of intergenerational earnings elasticities may thus be misleading with respect to transmission mechanisms in the central parts of the earnings distribution and uninformative in the tails. Jäntti *et al* (2006) present quintile transition matrices which show quite substantial upward mobility from the bottom quintile in the Scandinavian countries while, in contrast, the UK and especially the US exhibit remarkably low mobility from the bottom. Another striking feature of their results is the very similar degree of retention within the top quintile across all countries. If these patterns were

indeed related to welfare state redistribution, the upshot is that the Nordic welfare states concentrate their efforts at the bottom rather than across the entire income distribution.

The findings so far discussed tell us nothing about whether earnings mobility has increased or decreased over time. Estimating trends over time requires data that are very difficult to obtain. A few such dynamic studies have been attempted for individual countries, but they generally do not show any clear trends. Research focused on the USA has produced diverging conclusions. Mayer and Lopoo (2005) found that social mobility rose for cohorts born during the 1950s and 1960s, though the rise was not statistically significant; Lee and Solon (2006), also using the PSID, found no major changes in mobility for the cohorts born between 1952 and 1975. Aaronson and Mazumder (2008) found a fall in intergenerational mobility among cohorts born after the mid-1950s. For the UK, analysis relating children's earnings to (total) parental income in the two cohort studies that started in 1958 and 1970 concluded that IGM has fallen over time (Blanden *et al* ,2004). But this has been questioned by Erikson and Goldthorpe (2007), who point to possible measurement error in parental income in one cohort versus the other. Using the BHPS, Ermisch and Nicoletti (2007) studied intergenerational earnings mobility for two cohorts of sons born between 1950 and 1972 on the basis of predicted earnings for the father's (using education, age and occupation when the child was 14). They found no major changes across cohorts from 1950 to 1960, but a negative trend in mobility between 1961 and 1972 – which would appear consistent with Blanden *et al.*'s conclusions.

For France, LeFranc and Trannoy (2005) report that intergenerational mobility has been very stable across cohorts. Fortin and Lefebvre document similar stability for Canada from the mid-1980s to the mid-1990s, and Osterbacka (2004) reports no clear trend for Finland. Leigh (2007) for Australia, using predicted father's earnings, finds no evidence that intergenerational earnings mobility has either risen or fallen over time, using data from four surveys back as far as 1965. Bratberg, Nilsen and Vaage (2007) use quantile regressions and report that in Norway intergenerational earnings mobility increased from the early 1980s to the mid-1990s for both sons and daughters. For Finland, Pekkarinen *et al* (2006) and Pekkala and Lucas (2007) also find increasing mobility.



All in all, the evidence on inter-generational earnings mobility across nations and time would appear too ambiguous for any strong hypotheses regarding welfare state effects. Jantti et.al.'s (2006) cross-section comparison might be interpreted in terms of welfare state redistributive effects: it would appear that the Nordic countries have been comparatively effective in minimizing any mobility disadvantage associated with low-earning fathers (although they have done little to diminish the advantages of being rich). Yet, the same evidence could with equal plausibility be ascribed to the highly compressed wage structure within the Nordic countries -- which in particular benefits low-wage workers (Esping-Andersen, 2009).

### *Income*

Fathers' earnings is only one, albeit often dominant, component of families' total income. If mobility depends on how much parents can invest in their children's life chances, it would appear more relevant to focus on total family income. Only a small number of national studies have been able to examine family income across two generations. Chadwick and Solon (2002), using the PSID data, find that intergenerational elasticities based on total family income are higher (i.e, there is less mobility) than those based solely on earnings. This could be the product of a number of factors: family income can be affected also by capital income; variations in maternal labour supply and earnings potential will clearly affect the distribution of family income; and since assortative mating is especially pronounced within high educated couples, it is also likely to augment income inequalities among families. Ermisch et al (2006), for example, find that in the UK, on average, 40-50% of the covariance between parents' and own permanent family income can be attributed to the person to whom one is married. (See also Harding et al 2005, Hirvonen, 2006, Holmlund, 2006).

Comparative studies based on family income are even rarer, but Raum et al (2007) find that the intergenerational transmission of family earnings, like individual earnings, is significantly stronger in the USA than in the Scandinavian countries, with the UK somewhere between. Strikingly, they find that for married women in the USA and UK, but not the Scandinavian countries, the elasticity of their earnings with respect to parents' earnings is much lower than that of family earnings. This is because women

marrying rich men respond by working fewer hours or by withdrawing from the labour market, and this cross-wage labour supply response outweighs the fact that these women also tend to have high earnings potential themselves.

There are few studies indeed that focus on mobility changes over time in terms of overall family income. One such is Hertz (2007), which using the PSID data, fails to find any meaningful trend in the intergenerational correlation of family income in USA over the last 25 years. One can nonetheless point to trends that are likely to have had an impact, one of the most important being the increase in married women's labour force participation. The impact on intergenerational transmission of family income depends on whether the increase has been more pronounced for low-earning than high-earning women. If it has been greater among highly-educated women (especially if accompanied by assortative mating), the outcome is likely to be less mobility in terms of family income. The extent to which this has actually occurred across countries is not yet clear.

The literature on inter-generational income mobility provides precious few clues as to any welfare state effects. Perhaps the most promising line of reasoning would be indirect, namely how social policies and, in particular, parental leave and child care influence maternal labour supply. In the Nordic countries mothers' labour supply varies relatively little across levels of education. In contrast, in many countries low educated women are far less likely to work, as are women married to rich husbands (Esping-Andersen, 2009). The difficulty of pinning down any welfare state effects has much to do with the period-specific dual causality which, by definition, must influence parent-child income correlations. The first chain of causality has to do with conditions in the period of childhood. To the extent that parental resources dictate child investments, much inequality in the childhood period should translate into stronger correlations and less mobility. The second chain of causality derives from the prevailing conditions in the period when the child has become adult. It may be that the originally unequal distribution of child investments will have minor consequences for mobility if there is great earnings compression in the adult period. Put differently, a very unequal start may not necessarily produce a similarly unequal end if, for example, institutions change.

This said, a promising avenue for future research would be to compare -- in a quasi-experimental way -- across sets of countries which share similar conditions (say,

the shape of the income distribution) in the childhood period but which also differ sharply in terms of policy or institutional change that ought to affect earnings or income attainment in the later, adult period.

### *Poverty and disadvantage*

There is substantial evidence from country-specific studies that mobility is particularly limited towards the bottom of the socio-economic hierarchy, i.e. that poverty is inherited across generations. Examples from research in the USA include Wilson (1987), Gottschalk *et al* (1994), Duncan and Brooks-Gunn (1997), Duncan *et al* (1998), and Corcoran (2001); for Canada see Corak (2001). Recent UK studies include Sigle-Rushton (2004) and Blanden and Gibbons (2006). And similar studies that trace current poverty or disadvantage to conditions in childhood exist for many other countries. However, this extensive literature does not provide a ready basis for assessing how the inter-generational transmission of poverty or disadvantage varies across countries. The same is true of welfare reciprocity (see for example Corak *et al* (2004) for Sweden and Canada; Page (2004) for USA). But, as the OECD (2009) notes, available research does not allow us to compare directly the strength of this transmission across countries.

Similarly, the existing literature has little to say about whether there has been significant change over time in the probability of escaping from poverty from one generation to the next. Nevertheless, recent research on the consequences of growing up in poverty provides important pointers regarding the underlying mechanisms that shape mobility and, especially, the lack thereof. Studies that have focused on the USA (where, of course, child poverty is especially widespread) show that the inheritance of poverty is connected with substantially less schooling (on average, poor children will have two years less schooling than non-poor children), poor health, and crime (Mayer, 1997; Duncan and Brooks-Gunn, 1997). Similar, if somewhat less dramatic, effects are documented for the UK (Gregg *et al.*, 1999) and for France (Maurin, 2002; CERC, 2004). But again, the key question is whether such adverse consequences can be ascribed to a low-income effect or, possibly, to unobserved parent or child characteristics that may explain poverty to begin with.

In this respect, Gregg et.al's (1997) study is important since they control for the child's abilities (via cognitive test scores at age 7), and still uncover strong poverty effects. In terms of parental characteristics, the impact of lone motherhood has been subject to considerable scrutiny, especially in US research. Most studies demonstrate strong negative effects of lone motherhood on child outcomes, but they also suggest that the main reason has to do with poor economic conditions (McLanahan and Sandefur, 1994; Biblarz and Raftery, 1999, Gregg et al., 1999).

As noted, comparative analyses of poverty effects on mobility are few and far between. Esping-Andersen and Wagner (forthcoming) use the 2005 EU-SILC inter-generational module to estimate the impact of economic hardship during childhood on both educational attainment and on adult income (controlling also for sibling size, immigrant status, lone motherhood, and parents' education) across a number of EU countries (Denmark, Norway, France, Italy, Spain, and the UK). The study concludes that the effects are indirect rather than direct. Economic hardship in childhood has no direct effects on adult income in any of the countries, but it has powerful indirect effects via the children's final educational attainment. For our purposes, of special interest is the comparison across post-war cohorts (born, respectively, 1945-57; 1958-67; and 1968-77). The main results are that the negative (indirect) effect of poverty disappears among the youngest cohorts in both Denmark and Norway, while it remains persistent (and even sharpens) in France, Italy, and Spain. In the UK, the effect persists although it becomes slightly weaker within the youngest cohort. Since these findings line up nicely with the national contrasts found in Jantti et.al.'s (2006) study, the case in favour of welfare state effects would appear even clearer: the Scandinavian countries seem to be doing something that helps minimize the adverse consequences of economic want in childhood.

### *Wealth*

Wealth is a key indicator of long-term command over resources and socio-economic position, and the transfer of wealth across generations has been of long-standing interest due to its potential role in the intergenerational transmission of advantage and disadvantage. However, researching wealth transmission is very demanding in data terms, so available studies mostly focus on a single country. Robust

comparisons of the distribution of wealth across countries or over time face severe difficulties in terms of harmonization of concepts and data; the data being assembled by the Luxembourg Wealth Study represent a major step forward in terms of cross-sectional comparisons (see Jäntti, Sierminska and Smeeding, 2008; and OECD 2009, Chapter 10), but there is still considerable uncertainty about country rankings on wealth inequality.

However, capturing intergenerational persistence in wealth, and measuring direct transmission via gifts *inter vivos* and bequests, is particularly demanding in terms of data. Harbury and Hitchens (1979) report an intergenerational elasticity of inheritance between fathers of very rich children and their children in the USA of about 0.50; Menchik (1979) used probate records for high-income persons in the USA to compare estates at death of parents and offspring, and reported even higher elasticities. Charles and Hurst (2002) used special wealth modules in the PSID to compare wealth across generations, and found an (age-adjusted) elasticity of 0.37, considerably lower than other studies, but this is before the offspring had received bequests. Klevmarken (2004) analysed Swedish Household Panel Survey data, and found that 34% had inherited or received a gift, which accounted for less than 20% of current wealth. Most bequest recipients were middle-aged, and bequests and gifts did not appear to produce much mobility in wealth over time for offspring. US studies using the Surveys of Consumer Finances suggest that both *inter vivos* transfers and bequests account for a substantial proportion of total wealth, but that like total wealth, this is heavily concentrated towards the top; persistence in wealth across generations appears to be most pronounced there. Outside the top, wealth transfers may play a particularly important role in home ownership. Once again, little robust evidence on cross-country differences in transmission patterns is available.

Clearly the direct transfer of wealth in the form of gifts or inheritance is only one element in the association between the wealth levels of parents and their children, and it is not easy to say precisely how great a contribution it makes. Inherited wealth and earnings capacity can reinforce each other – wealth may underpin better education, health and neighborhoods, as well as provide start-up capital for businesses (the family firm may be inherited directly) As Bowles and Gintis (2002) put it, it “seems likely that the intergenerational persistence of wealth reflects, at least in part, parent-offspring similarities in traits influencing wealth accumulation”. Bowles and Gintis (2002) suggest

that the intergenerational transmission of wealth accounts for about 30% of the intergenerational correlation in income in the USA, but this has been contested. While some studies have sought to capture how the distribution of wealth has been changing over time in particular countries (see for example Wolff, 2004, 2007), we are not aware of ones focused directly on measuring how the role of wealth in IGM has evolved.

### *Social Class*

Sociologists have always shown a keen interest in inter-generational mobility; indeed, it is widely regarded as a core issue within the discipline. But rather than focus on incomes, mobility has primarily been analyzed in terms of social class, occupational status, or prestige. A comparative perspective has been central to this literature. For decades, post-war sociological mobility research was guided by the assumption that socio-economic modernization should promote more social fluidity, i.e. less social inheritance, and also convergent patterns of IGM across countries. Erikson and Goldthorpe's (1992) landmark study concluded that there were small differences across 15 countries in the pattern and degree of social fluidity or relative mobility. They did, however, find greater mobility in Sweden, the only Scandinavian country included in their comparisons. They examined the impact of a number of 'modernization' indicators, including level of industrial development, economic and educational inequality, and political attributes on social fluidity. But, overall, they found no clear relationship between level of economic inequality and more open class structures.

The more recent comparative analyses in Breen (2004) and Breen and Jonsson (2005) report a trend towards convergence in class structures across countries and decreasing variation in rates of absolute mobility. In terms of relative mobility, they distinguish a group of more fluid countries (Israel, Sweden, Canada and Norway, Hungary and Poland) and a group with rigid patterns (including Germany, Ireland, Italy and France); the USA occupies an intermediate position. These findings seem to differ substantially from those of Erikson and Goldthorpe (1992). But the implications are somewhat muted by their conclusion that even quite substantial differences in fluidity have little impact on absolute mobility flows. They also find little evidence that variation

in fluidity between countries is systematically related to overall levels of income inequality or to GDP.

To put a modernization thesis properly to the test we obviously want to know whether social inheritance is weakening over time. The thrust of Erikson and Goldthorpe's "constant flux" was that mobility had not increased (except in Sweden, the only Nordic country included in the study) when measured in terms of social class membership. Breen (2004) and Breen and Jonsson (2005), on the basis of data for a wider range of countries, suggest that while absolute mobility has been substantial in all industrialised countries, relative mobility rates have remained rather stable over time. This suggests that changes in mobility patterns are almost exclusively driven by social structural change in general, and by changes in the occupational structure in particular. In other words, as far as class mobility is concerned, the case for a potential welfare state effect would appear rather minimal. Still, the case of Swedish exceptionalism does merit closer scrutiny. Erikson and Jonsson (1996) suggest that the declining significance of class origin in Sweden is primarily the product of educational equalization that began in the 1960s.

Indeed, there has been considerable debate about trends in specific countries. For example Goldthorpe and Mills (2004) find a u-turn pattern in the UK: the middle decades of the 20<sup>th</sup> Century produced steadily rising rates of upward absolute class mobility, but this began to level off from the 1970s onwards, with, if anything, a trend towards more downward mobility. For women, however, they find that total mobility rates changed less. This was due to two concomitant trends: on one hand, women experienced increasing upward mobility, especially into the salariat; on the other hand, this went together with decreasing overall downward mobility. Goldthorpe and Jackson (2007), using the two British cohort studies obtain similar results. Turning to relative rather than absolute mobility, they cannot reject the hypothesis that the pattern of social fluidity underlying the mobility experienced by members of the two cohorts was in fact the same from the earlier to the later cohort. Over Ireland's "Celtic Tiger" boom period, Whelan and Layte (2006) found evidence for a substantial upgrading of the class structure, increased levels of absolute mobility, and also greater social fluidity.

It is evident that trends and cross-national differences in class mobility are difficult to connect directly to the welfare state. One major problem we confront is that Sweden is basically the only representative of the advanced Nordic countries that has been intensively investigated. Following the argument of Eriksson and Jonsson (1996), it may be that very egalitarian educational systems, like in Sweden, can help sponsor more class mobility. The most likely logic here is indirect: that educational equalization diminishes the importance of social class background for human capital attainment which, in turn, implies a lower correlation between origins and occupational destiny.

Esping-Andersen and Wagner's (forthcoming) analyses, based on the EU-SILC intergenerational module, includes separate estimations of the impact of social class origins (adapting the Golthorpe class scheme).<sup>iv</sup> They find for both Denmark and Norway that the influence of class origins on adult (log) earnings disappears entirely for the two youngest cohorts of men *and* women (born, respectively, 1958-67 and 1968-77). But, they also find that the impact of class origin in both countries remains quite stable as far as educational attainment is concerned. Unfortunately, the SILC data for Sweden do not permit comparable analyses. In contrast, the Esping-Andersen and Wagner analyses suggest that the class origin effect has remained stable and significant in France, Italy, and in the UK -- in terms of educational attainment and also in terms of adult (log) earnings.

Another potential but, to our knowledge, unexplored link is to the role of the welfare state as employer. Service intensive welfare states, like the Nordic, employ almost a third of the entire labour force and, due to their strong female bias, account for almost half of all female employment. One potential indirect effect is therefore the welfare state's role in establishing the dual-earner family norm. Another indirect effect should be related to the occupational profile within public services. While welfare state jobs undoubtedly provide greater job security, their expansion is not automatically synonymous with occupational upgrading. A very large proportion of social service jobs are low-skilled.

### *Education*

Educational attainment is highly correlated across generations and has been recognised as a key mechanism in the transmission of socio-economic status from parents



to children in modern industrial societies. Parental education is a significant predictor of the level a child will attain, and education in turn is a key predictor of earnings and income, occupation and social class. The strength of intergenerational transmission of education also clearly varies across countries, as can be seen from studies comparing what survey respondents report to be their own and their parents' highest level of education attained. To be sure, despite the development of the ISCED classification for international comparisons, national differences in education systems can make it difficult to be sure one is comparing like with like. Results from the US and UK suggest intergenerational education elasticities between 0.20 and 0.45 (Dearden *et al.*, 1997; Mulligan, 1999). Hertz *et al.*'s (2007) estimates of the intergenerational schooling correlation for the USA and 12 Western European countries range from 0.30 in Denmark up to 0.54 in Italy, with the U.S. at 0.46 towards the high end of the spectrum, similar to Ireland and Switzerland. Finland, the Netherlands and Sweden are towards the lower end of the range, but Great Britain and Northern Ireland (estimated separately) are even lower. Shavit and Blossfeld's (1993) study of class effects on educational attainment concluded that Sweden deviated from other countries in terms of the constant flux.

Intergenerational influences can also be studied comparatively using the mathematics and literacy performance of students aged 15 in various countries from the PISA programme organised by the OECD. Analyzing the impact of numerous background characteristics on mathematics scores, the OECD (2009) concludes that parental education is by far the most important, although parental occupational status, household type, and migrant status and language all play a role. Based on simple bivariate comparisons, the negative impact of having a father with low education is strongest in the Czech Republic, Slovakia, Hungary, Germany and Turkey; in contrast, the negative effect is smallest in Finland, Iceland, Italy, Norway, Portugal and Sweden. (The patterns in terms of mother's education are similar.)

Esping-Andersen (2004a) uses IALS data to analyse the impact of father's education on their children's years of education in 8 countries. Controlling for ability (i.e. literacy test scores), he finds that the negative effect of low educated fathers has diminished sharply in Scandinavia (especially for the very youngest cohorts, born around 1970), but that the effect remains strong and persistent in Germany, the UK and the USA.

In parallel analyses, Esping-Andersen (2009) finds that test score variations, both in mathematics and in literacy, are very strongly related to the familial learning milieu, i.e. “cultural capital”. As will be discussed in more detail below, these findings point to the possible importance of a wholly different welfare state attribute, namely how high-quality universal child care programmes may help equalize early cognitive stimulation

Much of the literature on education as a transmission mechanism has focused on the way the education system itself is structured and financed, and on the barriers – financial and cultural - which students from poorer backgrounds can face in progressing from one level to the next. It is clear that institutions and structures do matter, and there appears to be a broad consensus that early tracking according to ability reduces educational mobility across generations (see for example Hanushek and Woessmann, 2004). Schutz *et al* (2005) estimate a “family background effect” and compare it across countries, finding that it increases with private expenditure and decreases with private enrolment, and that these features of the education system can jointly account for 40% of the cross-country variation. To capture family background they, like Esping-Andersen (2004a; 2009), use a variable for the quantity of books in the home as an indicator of the prevailing learning culture.

This example highlights the difficulties we face in our quest to identify the precise mechanisms that link family background to educational (and other outcomes). The intergenerational transmission of educational success is undoubtedly the product of a complex mix of financial resources, knowledge, parenting attitudes, values, and abilities. Some of these attributes are highly correlated, but some are not. We know that the intensity and content of parenting is highly correlated with parental education (McLanahan, 2004; Esping-Andersen, 2009). And, yet, there is virtually no correlation between family socio-economic status and ‘number of books in the home’ (librarians earn little; the very rich have little time to read).

Furthermore, we are beginning to realize that policies that promote the attainment of higher levels of education – central to strategies aimed at improving equality of opportunity – may not be adequate if our aim is to address the disadvantages that children from poorer backgrounds face from the outset. This point is very much emphasized in the recent literature that argues for an early childhood focus. Still, pervasive disillusionment

with apparent lack of major equalization via educational reforms should not disillusionment with education-focused strategies adopted in many countries to date should not lead us to throw out the baby with the bath-water. As we discuss below, the institutional design of the education system remains decisive.

Clear trends over time are difficult to ascertain, and even more so to link specific educational reforms to outcomes. Shavit and Blossfeld's (1993) seminal study of inequality in educational attainment summarises its results in the title: *Persistent Inequality*. In spite of dramatic educational expansion during the 20<sup>th</sup> century, most of the 13 countries included in their study exhibited stability of inequalities. In Hertz *et al*'s (2007) estimates of the intergenerational schooling correlation for the USA and 12 Western European countries, the U.S. and the U.K. are the only two countries to display a statistically significant increase over time in standardized persistence, whereas a downward trend is found in the Netherlands and Finland.

Breen *et al* (2009 and forthcoming), focusing respectively on men and women, employ data sets with substantially larger samples over a longer period of time. Focusing on the familiar distinction between "primary" and "secondary" effects, they set out a number of reasons why *a priori* one might have expected educational inequalities to decline: economic growth and welfare state expansion, reinforced by changes within educational institutions, should have been to the advantage of working class children; the declining cost of education, increases in family income, and the lengthening of compulsory education should have had a significant impact on educational decisions. Their analyses for seven European countries indicate that social class advantages in education have become less acute. This decline was most pronounced in Sweden, the Netherlands, Britain, Germany and France, and less so in Italy, Ireland and Poland.

Focusing on the role of specific changes in educational institutions, the major school reform implemented in Sweden in the 1960s has been the subject of considerable study. It involved moving away from a traditional selective system to a mixed-ability, mass second-level system with abolition of selection at age 12, together with an increase in compulsory schooling and imposition of a national curriculum. As mentioned, Erikson and Jonsson (1996) see it as playing a major role in the marked reduction in inequalities in educational opportunities within Sweden. Meghir and Palme (2005) conclude that the

impact was that children with unskilled fathers were both more likely to reach the new compulsory level of schooling and to go beyond it. This may account for increased intergenerational mobility (see also Holmlund, 2006).

Pekkarinen *et al* (2006) also suggests that raising the age of tracking is associated with a significant increase in intergenerational mobility in Finland. The study by Black, Devereux and Salvanes (2005) of the impact of an increase in the length of compulsory schooling together with a reduction in tracking in Norway in the 1960s, finds that increasing the number of years parents spent in school had a measurable impact on their child's education (they conclude this is for the most part not a causal relationship, with the high correlations between parents' and children's education due primarily to family characteristics and inherited ability and not to education spill-overs.) For the USA, Oreopoulos and Page (2006) use variation across states in the changes in compulsory school laws and conclude that an increase in the education of either parent reduced the probability that a child repeats a grade and significantly lowered the likelihood of dropping out. By contrast, Henieck and Riphahn (2007) find for Germany that in spite of major public policy interventions and education reforms, for the birth cohorts 1929 through 1978 no significant reduction in the role of parental background for child outcomes over the last decades is found.

#### **4. The Welfare State and IGM**

As noted earlier, income redistribution would be one obvious route through which the welfare state could influence IGM. In this case, we assume that mobility patterns are associated with levels of inequality or poverty. Is there a clear case for such a link? The theoretical logic behind such a link is, as already noted, twofold. Inequalities in the period of childhood should translate into more unequal parental investment in their offspring. Inequalities in the era of adulthood should, in contrast, reflect differential returns to human capital. Björklund and Jäntti (2009) plot inter-generational earnings elasticities against Gini coefficients for income inequality in the 1980s. In general, the countries with the most equal distributions of income at a given point in time also exhibit the greatest degree of income mobility. But the fit is far from perfect since Australia and Canada combine high mobility with moderately high inequality, and France displays less

mobility than would be expected from its level of inequality.<sup>v</sup> Similarly, the OECD (2009) compares IGM elasticities with GINI coefficients around 2000 and argue that the evidence “...is suggestive of a consistent cross-country pattern of low intergenerational mobility and high income inequality”. But measuring inequality in year 2000 means, of course, that it does not tap the conditions that prevailed during childhood. If inequality in one generation is passed on to subsequent generations it would, from a welfare policy perspective, appear more relevant to focus on how childhood-era inequalities influence mobility opportunities.

Even if we observe a strong association between levels of inequality and IGM, this obviously does not imply causality. We clearly need to know much more about the mechanisms underlying the relationship. Solon (2004) offers one perspective, arguing that unequal earnings distributions and higher returns to education give better-off parents a greater incentive to invest in their children’s human capital.<sup>vi</sup> Following this line of reasoning, the unusually compressed wage structure in the Nordic countries may, then, account for their comparatively high mobility rates. And yet, this kind of explanation is directly contradicted by other evidence. As discussed earlier, the patterns of mobility from the top parental income quintile are virtually identical in Scandinavia and in the UK and the USA (Jantti et.al., 2006). In fact, the higher Scandinavian mobility rates are almost exclusively due to much greater mobility opportunities than elsewhere for children that come from families in the *lowest* income quintile. To the extent that income matters at all, this suggests that the welfare policies of relevance are those that either directly (say, via income support) or indirectly (say, via low unemployment) reduce poverty and strengthen the financial resources of the worst off.

The relationship between social class mobility and cross-sectional inequality has also received some attention. Erikson and Goldthorpe (1992) argue that the advantaged and powerful classes will seek to use their superior resources to preserve their own and their families’ positions (p. 396). If so, it follows that more equality of opportunity will require more equality of initial condition. Goldthorpe and Jackson (2007) similarly note that “insofar as widening inequality of condition, as, say, in incomes and wealth, of the kind that has characterised Britain in recent decades, tends to reduce social fluidity it is on such long-range mobility that its first impact would appear most likely to show up.” In

relation to the USA, however, Morgan and Kim (2004) argue that post-1980 trends in educational attainment “are less supportive of this classic proposition than one might have expected” (p. 186.)

Hout (2003, 2004), refers to the lack of correlation between social mobility and equality as “The Inequality-Mobility Paradox”. There are two circumstances that may help explain this paradox. First, as Gregg et.al. (1999) suggest, rising income inequality (as experienced in the UK and the USA) affect families with children more dramatically than the rest of the population. Secondly, among child families rising inequality goes hand-in-hand with more income polarization, primarily because the gap between the bottom and the median widens – i.e. low income families fall behind (see also Blanden et.al., 2005). Such effects can be quite dramatic. Gregg et.al. (1999) show that, in the UK, the proportion children living in poor families (less than half of average income) rose from 13 to 33 percent between 1979 and 1996.

The basic problem we face in terms of identifying the causal ‘smoking gun’ is that it is very difficult to know whether lower inequality in and of itself helps to promote mobility, or whether it is the same institutions and policies that underpin lower inequality that also influence IGM. In this scenario, low inequality and high IGM are the joint outcome of some underlying cause. The education, labour market, tax, and social protection policies which influence cross-sectional inequality might have – and may indeed be designed to have – a direct effect on mobility as well. Equalising opportunities has always been an important element in policies to reduce inequality. And in most countries, this was primarily pursued by democratizing access to education.

We have strong evidence that the abolition of early tracking and the introduction of comprehensive school systems have helped promote IGM in Sweden, Finland and Norway – primarily by boosting educational attainment among the least privileged social strata. Since these are also countries in which welfare state redistribution increased substantially over the same period, it is difficult to identify how much it was education reform or income equalization that produced higher mobility. In addressing this ambiguity, Blanden et.al.’s (2005) analyses of the UK are interesting, showing that education reform which delayed tracking produced a substantial increase in inter-generational mobility, primarily to the benefit of children from low income families. In

this case, it cannot be ascribed to an increase in welfare state redistribution since, over the same period, income inequality actually grew. But they also show that less redistributive financing of British higher education helped strengthen the upper class bias of the system. So education policy undoubtedly does play a role in intergenerational mobility. Indeed, as Blanden's study suggests, it can both promote and repress mobility all at once. But it is also evident that even the most ambitiously egalitarian education policies cannot single-handedly cancel out social origin effects.

There are clearly other aspects of the welfare state, such as social security, labour market regulation, healthcare, housing, and family policies that can influence mobility. What can we say with any degree of confidence about these elements of Welfare State institutions and IGM? Since there are no clear correlations between aggregate levels of social spending and cross-sectional inequality or poverty, the size of the welfare state per se would appear irrelevant as far as mobility is concerned. In fact, we have almost no empirical research that addresses this question. In a comparison across US states, though, Mayer and Lopoo (2008) find that high-spending states boast greater intergenerational mobility than the low-spenders. The difference in mobility between advantaged and disadvantaged children is also smaller in high-spending compared to low-spending states, and expenditures aimed at low-income populations increase the future income of low-income but not high-income children. But these findings simply beg the question of what, precisely, is it that connects spending with mobility? Are both perhaps driven by some common underlying factor? Or is greater mobility associated with spending on particular programmes – such as income support to poor families?

How welfare states distribute cash transfers is likely to matter. There is some evidence that inter-generational transmission of welfare dependency may be related to programme design. An empirical comparison of cash support schemes in the USA and Sweden suggests that passive programmes are more likely to promote the transmission of welfare dependency than are active ones (Corak *et al* 2004). More generally, benefit systems that rely heavily on means-testing are more likely to create poverty and unemployment traps. These, in turn, limit intra-generational mobility among those at the bottom and make it more likely that poverty and welfare dependency persist into subsequent generations. Child poverty is undoubtedly associated with inferior life

chances and social policies that minimize child poverty are likely to also promote more inter-generational inequality. Income support is, in this regard, potentially effective. But so are policies that help reconcile motherhood and employment (see for example UNICEF, 2007, Whiteford and Adema, 2007). It has been calculated that the risk of child poverty falls by a factor of four when mothers are employed (Esping-Andersen, 2009).

Since differences in ability and education affect earnings, it would appear obvious that inequalities in the labour market – and, more generally, labour market regulation – can influence IGM. It is, however, not easy to pin down the precise causal channels that link labour market institutions and behaviour to intergenerational mobility. As discussed previously, the degree of wage dispersion should affect intergenerational earnings- and income- mobility. The OECD (2009) argues that less earnings dispersion, higher minimum wages, and broader bargaining coverage contribute to lower returns to education (and perhaps lower income inequality at any point in time) and thus reduce the incentive for better-off parents to invest more in their children. This would, all else equal, produce higher IGM (Solon, 2004). However, if high minimum wages, earnings compression, and job protection also promote more unemployment, the effect on IGM would be adverse. To begin with, unemployment tends to be strongly correlated with social origins; additionally, unemployment will have negative consequences for life-time earnings and income. If so, the greater equality that minimum wages or wage compression create at any point in time may be accompanied by more inequality viewed from a life course perspective. This, of course, depends ultimately on whether in fact egalitarian wage structures or job protection legislation do promote more unemployment. The evidence suggests that the Nordic countries have been highly successful in combining low unemployment with extensive job security and wage equality. In contrast, this is far from the case in most Continental European countries such as France, Italy or Belgium (OECD, 1999; Esping-Andersen and Regini, 2004).

A good example of such ambiguities is found in married women's labour force participation which varies substantially across countries. As already suggested, maternal employment can have decisive effects on IGM via its ability to reduce poverty. The key issue has to do with how precisely female employment is distributed. High maternal employment rates at the bottom of the income distribution should promote upward



mobility since the marginal effect on total family income is likely to be considerable. Most countries exhibit huge female participation gaps in terms of education, but this is not the case in the Nordic countries where participation varies little across social strata. Raum *et al* (2007) argue that the inter-generational correlation in family earnings depends greatly on female employment at the top of the social hierarchy. Since mothers in high-income households work less in the USA and UK than in Scandinavia, country differences in intergenerational income transmission are smaller than otherwise would be the case. Variations in female labour supply can, at least in part, be attributed to policy differences, including the wage penalty for part-time work, the way couples are taxed, the design of maternity leave schemes, and the price, availability and quality of child care. An implication is that policies that promote women's labour force participation may also yield positive effects in terms of intergenerational income mobility, in particular if the effect is strongest at the bottom of the household income distribution.

Healthcare is, in expenditure terms, one of the core pillars of the welfare state. There is ample evidence linking health in childhood to socio-economic status, and also childhood health to later outcomes (e.g. Blanden *et al* 2006, Eriksson *et al* 2005, Case and Paxson 2006). It is well-established that poor child health is strongly correlated with family poverty, and the adverse health effects of low income are likely to cumulate over children's lives. Studies such as Case *et al* (2005) suggest that an important share of the intergenerational transmission of socioeconomic status works through the impact of parents' income on children's health. Eriksson *et al* (2005) report that in Denmark the intergenerational earnings elasticity falls by 25-28% when controlling on parental health status, and the correlation with parents' earnings decreases when controlling also for the children's health. Hertz (2006) estimates that the relation between parental income and health status explains 8% of the inter-generational correlation of income in the USA (see also Case *et al* 2002). The analyses of Esping-Andersen and Wagner find similar strong effects of offspring health on IGM in all the countries included in their study. Poor health explains typically between 5 and 10 percent of the variance in offspring's income mobility.

If health is potentially a key factor in the intergenerational correlation of income and education, can we identify institutional settings that minimise health inequalities, and

be sure that they contribute to greater IGM? The factors underlying health inequalities are still hotly debated, including the role of healthcare versus material circumstances and behavioural factors. The scope for healthcare to reduce health inequalities may be limited in most rich countries, though less so in ones where access for the poor is particularly constrained. The USA, for example, is unusual in the extent to which income affects access to health care, and Currie and Gruber (1996) find a clear impact of the expansion in Medicaid eligibility on children's chances of seeing a doctor. Better healthcare for poor families is an important element in the broader package of measures required to improve the prospects of disadvantaged children, and could contribute to reducing intergenerational poverty persistence. The fact that Esping-Andersen and Wagner find few country differences in the impact of health may have to do with the fact that all the countries under study boast comprehensive and universal health care systems. Leaving aside access to health care it is, however, less obvious how policy can best tackle the impact of health inequalities on IGM.

While housing policy comprises another significant element of the welfare state, its potential role in IGM is less obvious. One issue that has received considerable attention in the literature is the potential effect of living in a "bad" neighbourhood. While the reigning consensus in IGM research is that neighbourhood effects pale in comparison to family effects, some studies suggest that local conditions can help explain the intergenerational transmission of income (OECD, 2009). Solon, Page and Duncan (2000), analyzing PSID data on school attainment, conclude that neighborhood factors contribute at most 20 percent to the factors that siblings share. Raum, Salvanes and Sorensen (2003), using Norwegian census data, found that neighborhood correlations are small compared to sibling correlations for both education and long-run earnings. Considering the rather weak influence of neighborhood conditions on IGM it is unlikely that differences in housing policy will have much of an effect overall.

Family policies are, in contrast, of potentially great relevance. Generous child allowances can have a substantial marginal effect on family budgets, especially in low income households. The design of parental leave schemes and the provision of affordable child care help reconcile motherhood and employment. And, as we shall examine in more

detail below, universal high-quality early child care should help equalize both cognitive and non-cognitive development and, thus, school readiness.

There is a good deal of evidence that family structure affects the linkage between socio-economic outcomes of parents and children. Björklund and Chadwick (2003) find that sons of divorced couples are less mobile than their peers from intact families. This they ascribe to differences in educational attainment. Children from lone parent households do less well than they “should” given their parents income, and Andersen and Leo (2005) argue that income transmission is stronger in “intact” families than in single-parent households. It is, however, possible that observed negative effects of single parenthood are related to social selection into lone parenthood to begin with. In this case, the real issue is not family structure but the characteristics that determine such (Piketty 2003). Compared to the US where the adverse effects of single motherhood are well-documented (albeit controversial), there has been little such research for European countries. Esping-Andersen and Wagner (2010) estimated the effects of lone motherhood on both educational attainment and on adult income; in none of the countries included (Denmark, Norway, Italy, France, Spain, and the UK) did lone motherhood have any significant effects having controlled for mother’s education and financial hardship in the family.

An important issue in this respect is the changing social gradient of marital behaviour. While high-status women were traditionally less likely to marry and more likely to divorce, the trend in many countries (especially North America and Scandinavia) is now exactly the opposite: lone motherhood and partner instability is increasingly concentrated among low educated women. This may produce compounding and potentially polarizing effects in terms of children’s life chances (McLanahan, 2004; Esping-Andersen, 2009). If Biblarz and Raftery (1999) are correct in arguing that it is not lone motherhood as such but rather its association with low incomes that affects children adversely, the role of family policy – and more broadly – welfare state income support would appear of key importance for equalizing life chances. If, on the other hand, the adverse consequences of divorce and lone motherhood are related to a nurturing deficit, then the provision of affordable, high-quality child care services would appear relevant.

Sibling size is another possible candidate in terms of influencing mobility. Lindahl (2002) reports that the intergenerational earnings elasticity decreases with birth order for a given family size in Sweden; this is especially so at the bottom of the earnings distribution. The inter-generational association in earnings is also likely to be strongest for unique children. After controlling for birth order, Grawe (2006) finds significant family-size effects on inter-generational earnings mobility in UK; similar results for Scandinavian countries are reported in Björklund *et al* (2004).<sup>vii</sup> The problematic sibling size-effect can, like for lone motherhood, be ascribed to different causes: one, there are more mouths to feed which means added constraints on the family budget; two, there are more little souls to nurture which means that each child receives less – most likely the higher birth orders. The Esping-Andersen-Wagner cohort analyses (op.cit) also included estimations of sib-size effects. Here, interestingly, it was found that the negative effect of sib-size remains significant (and quite strong) across all the post-war birth cohorts in France, Italy, Spain and the UK whereas in both Denmark and Norway it disappears with the cohort born 1958-67. To the extent that the latter captures welfare state effects, it is unlikely to be related to child care services – their expansion only began seriously in the 1970s and 1980s. The more plausible hypothesis, then, is that it has to do with family allowances and income support.

## **6. The Importance of an Early Childhood Focus**

There is a growing consensus in the literature that conditions in the earliest phases of childhood are particularly important for subsequent life chances. It is well-established that ages 0-6 are decisive for children's cognitive skills, sense of security, and motivation to learn, with developmental psychologists agreeing that the basic abilities for learning are most intensely developed during this period (Danziger and Waldfogel, 2000, Duncan and Brooks-Gunn, 1997). Substantial differences in children's cognitive abilities by parents' socio-economic status emerge at early ages and carry through to subsequent achievements in education and earnings (e.g. Cunha and Heckman, 2007). Heckman's work has been particularly influential in demonstrating that investing in early childhood is a cost-effective policy, with early childhood development programmes having a

pronounced positive impact on school achievement and other outcomes that substantially outweigh the costs.

If most agree that early childhood conditions are key, we are less certain which conditions matter most. There is little doubt that family income in early childhood, and poverty in particular, have strong effects on later outcomes such as educational attainment and earnings. Family ‘culture’ also seems important in influencing parenting behavior and child stimulation (de Graaf et al, 2000; Esping-Andersen, 2007). This is captured in Heckman’s ‘learning-begets-learning’ model: kids who start well subsequently learn more easily; kids with a poor start are likely to be handicapped for life (Carneiro and Heckman, 2003). The finding that differences in the design of education systems seem to matter only marginally for mobility may reflect the importance of childhood circumstances in the ages *prior to compulsory schooling*.

This has major implications for the role of social institutions in IGM. The extent and intensity of child poverty varies substantially across industrialized countries, and this may be related to observed variations in later outcomes including education and earnings as well as social problems such as truancy, school drop-out and criminality (cf. Duncan et al, 1998, McCulloch and Joshi, 2002). Social policy can, both directly (via income transfers) and indirectly (by supporting maternal employment) help minimize the incidence and the duration of family poverty. The role of maternal earnings may be especially important for lone mother families. Targeting intensive health, nutrition and other supports on particularly deprived families can be readily justified within the same frame from an IGM perspective as well as for its own sake.

We should also keep in mind that it is during the earliest years that children are most privatized and rely primarily on family inputs. The time that parents dedicate to their children, as well as the kind of dedication they bring to bear, varies hugely across families (Bianchi *et al*, 2006), with some evidence that nurturing patterns are polarizing (McLanahan, 2004; Esping-Andersen, 2009). While it is difficult to imagine how policies might alter parenting behavior, inequalities in families’ learning culture can be neutralized, or at least diminished, if institutions ensure that childhood stimulation is more homogenous across all children. Any first grade teacher will readily identify the children who attended (good quality) child care and kindergarten institutions.

All this suggests that welfare states that furnish comprehensive, high quality pre-school care are also likely to produce a homogenizing effect in terms of children's school preparedness. Indeed, the core evidence that underpins Heckman's work comes from early intervention programs in the US. Using cross-national comparisons, Esping-Andersen (2004b) finds some indirect support for the thesis, showing a significant decline in social inheritance effects (focusing on children from low educated parents) for the Nordic countries (but not elsewhere) within the child cohorts that first came to benefit from universal, high-quality child care. Of course, these very same cohorts also benefited from the largesse of the family allowance system and, more generally, from very low child poverty, which once again makes the precise welfare state effects difficult to disentangle. Schutz *et al* (2005) in their cross-sectional comparison across countries report an inverted U-shaped relationship between family background effect and pre-school enrolment, which suggests that early education may reduce the extent to which family background shapes life-chances. OECD (2009) concludes that good quality care in early childhood, pre-school and also school years, are essential tools for promoting intergenerational mobility.

It is important, in highlighting the role of "learning culture", to distinguish between cultural resources and aspirations: any cultural explanation needs to be able to account for the expansion seen in educational participation and gender differences in those trends. Differences in broader economic resources, not merely income, may create environments in terms of uncertainty and stress which significantly reduce the possibility of creating environments/micro-cultures that are learning friendly. This is not inconsistent with the rational action perspective that sees families acting in a subjectively rational manner, and explanations couched in terms of cultural values and resources. The former assumes that actors have goals and alternative means of pursuing these goals and in choosing their course of action tend in some degree to assess probable costs and benefits. From this perspective, as Breen and Goldthorpe (1997) argue, in so far as class specific norms may be identified, we can recognise them as guides to action that have evolved over time out of distinctive class experiences. Where this form of explanation fails, we may seek alternative explanations in terms of class differences in the value placed on educational outcomes.

While Cunha and Heckman (2009) stress the value of early investment, they acknowledge that the early years are far from being determinative of adult outcomes. As Doyle et al (2007) argue, the economic case for early investment does not preclude later investment but rather directs attention to dynamic complementarities. A further example of policy relevant choices and complementarities is provided by recent research on the relative importance of ‘primary’ and ‘secondary’ effects on educational attainment (Erikson and Jonsson, 1996, Jackson et al 2007). Primary effects are all those, whether of a genetic or socio-cultural kind, that are expressed via the association between children’s class backgrounds and their levels of academic performance. Secondary effects are those that are expressed via the educational choices that children from differing class background make, within the range that their performance allows. As Jackson *et al* (2007) argue, a major issue policy is the relative weight attached to policies aimed at overcoming the resource and informational constraints that affect the educational choices of those from less advantaged backgrounds, as opposed to policies aimed at helping them from an early age to develop relevant academic abilities more successfully. While focusing on primary effects is in principle the more radical approach, questions can still be posed about relative cost-effectiveness, in light of the substantial wastage of *already developed* academic ability and the potential impact of measures designed to offset the economic costs to poorer children when attempting more ambitious educational courses.

## **7. Conclusion**

Research on inter-generational mobility has still far to go in its quest for genuinely causal explanation. To be sure, we have made headway in terms of understanding the relative importance of genetic as distinct from social inheritance; we have come to understand that neighbourhood effects play, at best, a secondary role; and we are beginning to zero in on the key role that early childhood conditions play for later attainment. There is universal consensus that the family of origin is central, and we have been able to pinpoint quite well the salience of both family finances and its socio-cultural characteristics. But it is not yet very clear what is the relative impact of either, nor whether the two produce important interactions effects.

There is also a broad consensus that social institutions matter, but here we are very far from being able to pinpoint any concise causality. Education systems were traditionally hypothesized to have what one might term a quasi-causal effect: it was broadly assumed that a genuine democratization of education would guarantee selection based primarily on merit rather than the lottery of birth. Contemporary research has, to be sure, not discarded the role of educational institutions altogether; it is well documented that some features – tracking systems in particular – do influence the pathways from origins to destination in important ways.

A finding in contemporary research that needs to be highlighted is the general persistency of IGM patterns, both historically and across nations. With very few exceptions, the impact of origins appears as strong today as in our fathers' and grandfathers' times. This seems to hold for educational attainment, income, and class mobility. But the exceptions are important. First, they cluster in Scandinavia; Sweden, in particular, stands out, although this may simply be because comparative researchers focus more on Sweden than any of the other Nordic countries. Secondly, the evidence suggests that the noticeably greater mobility found in Scandinavia is of rather recent vintage. Focusing secondly on the importance of early childhood, we also need to highlight the importance of the causal chains that in particular James Heckman's work has uncovered. This work, too, emphasizes variance rather than seemingly preordained persistency: the life chances of the most-at-risk children can be substantially improved with the help of high-quality intervention policies.

Both of these 'highlights' within recent scholarship provide fertile clues to how we might better grasp the potential influence of social institutions in general, and the welfare state in particular. Beginning with the latter, the evidence points clearly to the salience of three factors: health, cognitive, and non-cognitive stimulation. The lack of universal access to quality health care makes the US a very exceptional case, and one might plausibly hypothesize that this constitutes one important reason for why the US performs comparatively poorly on many mobility indicators. As far as both cognitive and non-cognitive development is concerned, the 'externalization' of early childhood stimulation yields truly impressive effects for later achievements if, that is, the externalization occurs in high-quality child care institutions. This insight can be



generalized: if early stimulation is decisive and, yet, depends almost exclusively on familial inputs it would seem logical that variations in parenting intensity and talent should account for much of the social inheritance effects we observe. It follows that *universal* high-quality early childhood care attendance should produce equalizing effects in terms of children's subsequent school-preparedness.

The contributions of Heckman and others stress the impact of family 'culture', which is promising for potential welfare state effects, from family policy in general and day care institutions in particular. The fact that the Scandinavian countries stand out as exceptional and that this is of recent vintage may be attributable to their international leadership in terms of securing early child care based on identical high-quality standards for all children. Yet, here there is a counter-factual case, namely France, which after the Nordic countries boasts Europe's highest rates of pre-school child care and nonetheless displays less social fluidity than comparable countries. For future researchers, Finland provides a different kind of empirical test because there, since the 1990s, governments changed policy direction by providing greater incentives for mothers to stay home with their pre-school children.

But welfare states also affect the income distribution. In fact it is difficult indeed to untangle welfare state effects that operate via child care provision from those that operate via income equalization and, especially, poverty reduction: the two developed in tandem within the Nordic countries. Since we still do not have any clear and consistent conclusions regarding the relative salience of family finances and 'culture', we are also poorly positioned to formulate more precise hypotheses regarding rival welfare state effects. To complicate matters further, we should also take the argument of Erikson and Jonsson (1996) seriously, namely that the decline of social inheritance in Sweden is also a function of an incomparably aggressive equalization policy in the education system. Their argument can, nonetheless, be questioned since a similar educational reform was not put in place in either Denmark or Norway. In other words, the welfare state offers a promising starting point to explain the phenomenon of Scandinavian exceptionalism *and* its recent vintage. The chief challenge is, like in IGM research generally, to establish the relative salience of money, culture and the interaction of the twain.

What research strategies have the greatest potential for understanding better the impact of welfare state institutions? One avenue would be to focus on specific barriers to mobility and how public policy can reduce them (see for example Jencks and Tach, 2006). Another and complementary strategy, stressed above, is to compare across different countries over time, measuring trends in different aspects of IGM and relating these to variations in institutions and policies. This strategy has been particularly fruitful in research on income inequality and poverty, and despite the need for care in interpreting summary indicators and the many difficulties in relating variations in them to institutional factors, it is an indispensable component of IGM research for the future. As Björklund and Jäntti (2009) argue, theory suggests many causal processes, and different theoretical models offer different predictions about, for example, the relationship between intergenerational mobility and cross-sectional inequality or the impact of public education programmes. Such models are often far too complex and demanding for estimation and testing. As they argue: “By offering a rich set of stylized facts, empirical research can tell us what mechanisms are important, which can in turn sharpen future theoretical research”. (op.cit p. 495). The review of the evidence presented in this paper offers many examples, perhaps the most striking being the “surprises” in the ranking of countries in terms of the intergenerational correlation in earnings, as well as the UK debates about trends over time in different indicators of IGM and how they (and their inter-relationships) are to be interpreted.

The challenges faced in pushing forward this strategy are substantial. The first is to improve the information base in terms of the coverage, reliability and interpretation of measures of IGM. Very substantial progress has been made in that respect over the past quarter-century, but as we have seen the number of country cases that can be reliably compared, with each other or over time, across the different dimensions of intergenerational mobility is still too limited. The second challenge, in aiming to identify precisely what aspects of welfare state intervention make a difference, is that the leap from institutions or policies to IGM is too great – we need better analytical tools that link institutions to mobility processes if we are to be able to pin-points the key mechanisms at work.

## References

- Aaronson, Daniel and Bhaskar Mazumder. 2007. "Intergenerational Economic Mobility in the US, 1940 to 2000." *B.E. Journal of Policy Analysis* 7 (2):
- Anderson, Gordon and Teng Wah Leo. 2006. "Intergenerational Educational Attainment Mobility and Family Structure." Paper presented at the 29th General Conference of The International Association for Research in Income and Wealth.
- Andrews, Dan and Andrew Leigh. 2009. "More Inequality, Less Social Mobility". *Applied Economics Letters*. 16: 1489–1492.
- Atkinson, Anthony, Alan. Maynard, and Clive Trinder. 1983. *Parents and Children: Incomes in Two Generations*. London: Heinemann.
- Atkinson, Anthony, Bea Cantillon, Eric Marlier and Brian Nolan. 2002. *Social Indicators: The EU and Social Inclusion*. Oxford: Oxford University Press.
- Biblarz, Timothy and Adrian Raftery. 1999. "Family Structure, Educational Attainment, and Socioeconomic Success: Rethinking the 'Pathology of Matriarchy'." *American Journal of Sociology* 105: 321-365.
- Björklund, Anders and Markus Jäntti. 1997. "Intergenerational Income Mobility in Sweden Compared to the United States." *American Economic Review* 87(5): 1009-1018.
- Björklund, Anders and Markus Jäntti. 2009. "Intergenerational Income Mobility and the Role of Family Background." in Wiemer Salverda, Brian Nolan and Timothy Smeeding (eds.), *The Oxford Handbook of Economic Inequality*. Oxford: Oxford University Press.
- Björklund, Anders, Tor Eriksson, Markus Jäntti, Oddbjørn Raaum, and Eva Österbacka. 2004. "Family Structure and labour market success: the influence of siblings and birth order on the earnings of young adults in Norway, Finland and Sweden." in Miles Corak, ed., *Generational income mobility in North America and Europe*. Cambridge: Cambridge University Press.
- Björklund, Anders, Markus Jäntti and Gary Solon. 2005. "Influences of Nature and Nurture on Earnings Variation: A Report on a Study of Various Sibling Types in Sweden." in Samuel Bowles, Herbert Gintis and Melissa Osborne Groves, *Unequal Chances: Family Background and Economic Success*. New York: Russell Sage.
- Black, S.E., Paul. Devereux and Kjell Salvanes. 2005. "Why the Apple Doesn't Fall Far: Understanding Intergenerational Transmission of Human Capital." *American Economic Review* 95 (1): 437-449.

Blanden, Jo, Alissa Goodman, Paul Gregg and Stephen Machin. 2004. "Changes in Intergenerational Mobility in Britain." in Miles Corak (ed.), *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press.

Blanden, Jo and Stephen Gibbons. 2006. *The Persistence of Poverty Across Generations: A View from Two Cohorts*. Bristol: Policy Press.

Blanden, Jo, Paul Gregg and Stephen Machin. 2005. 'Educational inequality and intergenerational mobility.' in Stephen Machin and Anthony Vignoles, eds. *What's the Good of Education?* Princeton: Princeton University Press.

Bonke, Jens, Azhar Hussain and Martin Munk. 2006. "A Comparison of Intergenerational Earnings Mobility Studies based on Danish Register Information". *SFI Working Paper*, Copenhagen: Danish National Institute of Social Research.

Bowles Samuel and Herbert Gintis. 2002. "The inheritance of inequality." *Journal of Economic Perspectives* 16 (3): 3-30.

Bratberg, Espen, Øivind Nilsen, and Kjell Vaage. 2007. "Trends in Intergenerational Mobility across Offspring's Earnings Distribution in Norway." *Industrial Relations* 46 (1): 112-129.

Breen, Richard. 2004. *Social Mobility in Europe*. Oxford: Oxford University Press.

Breen, Richard and John Goldthorpe. 1997. "Explaining Educational Differentials: Towards a Formal Rational Action Theory." *Rationality and Society* 9(3): 275-305 (reprinted in David Grusky, ed., 2001, *Social Stratification: Class, Race and Gender*. Boulder, Col: Westview Press).

Breen, Richard and Jan O. Jonsson. 2005. "Inequality of opportunity in comparative perspective: recent research on educational attainment and social mobility." *Annual Review of Sociology* 31: 223-243.

Breen, Richard, Ruud Luijkx, Walter Muller and Robert Pollak. 2009. "Nonpersistent Inequality in Educational Attainment: Evidence from Eight European Countries." *American Sociological Review* 114 (5); 1475-1521.

Breen, Richard, Ruud Luijkx, Walter Muller and Robert Pollak. (forthcoming). "Long-term Trends in Educational Inequality in Europe: Class Inequalities and Gender Differences." *European Sociological Review*,

Carneiro, Pedro and James Heckman. 2003. 'Human capital policy.' in James Heckman and Alan Krueger, eds. *Inequality in America*. Cambridge, Mass: MIT Press.

Case, Anne, Darren Lubotsky, and Christina Paxson. 2002. "Economic Status and Health in Childhood: The Origins of the Gradient." *American Economic Review* 92: 1308-34.

- Case, Anne, Angela Fertig and Christina Paxson. 2005. "The lasting impact of childhood health and circumstances." *Journal of Health Economics* 24: 365-389.
- Case, Anne and Christina Paxson. 2006. "Children's Health and Social Mobility." *The Future of Children* 16(2): 151-173.
- Causa, Orsetta, Sophie Dantan and Åsa Johansson, (2009), "Intergenerational Social Mobility in European OECD Countries." *Economics Department Working Paper 709*, Paris: OECD.
- CERC, 2004. *Child Poverty in France*. Paris: Conseil de L'Emploi, des Revenues et de la Cohesion Sociale.
- Chadwick, Laura and Gary Solon. 2002. "Intergenerational income mobility among daughters." *American Economic Review* 92(1): 335-344.
- Charles, Kerwin and Erik Hurst. 2003. "The Correlation of Wealth Across Generations." *Journal of Political Economy* 111(6): 1155-1182.
- Comi, Simona 2004. "Intergenerational mobility in Europe: evidence from ECHP." *Child Working Paper n. 18/2004*, Turin: University of Turin.
- Corak, Miles. 2001, "Are the Kids All Right? Intergenerational Mobility and Child Well-Being in Canada." *The Review of Economic Performance and Social Progress*, Vol. 1, Montreal: Institute for Research on Public Policy and Centre for the Study of Living Standards.
- Corak, Miles. 2004. "Generational Income Mobility in North America and Europe: an introduction." in Miles Corak, ed., *Generational Income Mobility in North America and Europe*. Cambridge University Press, Cambridge.
- Corak, Miles. 2006. "Do Poor Children Become Poor Adults? Lessons from a Cross Country Comparison of Generational Earnings Mobility." *IZA Discussion Paper n. 1993*. Bonn: Institute for the Study of Labor.
- Corcoran, Mary. 2001. "Mobility, Persistence, and the Consequences of Poverty for Children: Child and Adult Outcomes." in Sheldon Danziger and Robert Haveman, eds., *Understanding Poverty*. Russell Sage Foundation and Harvard University Press.
- Couch, Ken and Dean Lillard. 2004. "Non-linear patterns in Germany and the United States." in Miles Corak, *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press.
- Cunha, Flavio and James Heckman. 2007. "The Technology of Skill Formation." *American Economic Review* 97 (2): 31-47.

- Cunha, Flavio and James Heckman. 2009. "The Economics and Psychology of Inequality of Human Development." *Geary Institute WP/5/2009*, Dublin: UCD.
- Currie, Janet. 2001. "Early childhood intervention programs." *Journal of Economic Perspectives* 15: 213-38
- D'Addio, Anna Christina. 2007. "Intergenerational Transmission of Disadvantage: Mobility or Immobility across Generations? A Review of the Evidence for OECD Countries." *Social, Employment and Migration Working Papers No.. 52*, Paris: OECD.
- Danziger, Sheldon and Jane Waldfogel. 2000. *Securing the Future: Investing in Children from Birth to College*. New York: Russell Sage Foundation.
- Dearden, Lorraine, Stephen Machin, and Howard Reed. 1997. "Intergenerational Mobility in Britain." *Economic Journal* 107: 47-66.
- De Graaf, Nan Dirk, Paul de Graaf and G. Kraaykamp. 2000. "Parental cultural capital and educational attainment in the Netherlands: a refinement of the cultural capital perspective." *Sociology of Education* 73: 92-111.
- Di, Zhu Xiao and Yi Yang. 2002. "Intergenerational Wealth Transfer and Its Impact on Housing", W02-2, *Joint Center for Housing Studies*. Cambridge, Mass.: Harvard University.
- Doyle, Orla, Colm Harmon, James Heckman and Richard Tremblay. 2007. "Early Childhood Intervention: Rationale, Timing and Efficacy." *Geary Institute, WP/5/2007*, Dublin: UCD.
- Duncan, Greg and Jeanne Brooks-Gunn, eds. 1997. *Consequences of Growing Up Poor*. New York: Russell Sage Foundation.
- Duncan, Greg, Wei-Jun Yeung, Jeanne Brooks-Gunn and James Smith. 1998. "How Much Does Childhood Poverty Affect the Life Chances of Children?" *American Sociological Review* 63 (3): 406-23.
- Erikson, Robert and John Goldthorpe. 1992. *The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Oxford University Press.
- Erikson, Robert and John Goldthorpe. 2002. "Intergenerational Inequality: a Sociological Perspective." *Journal of Economic Perspectives* 16 (3): 31-44.
- Erikson, Robert and Jan Jonsson. 1996. *Can education be equalized? The Swedish case in comparative perspective*. Boulder: Westview.

Eriksson, Tor, Bernt Bratsberg and Oddbjørn Raaum. 2005. "Earnings persistence across generations: Transmission through health?" *Memorandum n. 35/2005*, Department of Economics, Oslo: University of Oslo.

Ermisch, John and Marco Francesconi. 2004. "Intergenerational mobility in Britain: new evidence from the British Household Panel Survey." in Miles Corak, ed.. *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press.

Ermisch, John, Marco Francesconi and Thomas Siedler. 2006. "Intergenerational economic mobility and assortative mating." *The Economic Journal* 116: 659–679.

Ermisch, John and Chetti Nicoletti. 2007. "Intergenerational earnings mobility: Changes across cohorts in Britain." *B.E. Journal of Economic Analysis and Policy* 7 (2):

Esping-Andersen, Gosta. 2004a. "Unequal opportunities and the mechanisms of social inheritance." in Miles Corak, ed. *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press.

Esping-Andersen, Gosta. 2004b. "Untying the Gordian knot of social inheritance." *Research in Social Stratification and Mobility* 21: 115-139

Esping-Andersen, Gosta. 2007. "Sociological Explanations of Changing Income Distributions." *American Behavioural Scientist* 50 (5): 639-58.

Esping-Andersen, Gosta. 2009. *The Incomplete Revolution*. Cambridge: Polity Press

Esping-Andersen, Gosta and Marino Regini. 2004. *Why Deregulate Labour Markets?* Oxford: Oxford University Press.

Esping-Andersen, Gosta and Sander Wagner. 2010. "Learnings About Intergenerational Mobility from the EU-SILC Module 2005." *Department of Sociology Working Paper*. Barcelona: Universitat Pompeu Fabra.

Goldthorpe, John and Michelle Jackson. 2007. "Intergenerational Class Mobility in Contemporary Britain: Political Concerns and Empirical Findings." *British Journal of Sociology* 58 (4): 525-546.

Goldthorpe, John and Colin Mills. 2004. "Trends in Intergenerational Class Mobility in Modern Britain: Evidence from National Surveys, 1972-2005." *National Institute Economic Review* 205: 83-110.

Gottschalk, Peter, Sara McLanahan, and Greg Sandefur. 1994. "The Dynamics and Intergenerational Transmission of Poverty and Welfare Participation." in Sheldon Danziger, Greg Sandefur and Daniel Weinberg, eds. *Confronting Poverty: Prescription for Change*. Cambridge, Mass.: Harvard University Press.

Grawe, Nathan. 2006. "Family Size and Child Achievement." *Research on Economic Inequality* 13: 189-215.

Gregg, Paul, Susan Harkness and Stephen Machin. 1999. *Child Development and Family Income*. York: Joseph Roundtree Foundation

Hanushek, Eric and Ludger Woessmann. 2005. "Does Educational Tracking Affect Performance and Inequality? Differences-in-Differences Evidence across Countries." NBER Working Paper No. 11124. Cambridge, Mass: NBER.

Harbury, Colin and David Hitchens. 1979. *Inheritance and Wealth Inequality in Britain*. London, Allen and Unwin.

Harding, David, Christopher Jencks, Leonard Lopoo and Susan Mayer. 2005. "The Changing Effect of Family Background on the Incomes of American Adults." in Samuel Bowles, Herbert Gintis, and Melissa Osborne Groves. *Unequal Chances: Family Background and Economic Success*. New York: Russell Sage.

Heckman, James and Lance Lochner. 2000. "Rethinking education and training policy." in Sheldon Danziger and Jane Waldfogel, eds. *Securing the Future*. New York: Russell Sage.

Heineck, Guido and Regina Riphahn. 2007. "Intergenerational Transmission of Educational Attainment in Germany: The Last Five Decades." *IZA Discussion Papers* 2985. Bonn: Institute for the Study of Labor.

Hertz, Thomas. 2007. "Trends in the Intergenerational Elasticity of Family Income in the United States." *Industrial Relations* 46 (1): 22-50.

Hertz, Thomas, Tamara Jayasundera, Patrizio Piraino, Sibel Selcuk, Nicole Smith and Alina Verashchagina. 2007. "The Inheritance of Educational Inequality: International Comparisons and Fifty-Year Trends." *The B.E. Journal of Economic Analysis & Policy*, 7 (2).

Hirvonen, Lalaina. 2006. "Intergenerational Earnings Mobility Among Daughters and Sons: Evidence from Sweden and a Comparison with the United States." *mimeo, Institute for Social Research*. Stockholm: Stockholm University.

Holmlund, Helena 2006. "Intergenerational Mobility and Assortative Mating Effects of an educational reform." *Swedish Institute for Social Research working paper n. 4/2006*. Stockholm: Stockholm University.

Hout, Michael. 2003. "The Inequality-Mobility Paradox: The Lack of Correlation between Social Mobility and Equality." *New Economy* 10: 205-207.



Hout, Michael. 2004. "How Inequality may Affect Intergenerational Mobility." in K. Neckerman, ed., *Social Inequality*, New York: Russell Sage Foundation.

Jackson, Michelle, Robert Erikson, John Goldthorpe and Meir Yaish. 2007. "Primary and secondary effects in class differentials in educational attainment: the transition to A-level courses in England and Wales." *Acta Sociologica* 50(3): 11–229.

Jäntti, Markus, Bernt Bratsberg, Knut Roed, Oddbjørn Raaum, Robin Naylor, Eva Österbacka, Anders Björklund and Tor Eriksson. 2006. "American exceptionalism in a new light: a comparison of intergenerational earnings mobility in the Nordic countries, the United Kingdom and the United States." *IZA discussion papers No 1938*. Bonn: Institute for the Study of Labor.

Jäntti, Markus, Eva Sierminska and Timothy Smeeding. 2008. "The Joint Distribution of Household Income and Wealth: Evidence from the Luxembourg Wealth Study," *OECD Social, Employment and Migration Working Papers 65*. Paris: OECD.

Jencks, Christopher and Laura Tach. 2006. "Would Equal Opportunity Mean More Mobility?" in Samuel Morgan, David Grusky and Gary Fields eds. *Mobility and Inequality: Frontiers of Research from Sociology and Economics*. Stanford: Stanford University Press.

Karoly, Lyn, Rebecca Kilburn and Jill Cannon. 2005. *Early Childhood Interventions*. Santa Monica, CA: Rand Corporation.

Klevmarken, Anders. 2004. "On Household Wealth Trends in Sweden over the 1990s." *Levy Economics Institute Economics Working Paper Archive 395*. New York: Bard College.

Lee, Chul-In. and Gary Solon. 2006. "Trends in Intergenerational Income Mobility." *NBER working paper no. 12007*. Cambridge, Mass.: NBER.

Lefranc, Arnaud and Alain Trannoy. 2005. "Intergenerational earnings mobility in France: Is France more mobile than the US?" *Annales d'économie et de statistique*. 78: 57-77.

Leigh, Andrew. 2007. "Intergenerational Mobility in Australia." *B.E. Journal of Policy Analysis*, 7 (2).

Lindahl, Lena 2002. "Do birth order and family size matter for intergenerational income mobility? Evidence from Sweden." *Working Paper 5/2002*, *Swedish Institute for Social Research*, Stockholm: Stockholm University.

Liu, Haoming and Jinli Zeng 2009. "Genetic ability and intergenerational earnings mobility." *Journal of Population Studies* 22 (1): 75-95.

- Maurin, Eric. 2002. "The impact of parental income on early school transitions." *Journal of Public Economics* 85: 301-32
- Mayer, Susan. 1997. *What Money Can't Buy*. Cambridge, Mass: Harvard University Press.
- Mayer, Susan and Leonard Lopoo. 2005. "Has the Intergenerational Transmission of Economic Status Changed?" *Journal of Human Resources* 40 (1): 169-185.
- Mayer, Susan and Leonard Lopoo. 2008. "Government Spending and Intergenerational Mobility." *Journal of Public Economics* 92: 139-158.
- Mazumder, Bhaskar. 2005, "The Apple Falls even closer to the tree than we thought: new and revised estimates of intergenerational inheritance of earnings." in Samuel Bowles, Herbert Gintis and Melissa Osborne Groves eds. *Unequal Chances: Family Background and Economic Success*. New York: Russell Sage.
- McClanahan, Sara and Wendy Sigle-Rushton. 2004. "Father absence and child well-being: a critical review." in Daniel Moynihan, Lee Rainwater and Timothy Smeeding eds. *The future of the family*. New York: Russell Sage Foundation.
- McCulloch, Andrew and Heather Joshi. 2002. "Child Development and Family Resources: an exploration of evidence from the second generation of the 1958 Birth Cohort." *Journal of Population Economics* 15 (2): 283-304.
- McLanahan, Sara. 2004. "Diverging destinies: How children fare under the 2<sup>nd</sup> demographic transition." *Demography* 41: 607-27.
- Meghir, Costas and Martin Palme. 2005. "Educational Reform, Ability, and Family Background." *American Economic Review* 95 (1): 414-424.
- Menchik, Paul. 1979. "Intergenerational Transmission of Inequality: An Empirical Study of Wealth Mobility." *Economica* 46: 749-62.
- Morgan, Stephen and Young.-Mi Kim. 2006. "Inequality of Conditions and Intergenerational Mobility: Changing Patterns of Educational Attainment in the United States." in Stephen Morgan, David Grusky and Gary Fields eds. *Mobility and Inequality: Frontiers of Research in Sociology and Economics*. Stanford: Stanford University Press.
- Mulligan, Casey. 1999. "Galton versus the human capital approach to inheritance." *Journal of Political Economy* 107: S184-S224.
- OECD. 1999. *Employment Outlook*. Paris: OECD
- OECD. 2009. *Growing Unequal*. Paris: OECD.

Oreopoulos, Philip, Marianne Page and Ann Huff Stevens. 2006. "Does Human Capital Transfer from Parent to Child? The Intergenerational Effects of Compulsory Schooling." *Journal of Labor Economics* 24 (4): 729-760.

Österbacka, Eva. 2001. "Family background and economic status in Finland." *Scandinavian Journal of Economics* 103: 467-484.

Page, Marianne. 2004. "New Evidence on the intergenerational correlation in welfare participation." in Miles Corak, ed. *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press.

Pekkala, Sari and Robert E.B Lucas. 2007, "Differences across Cohorts in Finnish Intergenerational Income Mobility." *Industrial Relations* 46: 81-111.

Pekkarinen, Tuomas, Roope Uusitalo and Sari Pekkala. 2006. "Education Policy and Intergenerational Income Mobility: Evidence from the Finnish Comprehensive School Reform." *IZA DP No. 2204*. Bonn: Institute for the Study of Labor.

Piketty, Thomas. 2003. "The impact of divorce on school performance. Evidence from France, 1968-2002." *CEPR Discussion Paper 4146*. London: CEPR.

Raaum, Oddbjørn, Kjell Salvanes and Erik Sørensen. 2003. "The impact of a primary school reform on educational stratification: A Norwegian study of neighbour and school mate correlations." *Swedish Economic Policy Review* 10: 143-169.

Raaum, Oddbjørn, Bernt Bratsberg, Knut Røed, Eva Österbacka, Tor Eriksson, Markus Jääntti and Robin Naylor. 2007. "Marital Sorting, Household Labor Supply, and Intergenerational Earnings Mobility across Countries." *B.E. Journal of Economic Analysis and Policy* 7 (2).

Schütz, Gabriela, Heinrich Ursprung and Ludiger Woessmann. 2005. "Education Policy and Equality of Opportunity", IZA Discussion Paper, n. 1906, Bonn: Institute for the Study of Labor.

Shavit, Yossi and Hans Peter Blossfeld, eds. 1993., *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press.

Sigle-Rushton, Wendy. 2004. "Intergenerational and Life-Course Transmission of Social Exclusion in the 1970 British Cohort Study." *Centre for Analysis of Social Exclusion discussion paper no. 78*. London: London School of Economics and Political Science.

Solon, Gary. 2002. "Cross-country Differences in Intergenerational Income Mobility." *Journal of Economic Perspectives* 16: 59-66.

Solon, Gary. 2004. "A Model of Intergenerational Mobility Variation over Time and Place." in Miles Corak ed. *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press.

Solon, Gary, Greg Duncan and Martha Page. 2000. "Correlations between Neighboring Children in Their Subsequent Educational Attainment." *Review of Economics and Statistics* 82: 383-392.

UNICEF. 2007. "Child poverty in perspective: An overview of child well-being in rich countries." *Innocenti Report Card 7*, Florence: UNICEF.

Waldfogel, Jane, 2006. *What Children Need*. Cambridge, Mass: Harvard University Press

Whelan, Christopher and Richard Layte. 2006. "Economic Boom and Social Mobility: the Irish Experience." *Research in Social Stratification and Mobility* 24: 193-208.

Whelan, Christopher and Bertrand Maitre, 2008. "Social Class Variation in Risk: a Comparative Analysis of the Dynamics of Economic Vulnerability." *British Journal of Sociology* 59 (4): 637-659.

Whiteford, Peter and Willem Adema, 2007. What Works Best in Reducing Child Poverty: A Benefit or Work Strategy? *OECD Social, Employment and Migration Working Papers No. 51*, Paris: OECD.

Wilson, William Julius. 1987. *The truly disadvantaged: The inner city, the underclass and public policy*. Chicago: University of Chicago Press.

Wolff, Edward. 2004. "Changes in Household Wealth in the 1980s and 1990s in the U.S." *Working Paper No. 407, Levy Economics Institute*, New York: Bard College.

Wolff, Edward, 2007. "Recent Trends in Household Wealth in the United States: Rising Debt and the Middle-Class Squeeze." *Working Paper 502, Levy Economics Institute*, New York: Bard College.

---

<sup>i</sup> Our remarks regarding community and neighborhood effects reflect the current state of research in general. There exist, to be sure, studies that bring out highly negative effects of special situations, such as Wilson's (1987) work on the ghetto underclass phenomenon in the USA.

<sup>ii</sup> This is illustrated by, for example, the OECD's (2009) recent *Growing Unequal*.

<sup>iii</sup> See also Solon (2002), Björklund and Jäntti (1997), Bratberg, Nilsen and Vaage (2007), Bonke, Hussain and Munk (2005), and the contributions to Corak (ed.) 2004).

<sup>iv</sup> These analyses control for financial hardship in the childhood family, immigrant status, number of siblings and the labor supply of the offspring.

<sup>v</sup> The relatively low intergenerational correlation in the case of Australia and Canada is sometimes attributed to the role of immigration and immigration policies, but Aydemair, Chen and Corak, 2009, show that for Canada the elasticity between father and son earnings is no different among immigrants than among the population at large.

---

<sup>vi</sup> Note though that inequality is being measured in the studies mentioned in relation to household income rather than earnings. Andrews and Leigh (2009) show a significant positive relationship across ten countries, but based on predicted parental earnings (using fathers' occupation and current earnings by occupation).

<sup>vii</sup> See also McClanahan and Sigle-Rushton (2004). Biblarz and Bucur (1997) and Biblarz and Raftery (1999) have also examined differences across family types in the intergenerational transmission of occupational status.