

# INVESTING IN EARLY CHILDHOOD

BY

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## INTRODUCTION

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A major puzzle of our times is the lack of any serious equal opportunities progress despite so much effort invested in its pursuit. To fully understand why, we need to identify more precisely the mechanisms at work. What is now well understood is that educational reforms, no matter how progressive and egalitarian in design, are institutionally ill-equipped to break the Gordian Knot of social inheritance. Developmental psychology has shown that the crucial cognitive and behavioural foundations for learning are cemented very early in childhood. What occurs in the *pre-school* ages is fundamental for children's ability and motivation to learn when they subsequently embark on formal education. The imprint of social origins is therefore already firmly established before schools play any major role in our lives. The logical conclusion is that we must centre our attention more on what happens within the family than on education policy.

Both cognitive and non-cognitive skills are partially transmitted genetically and partially the result of nurturing – that is, of environmental stimulus (Bowles et. al., 2001; 2005; Bjorklund et. al., 2005). It may be futile to aspire towards an exact differentiation between nature and nurturing effects but there is little doubt that the impact of the latter is very large. Since cognitive (and non-cognitive) abilities influence school success and, subsequently, life chances in adulthood, the policy challenge is to ensure a strong start for all children. Investing well in our children will yield very large returns both for the life chances of the individual and for society at large.

There are two basic 'efficiency' reasons for why we need to minimize inequality of skills and human capital.

The first is demographic. Due to prolonged low fertility the coming youth cohorts are, and will continue to be, very small. Over the next decades, the working age population of the EU will shrink by 50 million. These small cohorts must support a large and rapidly growing elderly population. Hence, we need to invest maximally in the productive potential of contemporary youth in order to guarantee a sustainable welfare state over the decades to come.

The second reason has to do with the rapidly rising skill requirements in the knowledge-intensive economies. While everyone agrees that skills are ever more decisive, there is substantial controversy over what types of skills matter most. Formal educational credentials surely remain crucial. We can, as a rule of thumb, pretty much predict that someone with no more than a lower secondary degree will fare very poorly in tomorrow's labour market. In virtually all advanced economies today, early school leavers suffer three times more unemployment than do those with higher degrees, and they are hugely over-represented among the long-term unemployed. Viewed in life course terms, the low educated are unlikely to accumulate much pension wealth and are, accordingly, at risk of old age poverty.

Any serious consideration of equality and efficiency must realize that children are a positive collective good. It is certainly not easy to arrive at any precise estimate of their social value. Preston's (2004) estimate for an average child on a lifetime basis of USD 100,000 may be indicative of the magnitudes. But the question is whether the high social gains that wonder-kids produce are offset by the costs to society of the failures. The Urban Institute in the US estimates that child poverty creates social costs equivalent to 4% of GDP of which 1.3% is attributable to reduced economic output, another 1.3% to crime, and 1.2% to health effects.<sup>1</sup> This is in great part caused by the strong link between poverty, school failure, and juvenile delinquency.

Rising income inequality influences children's opportunities. At one extreme we see top income households distancing themselves from the middle, in part because of rising returns on skills and, in part, due to concentrations of high-earning dual-career couples at the top. At the bottom of the income pyramid, less educated couples face strong probabilities of low income and joblessness (Katz and Autor, 1999; Gregg and Wadsworth, 2001; Hyslop, 2001). With the notable exception of France, the Gini coefficient of (market) income inequality has risen throughout the advanced societies, in some countries such as Germany, Sweden, the UK and the US by more than 20 percent. Perhaps the single most troubling trend lies in the often substantial rise in child poverty. It has doubled in Italy, Germany and the Netherlands, but has remained fairly stable (at about eight percent) in France (Esping-Andersen and Myles, 2009).

As inequality widens, parents' capacity to invest in their children's fortunes will become more unequal (Solon, 1999). This means that social inheritance is reinforced.

Ongoing change in family structure may also contribute to polarization. To begin with, families are more unstable and the share of children growing up in lone-mother households is rising. Lone-mother families now account for 15-20 percent

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(1) Testimony by Harry Holzer (Urban Institute) before the US House Committee on Ways and Means, January 24, 2007.

of all child families in Northern Europe and the US. The consequences for children's well-being are decidedly negative in the US, but the evidence for Europe is more ambiguous. This has undoubtedly something to do with underlying social selection. In the US (and UK) lone motherhood and divorce is increasingly concentrated within the lower social strata, while this is less so in most of Europe.

There are two main reasons why lone-mother families create negative child outcomes. One is that they are at high risk of poverty. In the US, half of all lone-mother families are poor, but as we would expect the risk is lower in Europe: 29 percent in France, 38 percent in Germany and a low of 13 percent in Sweden (Esping-Andersen and Myles, 2009). The containment of poverty in Scandinavia is probably less due to generous welfare state support and more to the fact that virtually all lone mothers work. Another reason why children of lone parents fare poorly lies in the potential 'nurturing deficit' due to less parental time dedication. This, of course, is especially likely when lone mothers are employed.

A second trend is the increase in marital selection, particularly with regard to educational homogeneity. This is especially pronounced at the top and the bottom of the social ladder so that, at one end, we see a concentration of two parents with strong human capital and, at the other end, a concentration of parents with little education. This should widen inequalities, not only because of the gap in earnings power, but also due to employment patterns.

Marital homogamy is also likely to polarize parental dedication to their children. There is clear evidence that highly educated mothers *and* fathers dedicate much more time to their children, in particular with regard to what we might call developmental time, that is, active stimulation.

A third demographic challenge comes from large-scale immigration. A curious facet of immigration is that second generation immigrants tend to converge with local populations in terms of demographic behaviour, such as fertility, but not in terms of education and skills. To illustrate, even in Sweden where the school system is extraordinarily committed to rectifying immigrant children's learning disadvantages, the probability of school failure is nevertheless five times higher for immigrants than for natives. A more general illustration comes from the PISA data which show generally very large gaps in cognitive abilities between native and immigrant youth.

In sum, ongoing societal trends are worrisome and potentially a source of polarization. We know that income inequalities are widening and that child poverty is rising. The gap in parental time investment is, likewise, growing between the higher and less educated. Worst of all, there appears to be a strong coincidence between the two, suggesting the possibility of compounding effects.

## 1. WHAT CAN POLICIES DO?

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How can policy influence positively on children's life chances? In a sense, the question is as old as is our civilization. Plato was seriously worried about the quality of Athenian soldiers and advocated that children of incapable parents should be removed from their family and be raised by the state. The Kibbutz ideology was surely more egalitarian with its stipulation that *all* children should be ensured an identical stimulus and, hence, be raised collectively. Such kinds of measures are clearly excluded from any realistic policy menu in the advanced democratic nations. Parents have children because this is their desire, and our societies are founded on the firm principle that the sanctity of the family is inherently inviolable. How, then, might we design a workable strategy for equal opportunity?

### 1.1. REDUCING THE INCOME EFFECT

The link between low income and children's life chances suggests the relevance of income redistribution. There are both social and individual costs associated with child poverty.

Redistribution can be an effective tool for combating child poverty. Public spending in favour of families is 3-4 percent of GDP in the Nordic countries and 2.8 percent in France, compared to 0.4 percent in the US and 1.1 percent in the Netherlands.<sup>2</sup> However, France ends up with a post-transfer child poverty rate of around eight percent despite dedicating resources of Nordic magnitudes. This is to be expected considering that French poverty before redistributive transfers is about ten percentage points higher.

An income redistribution strategy would seem attractive for a number of reasons. If the objective were to fully eradicate child poverty (defined as less than 50 percent of equivalent median income), the price tag is actually surprisingly small. For the US, with record child poverty, I have estimated a cost of only 0.4 percent of GDP (Esping-Andersen, 2002). This happens to be exactly ten times less than the estimated social costs of US child poverty. But such redistribution would have to be repeated year after year and the *net* benefit need to be considered against possible second-order effects such as reduced parental labour supply. Also, a targeted transfer approach may fail to command broad citizen support. We should not forget that family transfers are motivated by other concerns, such as collectively recognizing the importance of parenthood. Indeed, the value of parenting in Sweden is equivalent to one fifth of the GDP (Klevmarken, 1998). If children are so beneficial to the economy while most of the costs of children are internalized by the parents, an equity calculus would conclude in favour of universal, non-income graduated, and fairly generous child and family allowances. If those without children are free-riders, they should be made to pay.

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(2) Calculated from OECD's SOC-X data.

Child benefits should therefore not be confused with anti-poverty policies. If our aim is to minimize or, indeed, eradicate child poverty we might introduce some form of a guaranteed minimum to families that supplements standard family benefits. If the cost were, say, 0.4% of GDP we would then need to match this against possible second-order effects. Would parents respond by working less? Would it effectively narrow the school attainment gap of poor kids? As to the latter, there is cause for scepticism since the schooling gap is surely not solely the effect of income but also of unobservable factors, some of which need not be correlated with being poor, and some of which (say, poor health or teenage pregnancy) may provide the explanation of poverty to begin with.

In any case, the burden on income redistribution would be lessened significantly if maternal employment were to increase among low income households. The probability of child poverty drops by a factor of 3 or even 4 when mothers are employed. The effect is potentially strongest in lone-parent families. It makes a big difference whether, as in Denmark, the lone-mother activity rate is 81 percent or, as in the UK, only 35 percent. Kangas and Ritakallio (1998) provide particularly suggestive evidence in this regard. They simulate what France's poverty rate would be with Scandinavia's transfer system and demographic structure. Considering, as we have seen, that France approximates the Nordic countries in terms of poverty-reduction – but not in terms of post-transfer child poverty – it is not surprising that any serious convergence with Scandinavia's low child poverty would have to come from increments in French mothers' employment rate. But as is well-recognized, maternal employment depends crucially on access to affordable childcare.

## 1.2. EQUAL OPPORTUNITIES IN THE LEARNING MILIEU

We now realize that a truly effective policy needs also to address the family 'culture' effects. But if we exclude any Platonian solution this would, to most, appear as being entirely outside the competence of policy. How, we might ask, can policy induce parents to read with their children or censure television viewing?

One important clue is found in the extensive evaluation research on early childhood intervention that has been conducted in the US. The main – and very systematic – finding is that high-quality intervention on behalf of at-risk pre-school age children has substantial and lasting effects in terms of improved social integration, less delinquency, and more schooling (Carneiro and Heckman, 2003; Kameron et al., 2003; Karoly et al., 2005). The Perry pre-school programme, which emphasizes early intervention with high quality services targeted to underprivileged children, appears particularly effective in terms of both child outcomes and cost effectiveness. Participation in the ABCedarian programme, widely celebrated for its quality, is associated with a 32% drop in high school dropout risks, and it increases the chance

of attending college by a factor of three (Barnett and Belfield, 2006). Through age 27, it yields a USD 5.70 return for every dollar spent – in part due to less criminal behaviour and, in part, due to substantially improved learning abilities among the children (Carneiro and Heckman, 2003, p. 165). Early learning begets better learning later on; a poor start translates into persistently inferior learning abilities.

The logic behind this cost-benefit analysis is very compelling, since it incorporates the positive synergy effects (learning begets learning) of early investments into the cost of later ones. The rate of return rises exponentially the younger is the child, suggesting that pre-school and early-school investments yield disproportionately high net returns. If the standard monetary rate of return on schooling hovers around 10 percent, we could anticipate returns on pre-school investments that are possibly more than twice this magnitude. And if the marginal returns are much greater for those who are most likely to fail in school, then early investments should produce an equal opportunities gain.

Such findings from the United States should not be uncritically generalized to Europe where inequalities in child conditions are less extreme. But the crucial point is that early intervention programmes that include strong behavioural and cognitive stimulus can be effective in equalizing outcomes, especially to the advantage of the most-at-risk. There is accordingly a very strong case to be made in favour of financing early, high quality childcare.

Here again, the experience from the Nordic countries can be of relevance – for good and bad. In the late 1960s, Denmark and Sweden began a massive and very rapid expansion of pre-school institutions aimed at securing universal access, a goal by and large achieved by the 1980s. The policy was actually not cast in terms of investing in children but rather as an instrument to reconcile motherhood and careers. But in order to cater to the tastes of middle class families, it ensured that standards were high. For instance, Denmark boasts a ratio of three children per carer for the under-3s.

Nordic childcare policy learned many lessons along the way. Until the 1990s, for example, children were not eligible if the mother was on maternity leave or in receipt of unemployment compensation. This had the undesirable consequence that many of those children who might benefit the most were excluded, considering which women are more likely to be unemployed or to have many children. In recent years, policy makers have tried to make it especially attractive for immigrant and unemployed parents to place their children in public care centres. A second lesson was that parental leaves and childcare needed to be better synchronized. Until the 1990s, the combined maternity-parental leave in Denmark covered little more than 6 months, which meant that a very large percentage of infants were placed in crèches very early.

For these countries there are few systematic impact studies of childcare policy. Andersson (1992) shows that, in Sweden, day care has positive consequences for child development, especially in the case of less privileged families. A more recent comparison between Denmark and the US shows also that Danish childcare has especially favourable effects for the most at-risk children (Esping-Andersen et. al., 2011).

There is also more indirect evidence to suggest that the arrival of universal pre-school attendance is associated with a significant equalization of school attainment and, one can argue, also with the quite homogeneous performance on tests of educational outcomes. Using the 2003 PISA data, we can compare the cognitive performance of youth who participated more than one year in pre-school education with those who did not participate at all. In Denmark and the US, participation is associated with a gain of almost 40 points on the literacy test. In most countries, the effect is even larger: a 90-point improvement in Germany, a 60-point gain in the UK. Additionally, childcare participation diminishes the explanatory importance of socioeconomic origins, of parents' 'cultural capital', of being immigrant child, and of having a mother with low education.

The International Adult Literacy Survey allows us to assess the effects of social origin on the probability of completing upper level secondary education across birth cohorts. I estimated the social origin effect net of children's abilities in order to capture the essence of social inheritance, and controlled for the children's cognitive test scores as well as for sex and immigrant status. The analyses followed three cohorts, the oldest born in the late 1940s and early 1950s; the youngest in the 1970s, and compared social inheritance trends in the three Nordic countries with Germany, the UK, and the US. (Esping-Andersen, 2009).

In Germany, the UK, and the US there was no decline whatsoever in the impact of origins on educational attainment across the three cohorts – which is to say, over a half century. In the US, for example, the odds of completing upper secondary education are roughly a tenth of those that come from higher educated parents. In contrast, there was a very significant decline in the association in all three Scandinavian countries. The drop occurs primarily in the youngest cohort, which was the first to enjoy near-universal participation in childcare. To exemplify, in Denmark the probability of attaining higher education was, for the oldest cohort, a fifth as large as for those whose parents had high education. For the youngest Danish cohort, the relative probability has declined to only a half. Or, if we compare across countries, the Danish youth of low-educated fathers now enjoy an almost five times greater chance of finishing upper secondary education as their American or German counterparts.

These results do not, of course, tell us whether equalization was due to childcare, income redistribution or, most likely, a combination of both. But the coincidence of

timing is very suggestive. It is evident, especially in Denmark and Sweden, that the big leap in equalization is centred in the youngest cohort. This is, in fact, the first cohort in which the majority of children came to be enrolled in pre-school institutions in either country.

High quality childcare and pre-school participation may, accordingly, constitute a truly effective policy in the pursuit of more equal opportunities. Since access to child care is concomitantly a precondition for maternal employment, which yields positive income effects, the promotion of childcare would appear a perfect win-win policy. We need therefore to examine this nexus in closer detail.

### 1.3. **MOTHERS' EMPLOYMENT AND CHILD OUTCOMES**

The income gain that comes from mothers' employment may be offset by potentially adverse consequences for nurturing their children. We know that motherly employment during the first year can be harmful for child health and cognitive development. Waldfogel et. al. (2002) find that such negative effects are especially accentuated within low income families. Thus policy would need to ensure a combination of *paid* maternity and parental leave that approaches the one year duration. In both Denmark and Sweden, leave schemes permit the parents to remain home with the infant over the entire first year with full earnings compensation. The norm in most of the EU is no more than four months.

Very brief leaves can be doubly problematic. They may push mothers back to work excessively. To illustrate, 60 percent of new Dutch mothers return to work within six months of birth (Dutch paid leave is only four months), while virtually all Danish mothers return within 10-14 months (Simonsen, 2005). Overly brief leaves may also provoke exit from employment. About one in four of Dutch mothers simply disappear from the labour market while the Danish percent is negligible (Gustafsson and Kenjoh, 2004).

The cost of providing a one-year leave system is substantial. Using Denmark as a benchmark, it equals 0.6% of GDP. This must be held up against the benefits. According to one study, paid leaves increase female employment rates by 3-4 percent, and post-leave wages are higher (Ruhm, 1998). In part, therefore, the cost of longer leaves is recuperated further on via enhanced career earnings and tax payments. We should also evaluate the cost in consideration of the positive child effects of parental presence during infancy.

If we look beyond the first year, the major obstacle to mothers' employment lies in access to childcare. Childcare costs become a regressive tax if fees are independent of the mother's (or household) earnings. Tax deductions are commonly used in many nations, but these are unlikely to eliminate the regressive incidence since they are of less relevance for low income families to begin with.

Kindergarten (age 3+) attendance is near universal in many countries and is often defined as integral to the education system and thus free of charge. The key question has to do with children less than three years old. In large parts of Europe, the conventional solution has been familial care – the grandmother. This option is rapidly becoming obsolete because the reservoir of available family carers is in rapid decline. Private childcare markets can thrive, as in the US, because of high price and quality differentiation. But in most of the EU, the market for quality childcare is very limited due to high costs. The Nordic countries and, to a lesser degree, Belgium and France subsidize child care for toddlers. But due to design differences, the outcomes vary substantially. For a standard two-earner couple in France, the cost of one child approaches 25% of their earnings, compared to only ten percent in Denmark (Immervol and Barber, 2005). This is surely one explanation for why Danish childcare attendance at age one is double the French.

The potential learning impact of early care is also likely to differ. French childcare coverage for the under-3s amounts to approximately 40%. Only half of these children are enrolled in centre-based care, while the other half is placed with individual carers. The Nordic approach (and especially the Danish), in contrast, is premised on high-quality, full-day care with guaranteed access for all children. This requires, unsurprisingly, heavy subsidies: the parental co-payment is only 33% of cost and disappears for lower income parents.

In order to evaluate whether public subsidies for childcare are warranted we need to examine two distinct cost-benefit logics: how childcare affects female employment and earnings, and how it affects child outcomes. As to the former, we have clear evidence that childcare availability raises maternal employment levels. A Danish study shows that a EUR 100 decrease in childcare costs produces a 0.8% increase in employment (Simonsen, 2005). Since childcare allows mothers to return to their jobs sooner, the lifetime income penalty of motherhood is lowered substantially. The lifetime income gains and the associated larger tax payments to the Exchequer will, over the years, basically defray the initial public subsidy to childcare.

The cost-benefit calculus in terms of child outcomes may, in one sense, be unnecessary if childcare practically pays its own way due to higher lifetime earnings for women. Any positive learning or behavioural effect that it yields comes, so to speak, gratis. The good news here is that the returns on high quality early childhood programmes are potentially huge. One US study found that every dollar spent yields a USD 5.60 return, and more recent estimates suggest a return in excess of USD 12.00 (Carneiro and Heckman, 2003). However, these estimates refer to underprivileged children who we already know will benefit disproportionately.

## 2. TARGETED OR UNIVERSAL MEASURES?

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Should we therefore favour a targeted rather than Danish-style universal policy? If our primary aim is to level the playing field, a targeted approach would appear the more cost-effective alternative. The choice for or against targeting depends, firstly, on the value we place on equity in the broadest sense. Targeting services to the most under-privileged children can, as US experience shows, narrow the performance gap for those at the very bottom. However, unless targeting is very ample it will not necessarily result in overall improvement of life chances. The US Head Start programme reaches only about seven percent of three-year olds and thus falls far short of reaching the entire at-risk population (US child poverty hovers above 20 percent, and that the share falling below the PISA minimum score is almost as big). The remaining 93 percent of any child cohort will receive care options that to a large extent mirror parents' purchasing power. The huge unevenness of US early care is well documented (Blau, 2001).

More generally, the basic dilemma of targeted policy is how to ensure that it does reach the needy. Here a comparison of the US approach to Britain's Sure Start is of interest. While the former targets problem families, the latter targets high-risk communities. Neither approach can ensure that need is adequately addressed. Identifying problem families is only easy when their problems are visible; and in the case of Sure Start it is far from certain that all the needy live in high-risk communities. The real obstacle to effective targeting lies in the multiple mechanisms that produce adverse child outcomes. While income poverty is easily identifiable, this is certainly not the case for parental nurturing practices.

Opting in favour of universal coverage has the great advantage of ensuring that all children, irrespective of origin, come to enjoy similar high standards. And if the system helps mix children from different backgrounds, so much the better. US evaluation research shows that disadvantaged children reap very positive effects when mixed with stronger kids (Hanusheck et. al., 2003). Yet, the obvious shortcoming of an across-the-board universal model of the Nordic variety is that the most under-privileged children might require additional resources and attention. One example of this problem is the lower participation rate of children from immigrant families. Some form of affirmative action, including perhaps special incentives to target groups, may therefore be called for to accompany a universal approach.

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### CONCLUSION: HELPING FAMILIES TO INVEST IN THEIR CHILDREN

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Human capital investments have, over the past half-century, been almost exclusively directed at formal education. It is only quite recently that we have come to realize that the foundations of learning – as well as the chief mainsprings of inequalities – lie buried in very early childhood and that schools are generally ill-equipped to

remedy a bad start. It is now evident that investments yield the highest returns in the pre-school stage and decline exponentially thereafter. The returns are especially high for underprivileged children.

All this suggests that we need to re-evaluate human capital policy. As a starter, educational spending in *all* advanced countries goes in exactly the opposite direction from what the learning-begets-learning perspective prescribes. Per student spending rises monotonically from pre-school up to tertiary education. We spend on average twice as much *per student* on tertiary level as on pre-primary education. Moreover, pre-primary spending is, in most countries, concentrated in the ages 3-6. Except for the Nordic countries and, at some distance, Belgium and France, investment in children under three years old is truly marginal.

Concerns about equality of opportunities and future productivity coincide in policies that aim to raise the homogeneity of our human capital reservoir. The share of youth that ends up with insufficient skills is very large in many countries, be it in terms of either formal qualifications or cognitive and non-cognitive abilities. This is cause for alarm considering that skill requirements continuously grow.

Departing from the dictum that the key mechanisms lie in very early childhood and are prevalently centred in the family, we need to identify how policy can aid families in giving their children the best possible chances in life. A core issue lies in the persistence of strong social inheritance. Conventional theory has emphasized monetary effects in general and poverty in particular. This is without any doubt a major contributor to differential school success and, more generally, to unequal life chances. But social scientists as well as policy makers have paid far less attention to non-economic factors in the inter-generational transmission of disadvantage. There is a credible case to be made that non-economic mechanisms may be of equal if not greater importance than income. To a degree, the two coincide: teen-age mothers, immigrants, and low-educated parents are also more likely to be income poor. But we are almost certainly tapping two rather distinct dimensions, and this implies that a strategy based narrowly on income redistribution is unlikely to fully succeed.

The evidence suggests, instead, a two-pronged policy that would appear attractive both from the point of view of cost effectiveness and because it can produce a more equal start for all children. In a nutshell the strategy condenses into an early childhood care policy. The case for income redistribution towards families with children is certainly evident and requires little additional comment save to stress that the burden on redistribution would be eased considerably if mothers were employed. There are multiple reasons why especially less educated women's activity rates are low and access to affordable child care is only one. Nevertheless, if accompanied by adequate maternity leave provisions and a neutral taxation of spousal earnings, such

policy should produce a non-trivial employment gain. Any such gain can produce a double advantage because it helps reduce poverty and, if external child care is of high quality, it may have positive effects on child stimulus. High quality child care is also cost efficient in the sense that more female employment together with higher lifetime earnings will enhance the revenue base.

All told, policy that combines paid leave through the child's first year with affordable high quality external care should yield important dividends in terms of homogenizing children's school preparedness. A major policy dilemma presents itself with regard to design. Since we know that the returns are exceptionally high for less privileged children, a simple cost-benefit calculus would suggest a targeted approach. What, then, would recommend a broad universal model?

In the first place, one should keep in mind the implicitly dual function of child care: supporting mothers' employment and child socialization. There is also another equity issue at stake. Given the socioeconomic importance of parenting, there is a clear case for redistribution in favour of *all* parents alike, rather than redistribution from some parents to others.

This brings us to a second standard argument in favour of universalism, namely that broad citizen support for the policy is considered essential for adequate financing. A third important consideration lies in the high transaction costs and difficulties of identifying need. Targeting low income families may be fairly simple to administer, but learning deficits are also powerfully related to family 'culture' which is a dimension that is virtually impossible to identify by any public bureaucracy.

At the end of the day, the choice for or against targeting will depend very much on our aspirations regarding skill homogenization. If our aim is limited to 'bringing up the rear', which is how one might describe US policy in this regard, there is a better case for targeting than if we pursue a more general goal of minimizing, across-the-board, the impact of inequalities on children's opportunities. The possible shortcoming of a universal approach is that it may not succeed fully in 'bringing up the rear'. Truly disadvantaged children are likely to require an additional effort and this suggests that universal designs may need to be coupled with some form of interventions.

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**REFERENCES**


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- Andersson, B., Effects of day care on cognitive and socio-emotional competence of 13-year old Swedish schoolchildren, *Child Development*, 63, pp. 20-36, 1992.
- Barnett, W. and Belfield, C., Early childhood development and social mobility, *The Future of Children*, 16, pp. 73-98, 2006.
- Blau, D., *The Child Care Problem – an Economic Analysis*, New York, Russell Sage, 2001.
- Bowles, S., Gintis, H. and Osborne, M., The determinants of earnings: A behavioural approach, *Journal of Economic Literature*, XXXIX, pp. 1137-1176, 2001.
- Bjorklund, A., Jantti, M. and Solon, G., Influences of nature and nurture on earnings variation, pp. 145-164, in S. Bowles, H. Gintis and M. Osborne (eds.), *Unequal Chances*, New York, Russell Sage, 2005.
- Carneiro, P. and Heckman, J., Human capital policy, in J. Heckman and A. Krueger, *Inequality in America*, Cambridge, Mass, MIT Press, 2003.
- Esping-Andersen, G., Garfinkel, I., Jui Han, W., Magnuson, K., Wagner, S. and Waldfogel, J., Child care and school performance in Denmark and the United States, *Children and Youth Services Review*, 2011.
- Esping-Andersen, G. and Myles, J., The welfare state and redistribution, in W. Salverda, B. Nolan and T. Smeeding (eds.), *The Oxford Handbook of Economic Inequality*, Oxford, Oxford University Press, 2009.
- Esping-Andersen, G., *The Incomplete Revolution*, Cambridge, Polity Press, 2009.
- Esping-Andersen, G. (with Gallie, D., Hemerijck, A. and Myles, J.), *Why We Need a New Welfare State*, Oxford, Oxford University Press, 2002.
- Gregg, P. and Wadsworth, J., Everything you ever wanted to know about worklessness and polarization at the household level but were afraid to ask, *Oxford Bulletin of Economics and Statistics*, 63, 2001.
- Gustafsson, S. and Kenjoh, E., New evidence on work among new mothers, *European Review of Labour and Research*, 10, pp. 34-47, 2004.
- Hyslop, D., Rising U.S. earnings inequality and family labor supply: the covariance structure of intrafamily earnings, *American Economic Review*, 91, 4, pp. 755-77, 2001.

Immervoll, H. and Barber, D., *Can parents afford to work?*, OECD-DELSA Working paper, no. 10, 2005.

Kammerman, S. B., Neuman, M., Waldfogel, J. and Brooks-Gunn, J., *Social Policies, Family Types, and Child Outcomes in Selected OECD Countries*, Paris, France, OECD, Working paper, 2003.

Kangas, O. and Ritakallo, V., *Social policy or structure? Income transfers, socioeconomic factors and poverty in the Nordic countries and France*, *LIS Working Paper*, 190, 1998.

Karoly, L., Kilburn, R. and Cannon, J., *Early childhood interventions: Proven results, future promise*, Santa Monica, CA, RAND Corporation, 2005.

Katz, L. and Autor, D., *Changes in the wage structure and earnings inequality*, pp. 1464-1555, in O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics*, volume 3A, Amsterdam, Elsevier, 1999.

Klevmarken, A., *Microeconomic analyses of time use data. Did we reach the promised land?*, Unpublished paper, Department of Economics, Uppsala University, (May 15) 1998.

Preston, S., *The value of children*, pp. 263-67, in D. Moynihan, T. Smeeding and L. Rainwater (eds.), *The Future of the Family*, New York, Russell Sage, 2004.

Ruhm, C., *The economic consequences of parental leave mandates*, *Quarterly Journal of Economics*, 113, no. 1, pp. 285-317, 1998.

Simonsen, M., *Provision and costs of high quality day care and female employment*, Unpublished paper, Department of Economics, Aarhus University, (April) 2005.

Solon, G., *Intergenerational Mobility in the Labor Market*, pp. 1761-1800, in O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics*, volume 3A, Amsterdam, Elsevier Science, 1999.

Waldfogel, J., Han, W. and Brooks-Gunn, J., *The effects of early maternal employment on child cognitive development*, *Demography*, 39, pp. 369-92, 2002.

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