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**Social Mobility, Life Chances, and the
Early Years**

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Social Mobility, Life Chances, and the Early Years

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Editorial Note

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Abstract

It is widely agreed that the early years are a particularly important time for efforts to increase social mobility, because a good deal of inequality is already apparent by the time children start school, and because children's development may be less amenable to change after they enter school. But it is less clear how much policies can reduce inequality in the early years, or what policies might be most effective, given the multiple influences on development in the early years and given the complex effects of policies. In this paper, I review what we know from research about what affects development in the early years and examine the current UK policy framework in light of that research. I then make recommendations for priorities for next steps to improve social mobility and other desired outcomes in the early years and thereafter.

We know a good deal from research about what quality means, and about what types of experiences are best for children. The research points to some clear next steps in early years policy. These include: extending paid parental leave to 12 months; offering a more flexible package of supports to families with children under the age of 2 or 3; providing high-quality centre-based care to 2 year olds, starting with the most disadvantaged; and providing a more integrated system of high-quality care and education for 3 to 5 year olds.

JEL number: D1, J1, J2.

Key words: Social mobility, parental leave, child care, early years.

I. Why the early years?

‘If the race is already halfway run even before children begin school, then we clearly need to examine what happens in the earliest years.’

(Esping-Andersen, 2004)

‘Like it or not, the most important mental and behavioural patterns, once established, are difficult to change once children enter school.’

(Heckman and Wax, 2004).

These statements summarize the two main reasons why the early years are a particularly important time for efforts to increase social mobility – a good deal of inequality is already apparent by the time children start school, and children’s development may be less amenable to change once they enter school (see also Feinstein, 2003; Heckman and Lochner, 2000; Heckman and Masterov, 2004a; Phillips, Crouse, and Ralph, 1998). But, as compelling as these statements are, they do not tell us how much policies can reduce inequality in the early years, or what policies might be most effective.

A host of studies, both in the US and the UK, have shown that there are multiple influences on development in the early years. These influences can be assigned to three main categories: child endowment; parents and the home environment; and preschool care and education.

So, although preschool care and education has been shown to effectively boost children’s learning, not all the differences in children’s attainment at school entry are due to differences in preschool care and education. Children start life with different endowments – of health, temperament, and so on. Some of these differences are due to genes, some to environmental effects (including differences in the pre-birth environment), and some to gene-environment interactions. A second important set of influences has to do with parents and the home environment (community environments may also play a role, but these effects are likely to operate indirectly through their influence on parents and the home environment). Children are affected by how much stimulation parents provide and how sensitive their care is. These aspects of parental care in turn are affected by income and financial hardship, the parent’s own endowment with respect to health, ability, and so on, the parent’s mental health, and the number

of, and role played by, other family and household members (siblings, other adults, and so on).

Ideally, we would like to know from research how much each of these influences matter, and how amenable they are to policy intervention. But research is rarely able to precisely identify the exact share of variation due to different influences, and estimating policies' effects can be difficult as well. A general finding is that although both parental care and preschool care and education play a role in facilitating or hindering children's development in the early years, what parents do generally matters more than what preschools do. At the same time, however, another general finding is that interventions that provide high-quality care and education to children are more effective in changing outcomes, particularly in the cognitive domain, than interventions aimed at improving home environments and parental behaviour. Thus, although parenting may be more important, interventions to improve non-parental care and education may be more effective.

These considerations also suggest that when we think about policies to promote development in the early years, we need to think about how they affect each of these three sets of influences. Policies may moderate the effect of a child's endowment on development (by for example identifying and providing early treatment for a disability or health problem), may enable or encourage parents to provide a more nurturing and stimulating home environment, (by reducing financial hardship or addressing mental health problems) or may improve the care and education the child receives outside the home (by moving children into care or education earlier, or for more hours, or by improving the quality of care and education they receive). The concept of multiple influences also means that we should not expect one type of intervention to address all the differences in children's attainment at school entry – multiple causes are likely to require multiple remedies. And, we may not yet have policy instruments to address all the sources of variation that exist.

II. What outcomes?

The focus of this paper is on what we know about how policies in the early years can promote more social mobility, breaking or at least mitigating the links that currently exist between the position of a child's family of origin and his or her eventual life position. However, stating that social mobility is the goal does not make clear what outcomes are of concern. Although often the most emphasis tends to be placed on cognitive development, ideally we would like to see more equality across all three of the main domains of child well-being: child health; child cognitive development; and child social and emotional

development. Moreover, as a practical matter, we are coming to learn more about how problems of child health or social and emotional development may hinder disadvantaged children's school readiness and eventual school achievement (see Rouse, Brooks-Gunn, and McLanahan, in press; Rothstein, 2003). Thus, even if we wish to prioritize policies that promote equality of school attainment, we should at least be aware of their potential effects on child health and child social and emotional development.

We also need to be aware of other priorities for policy-making. I highlight five, each of which is an important goal for public policy and directly or indirectly related to social mobility. First, promoting social inclusion (or reducing social exclusion) is an explicit goal of the current government and may also be key to promoting better outcomes for the disadvantaged (if for instance there are beneficial composition or peer effects of participating in programs with more advantaged children). Second, reducing child poverty is also an explicit goal of government and again may be key to promoting better outcomes through reducing financial hardship for parents and providing extra resources that could be devoted to child learning or development. Third, increasing parental employment in low-income families is another explicit goal of government and may also support better outcomes for disadvantaged children in various ways (boosting family income, promoting social inclusion, improving family routines, and so on) although it may also pose risks for some children (e.g., very young children placed in poor quality care for long hours). Then there are two wider objectives of public policy, not specific to this area but more cross-cutting – supporting parental choice, and promoting gender equity. These outcomes are relevant because they may be affected by early years policy, but also because they may themselves influence the effectiveness of policy. In the early years area, where the match between a caregiver or program and the needs of the individual child is key, choice in decisions about work and child care arrangements becomes particularly important (see, for instance, Alakeson, 2004). Moreover, families who choose what program their child participates in may be more satisfied and may also be able to exert more influence over that program's quality, although parents may not always be counted on to choose a high-quality program. Gender clearly plays a role as well. Although we may talk about the role of parents, the bulk of the caregiving in the early years is done by mothers, and policies in the area of parental leave and child care and education can have a powerful impact on their position in the labour market, and in the home.

Keeping these other policy objectives in mind, social mobility, and in particular social mobility with regard to cognitive attainment, clearly merits special attention. The UK (like the US) has high levels of inequality, and high correlations between outcomes for parents and outcomes for their children

(Blanden, Gregg, and Machin, 2003). For example, the Gini coefficient for quantitative literacy is .121 in the UK (and .133 in the US), vs .071 in Finland, .072 in Denmark, .081 in Sweden and Norway, .083 in Germany, and .097 in Italy (Esping-Anderson, 2004). Countries where fathers' educational attainment is highly correlated with children's cognitive scores have higher rates of cognitive inequality. The implication is that policies that would mitigate the effects of parents' attainment on children's outcomes would lead to a more equal society. But this does not tell us how important parents' attainment is (relative to other factors) or which policies might be most effective in breaking this link.

Recent research by Esping-Anderson (2004) suggests that preschool programs may be particularly consequential. Esping-Anderson (2004) shows that the Nordic countries have been the most successful in breaking the link between parental attainment and children's outcomes and makes the case that the provision of universal and high-quality child care has made the difference. As Esping-Anderson (2004) notes, the period when inequality in children's cognitive attainment decreased roughly corresponds to the period when universal child care came into place. And certainly the hypothesis that universal enrolment into high-quality child care leads to more equal outcomes than enrollment into care where the quality is correlated with parent's ability to pay makes good sense. However, it is possible that other things changed at the same time -- other aspects of pre-school or school-age experience having to do with poverty, corporal punishment, teaching practices within schools -- and that these other changes played at least some role. Without test scores on children at various ages, and samples of children who experienced different policy regimes, we can not know for certain what role preschool played and what role was played by other factors.

In a similar vein, in a recent review on 'Inequality in early childhood care and education' in the US, Marcia Meyers, Dan Rosenbaum, Chris Ruhm, and I documented large disparities in preschool enrolment between children of less and more educated parents (as well as between children from low and higher income families) and argued that children from the most disadvantaged families are 'doubly disadvantaged' -- less likely to receive stimulation and needed resources at home, and less likely to attend the type of care that we know promotes school readiness (Meyers et al., 2004). If these children also attend lower-quality programs, even when they do attend preschools, then they could in fact be 'triply disadvantaged'. The logic of this argument is compelling, but does not tell us how large a role preschool care and education could play, how large a role could be played by other policies, and how much variation might remain even after our best policy efforts. Quantifying the impacts of policies

and decomposing their influence on differences in child attainment at school entry is challenging

Recently, Katherine Magnuson and I conducted some back of the envelope estimates of how much early childhood education policy reforms could narrow the gaps in school readiness between minority and white children in the US (Magnuson and Waldfogel, in press a). We concluded that early childhood education programs such as Head Start and universal prekindergarten are probably already playing an important role in narrowing gaps between Hispanic and white children, and between African-American and white children. We also concluded that the effect of program expansions will depend on the quality of the programs implemented as well as the children they reach. Our estimates indicate that reforms to current early education policies could reduce gaps in reading readiness at school entry by between 0 and 52 percent, depending on the policy scenario and the particular group involved. These analyses confirm that there is an important role for early childhood education policy to play, but that there is a role for other policies as well. There is no one magic bullet.

With these considerations in mind, in this paper, I review what we know from research about the early years. I then critically assess the policy framework in the UK as it stands as of today (early November 2004) and then make recommendations for next steps to improve social mobility and other outcomes in the early years.

III. What we know from research

A. Pregnancy and the first year of life

A host of studies have found that parental leave is associated with better maternal and child health, with specific findings for: lower maternal depression (Chatterji & Markowitz, 2004); lower infant mortality (Ruhm, 2000; Tanaka, in press); fewer low birth-weight babies (Tanaka, in press); more breast-feeding (Berger, Hill, and Waldfogel, in press); and more use of preventive health care (Berger et al., in press). The research is also clear that unpaid leave does not have the same protective effects (Ruhm, 2000; Tanaka, in press), which makes sense, given that parents are less likely to use leave if it is not paid.

Research has also provided a clear set of findings with regard to parental employment and child care in the first year of life. The single most important finding, which cuts across virtually all studies that have been able to assess it, is that quality of care – in particular, sensitivity and responsiveness to the child – is crucial (see reviews in Shonkoff and Phillips, 2000; Smolensky and Gootman, 2003). The other clear finding is that maternal employment in the

first year, particularly if begun early and full-time, is associated with poorer cognitive development and more behaviour problems, for at least some children (see Brooks-Gunn, Han, and Waldfogel, 2002 for the US; and Gregg, Washbrook, Propper, and Burgess, in press for the UK; see also reviews in Shonkoff and Phillips, 2000; Smolensky and Gootman, 2003). These effects vary by the type and quality of child care, the quality of parental care, and family income. For example, in analyses of the ALSPAC cohort of children from the Bristol area, among families where mothers worked full-time in the first 18 months, children had better outcomes if they were in formal (paid) care than if they were in informal (unpaid) care (Gregg et al., in press).

B. Children age 1 and 2

Looking first at cognitive and behavioural outcomes, the over-riding message of the research is that quality of care matters (Blau, 2001; Shonkoff and Phillips, 2000; Smolensky and Gootman, 2003; Vandell and Wolfe, 2000). For young children, what defines quality is that the care they receive – whether from a parent or a non-parental caregiver – is sensitive and responsive to their individual needs. This type of process quality is hard (and expensive) to measure, as it requires in-person observation of the child and caregiver, so often researchers rely on more easily measured structural characteristics, such as caregiver education or caregiver-to-child ratio, which have been found to be associated with process quality and child outcomes.

The role of quality can be seen in the research on maternal employment and child care. The weight of the evidence suggests that there are no adverse effects of maternal employment on cognitive development when children are age 1 and 2, but that there may be adverse effects on behaviour problems if children are in poor quality child care for long hours (Brooks-Gunn, Han, and Waldfogel, 2002; NICHD Early Child Care Research Network (ECCRN), 2003; Ruhm, 2004).

Does this mean that if the quality of care is good enough, there are no adverse effects on social and emotional development if children start care at the age of 1 or 2? The evidence from high-quality interventions, which have been experimentally evaluated, suggests that the answer is yes. A large body of research from such experimental studies in the U.S. shows that high-quality child care for children in this age range produces cognitive gains, with no adverse effects on behaviours (Currie, 2001; Karoly et al., 1998; Waldfogel, 2002). Indeed, many of the programs' most lasting gains – reductions in delinquency and crime, reductions in teen births – were in the area of social and emotional development (Carneiro and Heckman, 2003). These experimental programs were mainly targeted to disadvantaged children, and produced the largest effects for the most disadvantaged. For example, the Infant Health and

Development Program (IHDP), an early intervention program for low-birthweight children which provided centre-based care for children starting at the age of 1, boosted IQ at age 3 by 20 points for children whose mothers had less than a high school education, 10 points for children whose mothers had graduated high school only, and 0 points for children whose mothers had graduated college (Brooks-Gunn et al., 1992; Ramey and Ramey, 2000). The evidence from the U.S. experiments also indicates that centre-based programs for children in this age range boost maternal education, employment, and earnings. For example, the Abecedarian program, an early intervention program that provided centre-based care to disadvantaged children starting in the first year of life, raised mothers' earnings by an average of \$3,750 per year (Masse and Barnett, 2004).

Because the experimental programs were targeted to disadvantaged children, we lack experimental evidence as to whether child care for 1 or 2 year-olds has adverse effects on behavioural outcomes for more advantaged children. As noted above, observational studies (such as NICHD ECCRN, 2003 and Sammons et al., 2003) did find that children who entered care earlier had more behaviour problems. The NICHD ECCRN (2003) study was not able to pin down an age at which entry into child care would not pose this risk (most of their sample had entered non-parental child care in the first year of life, making it difficult to isolate large groups who did not begin child care until age 2 or age 3). The U.K.'s EPPE study (which I discuss further below) did address this question and found that the effects on behaviour problems were largest for children who began care before the age of 2 (Sammons et al., 2003). But, there is a good deal of disagreement as to how consequential such behaviour problems are for children's school readiness or later success in life. While some argue that even a small elevation in behaviour problems should be of concern, others note that children who attended a lot of care from an early date do not typically have clinically meaningful levels of behaviour problems and that the behaviours they do show do not inhibit their school readiness or progress through school.

With regard to health outcomes, young children attending group child care do have more illnesses (Gordon, Kaestner, and Korenman, 2004; Meyers et al., 2004). Safety is also a potential concern, particularly in low-quality care, although rates of injury and abuse are actually lower in child care than in children's own homes (Currie & Hotz, in press; Waldfogel, in progress). Evidence from the US Early Head Start program suggests that involvement in child care may be protective in terms of reducing the use of physical punishment (spanking) by children's parents (Love et al., 2002).

C. Children age 3 to 5

Again, to begin with effects on cognitive and behavioural outcomes, the research finds no adverse effects of maternal employment in these years on cognitive development, but some effects on child behaviours if children are in poor quality care for long hours (Brooks-Gunn et al., 2002; NICHD ECCRN, 2003). Turning to child care, high-quality preschool programs for disadvantaged children produce substantial cognitive gains (Currie, 2001; Karoly et al., 1998; Waldfogel, 2002). Such programs have no adverse effects on child behaviour outcomes and indeed have been found to reduce later problems such as crime (Carneiro and Heckman, 2003; Donohoe and Siegelman, 1998). Such programs may also boost mothers' education, employment, and earnings. Even run-of-the-mill preschool programs have been found to boost children's school readiness, although of course not as much as the high-quality model programs (NICHD ECCRN and Duncan, 2003; see also reviews in Magnuson and Waldfogel, in press a; Meyers et al., 2004). I discuss the most recent evidence on such programs below.

With regard to health outcomes, there is some evidence that maternal employment may have adverse effects on child health if it is not associated with income gains (Morris et al, 2001). There is also evidence that maternal employment when children are age 3 to 5 may lead to an increased risk of child obesity (Anderson, Butcher, & Levine, 2003; Ruhm, 2003). There are some adverse effects of group child care on child health, and some concerns about safety, particularly in low-quality care (Meyers et al., 2004). But, child care may also be protective, reducing physical discipline (spanking) and domestic violence (Magnuson & Waldfogel, in press b).

It is worth highlighting results from two recent large-scale studies that provide new evidence on the effects of preschool for 3 to 5 year-old children. These studies are important because they examined programs that are widely available to children, and not just model or demonstration programs. In the US, the Early Childhood Longitudinal Study- Kindergarten Cohort (ECLS-K) is following a large cohort of children who were in kindergarten in the fall of 1998. Analyses of these children (Magnuson, Meyers, Ruhm, and Waldfogel, 2004; Magnuson, Ruhm, and Waldfogel, 2004) have found that preschool raises school readiness and also lowers retention (i.e., children being 'held back' and required to repeat kindergarten). In these analyses, preschool includes what parents call nursery school, preschool, day care, or pre-kindergarten (Head Start programs are categorized separately). Analyses that look at different types of preschool find that effects are particularly large for children who attended a pre-kindergarten program; these children score better in reading and math (effect size about .16 at school entry) and are about 25% less likely to be retained (Magnuson, Meyers, Ruhm, and Waldfogel, 2004). Effects are larger and longer-lasting for

disadvantaged children (children with less-educated parents, with families speaking a language other than English at home, or with low-income families or families on welfare). Effects are also larger for children who attended more hours of pre-kindergarten (full-day rather than half-day), although this finding was specific to pre-kindergarten (that is, more hours of other types of preschool programs were not found to confer added benefits). But, longer hours in preschool (including pre-kindergarten) are also associated with more behaviour problems, although this is not the case for children who attended pre-kindergarten in the same school as their kindergarten (Magnuson, Ruhm, and Waldfogel, 2004).

Results from a large-scale study of children attending preschools in the UK are for the most part very similar. In the UK, the study of Effective Preschool Provision (EPPE) is following a large sample of children from preschool to school entry, and beyond. Analyses show that children who attend preschool enter school at a cognitive advantage (effect sizes .30 to .45 of a standard deviation; charts E3-E5 in Sammons, Sylva, Melhuish, Siraj-Blatchford, Taggart, and Elliot, 2002). The longer children had been in preschool, the greater the advantage (effect sizes for pre-reading, early number, and language range from .38 to .63 for those attending 2-3 years, or >3 years; chart 4.1 in Sammons et al., 2002). Children who began preschool at age 2 were ahead of children who began at age 3, and maintained that gain at school entry. But this was not true for the small number of children who began before age 2. The EPPE researchers have also found that children who attend preschool enter school with better social and behavioural development, except on the dimension of antisocial or worried behaviour where they score slightly worse (effect size .10; Sammons et al., 2003). More detailed analyses indicate that both the type of care and time in care mattered: the only groups with significantly elevated levels of antisocial or worried behaviour consisted of children who attended local authority day care, or children who attended more than 3 years of preschool (this latter group tended to have been in group care prior to preschool and thus often had been in centre-based care starting before age 2 and sometimes as early as age 1) (Sammons et al., 2003, Table 5.4 and 5.5). For children who attended a type of care other than local authority day care, or who had attended 3 years or less, there were no significant effects on antisocial or worried behaviour. With regard to hours per day, in contrast to the findings for prekindergarten in the US but similar to the findings for other types of preschool programs, the EPPE study found no added cognitive benefits of attending full-day rather than half-day. Thus, the cognitive benefits of preschool were evident even if children only attended part-time.

Four additional findings from EPPE are worth highlighting because of their relevance to policy. First, as in the ECLS-K, the EPPE team found that

disadvantaged children gained the most from attending preschool. In the case of EPPE, this applied to children at risk of being identified for special educational needs, children for whom English was an additional language, and children from some ethnic minority groups. Second, as was found in ECLS-K for the U.S., the quality and effectiveness of care on offer currently in the UK is uneven. The EPPE study has produced very clear findings as to what types of care are most effective in boosting children's school readiness. For instance, centres that integrated care and education provision and nursery schools were found to be particularly effective, with especially beneficial effects for children from low-socioeconomic status families. So too were programs that had more highly qualified staff and managers (i.e, with level 5 qualifications). Third, EPPE found some indications that there may be composition effects. For instance, children were found to make more progress in pre-reading if they attended centres with more children from highly educated families. Fourth, EPPE provides some evidence that preschool experience can reduce differentials between children with different backgrounds. Thus, the EPPE group found that the impact of child, family, and home environment factors was weaker at school entry than it had been at age 3 for some of the cognitive outcomes (pre-reading and early numbers; Table 2.2. in Sammons et al., 2002), although not for social and behavioural outcomes.

D. Parenting support

Parenting support programs are very diverse and the evidence on their effectiveness in changing parental behaviours and improving child outcomes is very varied as well (see reviews in Brooks-Gunn and Markman, in press; Desforges, 2003; Gomby et al., 1999; Harker and Kendall, 2003; Karoly et al., 1998; Magnuson, 2004; Neuman and Dickinson, 2003; Sweet and Appelbaum, 2004). With regard to cognitive outcomes, there is little evidence that parenting support programs in and of themselves improve children's school readiness, although there are exceptions in the area of early literacy (for example, in the US, a program developed by Whitehurst that emphasizes dialogic reading (reading that involves a dialogue between the parent and the child) has been found to raise children's language scores (see Whitehurst et al., 1994, 1999; Whitehurst and Lonigan, 1998), while in the UK, the Peers Early Education Partnership (PEEP) program, a home-based literacy program for families with 3 to 5 year olds was found to improve school readiness (see Evangelou and Sylva, 2003). There is also little evidence that parenting support programs improve social or emotional outcomes for children (the exception here is programs specifically targeted to families with children with severe behaviour problems, which have been found to lead to improvements; see Webster-Stratton, 1998; Webster-Stratton, Reid, and Hammond, 2001; Webster-Stratton and Taylor, 2001). The area where parenting support programs for families with young children have been found to be most effective is with regard to health-related

outcomes. For instance, high-quality home visiting programs beginning in pregnancy and continuing post-birth have been found to reduce the risk of child maltreatment (Karoly et al., 1998).

One challenge in evaluating the effectiveness of parenting support programs is that often parenting support is offered in conjunction with other types of support. In the early years, parenting support is often offered in conjunction with centre-based care. Program designers believe that getting parents involved and supporting parents increases the effectiveness of centre-based programs. But the fact that programs are combined makes it difficult to identify the unique effects of parenting support as distinct from the centre-based care. The few studies that have specifically tackled this question have produced mixed results (see reviews in Brooks-Gunn and Markman, in press; Ramey and Ramey, 2000; Sweet and Appelbaum, 2004). In sum, then, the evidence in this area is weak, but the jury is still out as to the role that parenting support programs might play in the UK context.

IV. Current policy framework

Early years policy is changing rapidly, as policy makers have recognized its potential to advance social mobility and other desired outcomes. Policy makers have been quick to respond to the research in this area and have drawn on it in designing new policy initiatives (see, for example, the Five-Year Strategy for Children and Learners, Department for Education and Skills, 2004). A comprehensive package of further reforms – a ten-year strategy for early years and childcare – is due to be published later this month in the November 2004 Pre-Budget Report.

Here, I briefly review the policy framework in the UK as it exists currently (early November 2004). Understanding this context and how well it conforms to what we know from research is necessary before moving on to discussing next steps for policy.

A. Parental leave

Maternity leave provisions have been expanded in recent years and now offer 12 months of job-protected leave to new mothers who were in work prior to the birth and meet qualifying conditions, but only 6 months of these are paid (6 weeks at 90% of prior earnings and the other 20 weeks at a flat rate, currently £100/week). In addition, the qualifying service period has been reduced so that more mothers who were in work qualify. Mothers who were not in work pre-birth may receive other forms of support if they are low-income, like other low-income families with children. In addition, the Sure Start Maternity Grant,

introduced in 2000, offers a one-time payment (currently, £500) to low-income new mothers to help with the purchase of essential items for the baby. All families with a newborn benefit from a 'baby tax credit' introduced in April 2002, and all babies born after September 2002 will receive a £250 endowment in the Child Trust Fund, with a higher endowment (totalling £500) for low-income families starting in 2005.

Surveys of new parents consistently find that mothers tend to take as much leave as they can, but that the family's income and the availability of paid leave matter: lower-income mothers tend to return when paid leave ends, while higher-income mothers tend to return later, when the period of job-protected leave ends (Burgess, Gregg, Propper, Washbrook, and the ALSPAC Study Team, 2002; Hudson, Lissenburgh, and Sahin-Dikmen, 2004; author's estimates from Millennium Cohort Survey).

Statutory paternity leave (2 weeks, paid at the same flat rate as statutory maternity pay) was introduced in April 2003. Survey evidence indicates that prior to that, only about half of new fathers worked for firms that offered paternity or parental leave (author's estimates from Millennium Cohort Survey). A high share of these fathers – over 80% – made use of this leave. Fathers also use other types of leave (sick leave, annual leave, etc.) to take time off after the birth of a child. Overall, 75% of new dads take some leave, with leave more likely if the child is a first-born. But again, income matters: fathers are more likely to take leave when they have higher incomes. The current situation is better, in that all fathers now have the right to 2 weeks of statutory paternity leave. However, it is likely that income differentials in the use of leave persist.

The UK also has a parental leave statute introduced in 1999 that allows parents to take up to 13 weeks unpaid leave sometime between the birth of a child and the child's 5th birthday (this is extended to 18 weeks which can be taken up to the child's 18th birthday in the case of children with disabilities). There is no statutory pay for this leave, but employees may use paid leave from other sources such as annual leave (if available). Awareness and use of parental leave is apparently fairly low (see, for instance, Hudson, Lissenburgh, and Sahin-Dikmen, 2004, who found that only 25% of new parents in their survey of families with a new birth in January 2001 were aware of the availability of parental leave).

A newer initiative (implemented in April 2003) is the right for parents of young children (or children with disabilities) to request to work part-time or flexible hours. According to evaluations one year after the policy was implemented (Camp, 2004; Maternity Alliance, 2004; Work Foundation, 2004), there is apparently high awareness of this policy and high take-up, particularly among

mothers; however, not all requests are granted, and some employers argue that this benefit should not be limited to parents with young children, as this has the potential to create equity problems in the workplace.

B. Child care and education for the under 3s

There have been many initiatives to improve access to care and quality of care both for the under 3s and for older preschool age children, with particular attention to the disadvantaged. These include the National Child Care Strategy, Sure Start, Children's Centres, Early Excellence Centres, Neighbourhood Nurseries, and Children's Centres. However, places are not guaranteed for the under 3s, as they are for children age 3 and 4, although there is a pilot initiative to provide centre-based care for disadvantaged 2 year olds.

We know little about the quality of care for the under 3s. Provision is very diverse, and often informal. Among children under the age of 1, 37% are in child care or education and the vast majority of this is informal (30% of under 1s are in informal care versus 7% in formal care). Among children under the age of 2, 78% are in child care or education, but again much is informal (36% use informal only, 29% a mix of formal and informal, and 13% formal only) (figures for under 1s from author's estimates from the Millennium Cohort Survey; figures for under 2s from Woodland, Miller, and Tipping, 2002). Care for children in this age range is expensive: full-time care for a child under 2 averages £134/week for nursery and £120/week for childminder) and parents bear a large share of the costs (about 75%) (Daycare Trust, 2004).

C. Child care and education for the 3 to 5s

A publicly funded part-time nursery place is now guaranteed for all 3 and 4 year olds. Participation rates are very high – with 96% of 3 or 4 year olds attending during the prior week (Fitzgerald et al., 2002; Bell and Finch, 2004). Rates are lower for children of manual workers (93%), low-income families (93%), and ethnic minorities (90%), and these children attend different types of care (nursery classes, rather than playgroups or pre-schools) although less so than they did formerly (Fitzgerald et al., 2002; Stewart, in press).

We also know something about parents' views. According to the 6th Survey of Parents of Three & Four Year Olds, conducted from the summer of 2001 to the spring of 2002 (Bell and Finch, 2004), just over half of parents feel there are not enough nursery education places in their local area, and about 40% feel there is not enough information provided to help parents choose a place (this latter problem is particularly likely to be reported by parents of younger children). However, only 15% of parents feel their child is getting too little education, a significant improvement over prior years (this share was 23% in 1997 and 19% in 2001). With regard to multiple arrangements, a quarter of children attend

more than 1 provider, although most parents say this is not a problem. Overall, a quarter of parents surveyed in 2000 and 2001 said cost restricted how much nursery education their child received (30% of those with incomes below £10,000 vs. 23% of those with incomes of £30,000 or more) (Fitzgerald et al., 2002). Among those not using care at all, about half would have liked to (11% said cost was a factor; 45% could not find a place or their child was too young). And, among those not using care 5 days a week, 28% said this was because they could not afford more care.

D. Parenting support

Parenting support is provided through several large-scale government programs, as well as through numerous smaller-scale or private projects. For instance, Sure Start, the government's program for young children living in the poorest communities, has a large parenting support component, which includes home-visiting, parent education, and parent support groups. An evaluation of Sure Start is underway (for preliminary findings, see National Evaluation of Sure Start, 2004; Stewart, in press). In the voluntary sector, programs such as Home Start provide supportive services to parents of children under the age of 5, delivered through networks of community-based volunteers; however, nearly half of parents say that they do not know where to go for support in their area (Harker and Kendall, 2003).

V. Where should we go from here?

In the following sections, I draw on what we know from research to identify key next steps for policy in the early years, keeping in mind the several objectives of policy: to promote social mobility by improving child outcomes in the areas of cognitive development, social and emotional development, and health; while also promoting (or at least not adversely affecting) social inclusion, poverty reduction, parental employment, parental choice, and gender equity. In some instances, these objectives may be at odds, but it is important to keep them all in the frame so that where there are trade-offs, these can be explicitly considered.

It is easy to recommend a host of policies but of course, all policies have costs, and it is necessary to prioritize among them. For this reason, I list recommended next steps in order of priority, and also offer some descriptive information as to likely costs and benefits of the highest-priority items. However, a full cost-benefit analysis is beyond the scope of this paper. (For examples of recent cost-benefit analyses in this area, see Heckman and Masterov, 2004b; PricewaterhouseCoopers, 2004).

A. Extend parental leave

Given the evidence as to the health benefits of paid maternity leave and the evidence that low-income women tend to return to work when paid leave ends, the first priority in the parental leave area is to extend paid leave to the end of the first year of life, so that lower-income families can take advantage of it. Specifically, this would entail an additional 26 weeks of maternity leave, which could be paid at a flat rate (the current rate is £100/wk) and could be pro-rated if a mother returns to work part-time. Consideration should also be given to improving financial support for low-income mothers who were not in work pre-birth, as they currently receive little support above and beyond that provided to low-income families with older children.

However, the extended leave need not be limited to mothers (which is why I use the term parental leave; see also Moss and Deven, 1999). Particularly as leave extends from 6 to 12 months, there is no strong reason to favor maternal care over paternal care. And there are other reasons (such as gender equity) for making leave extensions gender neutral. Thus, paid leave of up to 12 months should be available to either the mother or father, with parents having the choice as to how to divide the leave between them. Extending paid parental leave to 12 months will be costly, as it would require an additional 6 months pay to mothers on leave (or fathers, if they elect to use it in place of mothers). And, if mothers take the majority of leave, extending leave could have costs in terms of negative repercussions on the careers of the women taking the extra leave, hiring or pay for women overall, and gender equity in the home or labour market (although these risks would be lessened if men also had the option to take the leave). However, the benefits would be very substantial: reduced infant mortality (based on results from a study of parental leave and child health across OECD countries, extending paid leave from 6 to 12 months in the U.K. is estimated to reduce overall infant mortality by 6.8% and post-neonatal mortality by 10.5%; Gregg and Waldfogel, in press; Tanaka, in press); improved child cognitive and social and emotional development; longer breast-feeding; and improved maternal and child health. In addition, extending parental leave would produce savings in child care costs, and would be responsive to what parents say they want.

The second priority, given the evidence as to benefits of leaves that extend beyond the first year of life as well as evidence as to possible adverse effects of long hours of non-maternal child care on behaviour problems, is to consider extending job-protected leave beyond the first year, with some financial support so that low-income families can take advantage of it. This might entail an additional 26 or 52 weeks of leave, which could be paid at a flat rate, again pro-rated if the mother returned part-time, or could be supported through other changes to the tax and benefit system, for example, through early childhood

benefits or other benefits targeted to families with young children (discussed further below).

Third, it is important to monitor the April 2003 initiatives that gave parents of young children the right to request part-time and flexible hours and that gave fathers paternity leave rights, and to strengthen these if necessary. Research on these initiatives is still underway, but the research to date suggests that expansions are likely to be needed, to promote child well-being and also to respond to issues of parental choice and gender equity.

B. Improve the quality of care & education for the under 3s

As we saw above, one of the clearest messages from research is the importance of the quality of care that children receive, particularly in the first few years of life. But the research is also clear that there is no one-size-fits-all type of care that is best of all children in this age range. Thus, I see two high priorities for next steps for this age group.

First, there is a need for a more flexible package of supports for parents, to give them a better set of choices in the first 2 to 3 years. Not all families want to use centre-based care for children under the age of 2 or 3, and for some children, less intensive forms of provision might be more suitable, particularly during the period between their 1st and 2nd birthday. One very attractive option is early childhood benefits – cash benefits (these could be £50 to £70/week) that families can use for parental care or child care or a mixture of the two (Waldfogel, 2001). Such benefits would ideally be provided universally but could also be implemented on a targeted basis, for low-income families. Obviously, such a program would be costly and could induce more mothers to stay home, undermining efforts to promote parental employment and gender equity (although Duncan and Magnuson (2003) argue that the labor supply effects would likely be small). However, flexible supports allow parents to make a choice between parental care, non-parental care, or a mix of the two (i.e. working part-time and caring part-time, or splitting child care between parents). If parents elected to provide some care themselves at least part-time, this would yield savings in child care costs. And early childhood benefits, particularly if targeted to low-income families, could boost incomes and relieve financial hardship, leading to improved child outcomes (Duncan and Magnuson, 2003).

Second, there is a need for continued support for initiatives to improve access to care and quality of care, particularly centre-based care starting at age 2 for the most disadvantaged children, either through quality-linked subsidies or direct provision. The benefits of such a policy are clear, in terms of cognitive gains to children at greatest risk of school failure and also employment effects for their mothers. There may be other benefits to children and families as well (e.g.

reductions in spanking and domestic violence). However, there are also trade-offs and tough decisions to be made here. High-quality centre-based care is costly. Targetting such care to low-income children will save money and also reach the group likely to gain the largest benefits, but if other children do not use the care, it could become segregated or stigmatized and its quality could suffer. Thus, there is a need for creative policies that bring in a mix of children. For instance, spaces in new centres could be made available to higher-income children on a fee-paying basis. There is also the challenge of how to raise quality and how to ensure that children are placed into good-quality care. As noted earlier, measuring process quality is difficult and expensive. But we know a lot from research about what structural features of care are linked with better process quality and better outcomes for children (see for instance NICHD ECCRN, 2002), and it is possible to design initiatives that boost those aspects of quality, by for example linking higher payments to providers with higher education levels and lower child-to-caregiver ratios, or only funding providers who meet specified education levels and child-to-caregiver ratios. Finally, there is also the worry that starting children in care too early might lead to behaviour problems, at least for some. But here too quality is central. So too is the number of hours children are in care. My reading of the evidence is that most children can benefit from at least part-time care starting at the age of 2, without adverse effects on social or emotional development. The case is most compelling for disadvantaged children, for whom the cognitive benefits are the largest. But I think a case can be made for offering at least a part-time place to all 2-year olds whose parents want one. By this age, most parents want their child to have at least some exposure to other children and some experience in an early learning setting (and many parents as a practical matter need at least part-time child care while they are at work). Guaranteeing at least a part-time place to all 2-year olds would support that choice and would also help equalize the quality of care that children from different backgrounds experience.

A third, less immediate priority but nevertheless important to pursue, is further research on the quality of care that children under age 3 are in currently. As discussed above, we know too little about the quality of care that young children are experiencing. This is a crucial gap, given what we know about how much quality matters.

C. Develop a more integrated system of high-quality care and education for 3 to 5s

Government policy has already done much to improve care and education for 3 to 5 year olds, but there are three additional steps that policymakers should take for this age group. The three steps are inter-related, and I would place equal priority on each of them.

One needed step is to raise preschool quality, whether through tighter standards or direct provision. The goal should be to provide a high-quality place for each child, on at least a half-time basis.

A second needed step is to build an easier and more generous system of subsidies for ‘wrap-around’ and out-of-school care for low-income families. Low-income families should be guaranteed that if they are working, child care will be free or affordable. And, the burden of paperwork should be shifted to providers, and away from parents.

Third, there needs to be greater integration of nursery or school and wrap-around or out-of-school care. Too often, families bear the burden of having to piece together different provision, in different locations. The system of care and education needs to work to make that provision more seamless, and easier from the perspective of the family.

Building a better system of care and education will be costly – it will require more money for salaries for directors and teachers, subsidies for the lowest-income families, and staff to coordinate provision. However, we know that better quality care pays dividends – gains in cognitive development, social and emotional development, and maternal employment. And efforts are already underway in each of these areas (see overviews in Cohen, Moss, Petrie, and Wallace, 2004; Stewart, in press). Serious attention is being paid to the issue of quality in the child care workforce. Options to extend child care support for the lowest-income families are being studied. And Children’s Centres are being rolled out nationwide, with part of their mission being to play just this coordinating role. The issues here are complex (a thorough discussion of how to improve quality would require a separate paper!), but what I mainly want to emphasize is that the key lesson from research is that quality needs to be central to any expanded child care initiative.

D. Parenting support

The provision of parenting support cuts across many of the areas discussed above. For instance, extensions in parental leave provide support for parental time with children and thus are a form of parenting support. So too are expansions in Children’s Centres, which will help parents locate and access high-quality child care as well as other needed services for their family. What further steps should be taken to enhance parenting support, given what we know from the research? Answering this question is difficult, because although research has shown that parenting matters, and that programs can improve parenting, the links between programs and improved outcomes for children have not often been established. For this reason, I think this is one area where further research should be the top priority. But not basic research – what is

needed is a set of studies that evaluate the impact of carefully designed interventions on desired child outcomes. The evidence from an early literacy program such as PEEP is encouraging and should be used to inform further experimentation. Children's Centres can and should be actively involved in these efforts so that model interventions can be rolled out quickly if they prove to be effective.

VI. Conclusions

As we have seen, early years policies must address multiple outcomes, promoting social mobility and improved child well-being, while also promoting other social goals (social inclusion, poverty reduction, parental employment, parental choice, and gender equity).

The bottom line message from research on the early years is that quality matters. This leads to a clear policy conclusion: policies should aim to support parents in providing good-quality care themselves, and in arranging good-quality child care.

We also know a good deal from research about what quality means, and about what types of experiences are best for children. The research points to some clear next steps in early years policy. These include:

- extending paid parental leave to 12 months;
- offering a more flexible package of supports to families with children under the age of 2 or 3;
- providing high-quality centre-based care to 2 year olds, starting with the most disadvantaged; and
- providing a more integrated system of high-quality care and education for 3 to 5 year olds.

In closing, let me just say that in focusing on the early years, I do not mean to suggest that only early years policies are important. As I said at the outset, the evidence suggests that about half the gap in school achievement is already present at school entry. While providing a powerful reason for intervening in the preschool years, this statement also implies that the gap widens further after school entry, and that indeed is true. Although it would be nice if there were an early years intervention that could inoculate children against future disadvantage, that is simply not the case. Proven early years policies can go a long way toward closing achievement gaps and promoting social mobility, and they deserve all the support we can muster for them. But so too do some policies for school-age children and youth, so we should not pit one against the other. Combating disadvantage and promoting social mobility requires

sustained efforts that begin before birth, and continue throughout childhood and adolescence. From my vantage point as an American academic, I can only applaud the commitment the British government and the British policy community has made to meeting that challenge.

References

- Alakeson, Vidhya (2004). *A 2020 Vision for Early Years: Extending Choice; Improving Life Chances*. London: Social Market Foundation.
- Anderson, Patricia, Kristin Butcher, and Philip Levine (2003). 'Maternal Employment and Overweight Children.' *Journal of Health Economics* 22(3): 477-504.
- Bell, Alice and Steven Finch (2004). *6th Survey of Parents of Three & Four Year Old Children and Their Use of Early Years Services*. Report by National Centre for Social Research for the Department for Education and Skills. Available at www.dfes.gov.uk/research/ [accessed October 22, 2004]
- Berger, Lawrence, Hill, Jennifer, and Waldfogel, Jane (in press). 'Maternity Leave, Early Maternal Employment, and Child Health and Development in the US.' Forthcoming in *Economic Journal*.
- Blanden, Jo, Paul Gregg, and Stephen Machin (2003). 'Changes in Educational Inequality.' London: Centre for Economic Performance.
- Blau, David (2001). *The Child Care Problem*. New York: Russell Sage Foundation Press.
- Brooks-Gunn, J., R.T. Gross, H.C. Kraemer, D. Spiker, and S. Shapiro (1992). 'Enhancing the Cognitive Outcomes of Low Birth Weight Premature Infants: For Whom Is Intervention Most Effective?' *Pediatrics* 89(8): 1209-1215.
- Brooks-Gunn, Jeanne, Wen-Jui Han, and Jane Waldfogel (2002). 'Maternal Employment and Child Cognitive Outcomes in the First Three Years of Life: The NICHD Study of Early Child Care.' *Child Development* 73(4): 1052-1072.
- Brooks-Gunn, Jeanne and Lisa B. Markman (in press). 'The Contribution of Parenting to Ethnic and Racial Gaps in School Readiness.' Forthcoming in *The Future of Children* 15(1), Special Issue on School Readiness: Closing Racial and Ethnic Gaps.
- Burgess, Simon, Paul Gregg, Carol Propper, Elizabeth Washbrook, and the ALSPAC Study Team (2002). 'Maternity Rights and Mothers' Return to Work.' CMPO Working Paper No. 02/055, University of Bristol.
- Camp, Christine (2004). *Right to Request Flexible Working: Review of Impact in First Year of Legislation*. Report for the Department of Trade and Industry.

- Carneiro, Pedro and James J. Heckman (2003). 'Human Capital Policy.' In Benjamin W. Friedman (ed) *Inequality in America: What Role for Human Capital Policies?* Cambridge, MA: MIT Press.
- Chatterji, Pinka and Sara Markowitz (2004). *Does the Length of Maternity Leave Affect Maternal Health?* NBER Working Paper No. 10206. Cambridge, MA: National Bureau for Economic Research.
- Cohen, Bronwen, Peter Moss, Pat. Petrie, and Jennifer Wallace (2004). *A New Deal for Children? Re-Forming Education and Care in England, Scotland, and Sweden.* Bristol: The Policy Press.
- Currie, Janet (2001). 'Early Childhood Intervention Programs: What Do We Know?' *Journal of Economic Perspectives* 15: 213-238.
- Currie, Janet and V. Joseph Hotz (in press). 'Accidents Will Happen? Unintentional Childhood Injuries and the Effects of Child Care Regulations.' Forthcoming in *Journal of Health Economics*.
- Daycare Trust (2004). 'Childcare Costs Rise to Record Levels.' Available from www.daycaretrust.org.uk [accessed January 26, 2004].
- Department for Education and Skills (2004). *Five Year Strategy for Children and Learners.* London: HMSO.
- Desfarges, Charles with Alberto Abouchaar (2003). *The Impact of Parental Involvement, Parental Support, and Family Education on Pupil Achievements and Adjustment: A Literature Review.* Research Report No. 433. London: Department for Education and Skills.
- Donohoe, John and Peter Siegelman (1998). 'Allocating Resources among Prisons and Social Programs in the Battle against Crime.' *Journal of Legal Studies* 27(1): 1-43.
- Duncan, Greg and Katherine Magnuson (2003). 'Promoting the Healthy Development of Young Children.' in Isabel Sawhill (ed) *One Percent for the Kids: New Policies, Brighter Futures for America's Children.* Washington, DC: Brookings Institution Press.
- Esping-Anderson, Gosta (2004). 'Untying the Gordian Knot of Social Inheritance.' *Research in Social Stratification and Mobility* 21: 115-139.
- Evangeliou, Maria and Kathy Sylva (2003). *The Effects of the Peers Early Education Partnership (PEEP) on Children's Developmental Progress.* Brief No: RB489. London: Department for Education and Skills.
- Feinstein, Leon (2003). 'Inequality in the Early Cognitive Development of British Children in the 1970 Cohort.' *Economica* 70 (227): 73-98.
- Fitzgerald, Rory, Steven Finch, Margaret Blake, Jane Perry, and Alice Bell (2002). *5th Survey of Parents of Three and Four Year Old Children and*

- Their Use of Early Years Services (Summer 2000 to Spring 2001)*. Research Brief No. 351, prepared by the National Centre for Social Research for the Department for Education and Skills. Available at www.dfes.gov.uk/research/ [accessed March 10, 2004].
- Gomby, Deanne, P.L. Culross, and Richard Behrman (1999). 'Home Visiting: Recent Program Evaluations – Analysis and Recommendations.' *The Future of Children* 9: 4-26.
- Gordon, Rachel, Robert Kaestner, and Sanders Korenman (2004). *Effects of Maternal Employment on Child Injuries and Infectious Diseases*. Chicago, IL: University of Illinois at Chicago, Department of Economics.
- Gregg, Paul and Jane Waldfogel (in press). 'Introduction to Symposium on Parental Leave, Early Maternal Employment, and Child Outcomes.' Forthcoming in *The Economic Journal*.
- Gregg, Paul, Elizabeth Washbrook, Carol Propper, and Simon Burgess (in press). 'The Effects of a Mother's Return to Work Decision on Child Development in the UK.' Forthcoming in *The Economic Journal*.
- Harker, Lisa and Liz Kendall (2003). *An Equal Start: Improving Support During Pregnancy and the First 12 Months*. London: IPPR.
- Heckman, James J. and Lance Lochner (2000). 'Rethinking Education and Training Policy: Understanding the Sources of Skill Formation in a Modern Economy.' in Sheldon Danziger and Jane Waldfogel (eds) *Securing the Future: Investing in Children from Birth to College*. New York: Russell Sage Foundation Press.
- Heckman, James and Dimitriy Masterov (2004a). *Skill Policies for Scotland*. Available from <http://lily.src.uchicago.edu/~dvmaster/Scotland.html> [Accessed October 27, 2004].
- Heckman, James and Dimitriy Masterov (2004b). *The Productivity Argument for Investing in Young Children*. Working Paper 5, Invest in Kids Working Group, Committee for Economic Development. Available from <http://jenni.uchicago.edu/Invest/>. [Accessed October 27, 2004].
- Heckman, James and Amy Wax (2004). 'Home Alone.' *Wall Street Journal*, January 23, 2004, p. A14.
- Hudson, Maria, Stephen Lissenburgh, and Melahat Sahin-Dikmen (2004). *Maternity and Paternity Rights in Britain 2002: Survey of Parents*. A Report by the Policy Studies Institute for the Department for Work and Pensions and the Department of Trade and Industry. London: HMSO.
- Karoly, Lynn, Peter Greenwood, Susan Everingham, Jill Hoube, Rebecca Kilburn, Peter Rydell, Matthew Sanders, and James Chiesa (1998). *Investing in Our Children: What We Know and Don't Know about the*

- Costs and Benefits of Early Childhood Interventions*. Santa Monica: RAND.
- Love, John M., Ellen Eliason-Kisker, Christine M. Ross, P.Z. Schochet, Jeanne Brooks-Gunn, and D. Paulsell (2002). *Making a Difference in the Lives of Infants and Toddlers and Their Families: The Impacts of Early Head Start*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.
- Magnuson, Katherine (2004). 'Parenting Interventions: How to Spend the Marginal Dollar?' Presentation to IPPR / HM Treasury Conference on Life Chances and Social Mobility: Where Do We Spend the Marginal Pound?, March 30, 2004.
- Magnuson, Katherine, Meyers, Marcia, Ruhm, Christopher, and Waldfogel, Jane (2004). 'Inequality in Preschool Education and School Readiness.' *American Educational Research Journal* 41(1): 115-157.
- Magnuson, Katherine, Ruhm, Christopher, and Waldfogel, Jane (2004). *Does Prekindergarten Improve School Preparation and Performance?* Revised version of NBER Working Paper 10452, Cambridge, MA.
- Magnuson, Katherine and Jane Waldfogel (in press a). 'Early Childhood Care and Education, and Ethnic and Racial Gaps in Readiness at School Entry.' Forthcoming in *The Future of Children* 15(1), Special Issue on School Readiness: Closing Racial and Ethnic Gaps.
- Magnuson, Katherine and Jane Waldfogel (in press b). 'Pre-School Enrollment and Parents' Use of Physical Discipline.' Forthcoming in *Infant and Child Development*.
- Masse, Leonard N. and W. Steven Barnett (2004). *A Benefit Cost Analysis of the Abecedarian Early Childhood Intervention*. New Brunswick, NJ: National Institute for Early Education Research.
- Maternity Alliance (2004). *Happy Anniversary? The Right to Request Flexible Work One Year On*. London: Maternity Alliance.
- Meyers, Marcia, Dan Rosenbaum, Christopher Ruhm, and Jane Waldfogel (2004). 'Inequality in Early Childhood Care and Education: What Do We Know?' In Kathryn Neckerman (ed). *Social Inequality*. New York: Russell Sage Foundation Press.
- Morris, Pamela A., Aletha C. Huston, Greg J. Duncan, Danielle A. Crosby, and Johannes M. Bos (2001). *How Welfare and Work Policies Affect Children: A Synthesis of Research*. New York: Manpower Demonstration Research Corporation.
- Moss, Peter and F. Deven (eds) (1999). *Parental Leave: Progress or Pitfall?* Brussels: CBGS.

- National Evaluation of Sure Start (2004). *The Impact of Sure Start Local Programmes on Child Development and Family Functioning: A Report on Preliminary Findings*. Available from the Institute for the Study of Children, Families and Social Issues, Birkbeck College, University of London.
- Neuman, Susan and David Dickinson (eds) (2003). *Handbook of Early Literacy Research*. New York: Guilford.
- NICHD Early Child Care Research Network (2002). 'Child Care Structure > Process > Outcome: Direct and Indirect Effects of Child-Care Quality on Young Children's Development.' *Psychological Science* 13: 199-206.
- NICHD Early Child Care Research Network. (2003). 'Does Amount of Time Spent in Child Care Predict Socioemotional Adjustment during the Transition to Kindergarten?' *Child Development* 74(4): 976-1005.
- NICHD Early Child Care Research Network and Greg Duncan (2003). 'Modeling the Impacts of Child Care Quality on Children's Preschool Cognitive Development.' *Child Development* 74: 1454-1475.
- Phillips, Meredith, James Crouse, and John Ralph (1998). 'Does the Black-White Test Score Gap Widen after Children Enter School?' in Christopher Jencks and Meredith Phillips (eds). *The Black-White Test Score Gap*. Washington, DC: Brookings Institution Press.
- PricewaterhouseCoopers (2004). *Universal Early Education and Care in 2020: Costs, Benefits, and Funding Options*. A Report for Daycare Trust and the Social Market Foundation. Available from Daycare Trust, Pricewaterhouse-Coopers, and Social Market Foundation.
- Ramey, Craig T. and Sharon L. Ramey (2000). 'Early Childhood Experiences and Developmental Competence.' Pp. 122-152 in Sheldon Danziger and Jane Waldfogel (eds). *Securing the Future: Investing in Children from Birth to College*. New York: Russell Sage Foundation Press.
- Rothstein, Richard (2003). *Class and Schools: Using Social, Economic, and Educational Reform to Close the Black-White Achievement Gap*. Washington, DC: Economic Policy Institute.
- Rouse, Cecilia, Jeanne Brooks-Gunn, and Sara McLanahan (in press). 'Ethnic and Racial Gaps in School Readiness.' Forthcoming in *The Future of Children* 15(1), Special Issue on School Readiness: Closing Racial and Ethnic Gaps
- Ruhm, Christopher (2000). 'Parental Leave and Child Health'. *Journal of Health Economics* 19(6): 931-960.
- Ruhm, Christopher (2003). 'Maternal Employment and Adolescent Development.' Mimeo, University of North Carolina at Greensboro.

- Ruhm, Christopher (2004). 'Parental Employment and Child Cognitive Development.' *Journal of Human Resources* 39(1): 155-192.
- Sammons Sammons, Pam, Kathy Sylva, Edward Melhuish, Iram Siraj-Blatchford, Brenda Taggart, and Karen Elliot (2002). *Measuring the Impact of Pre-School on Children's Cognitive Progress over the Pre-School Period*. Technical Paper 8a, The Effective Provision of Pre-School Provision (EPPE) Project. London: Institute of Education, University of London.
- Sammons, Pam, Kathy Sylva, Edward Melhuish, Iram Siraj-Blatchford, Brenda Taggart, and Karen Elliot (2003). *Measuring the Impact of Pre-School on Children's Social/Behavioural Development over the Pre-School Period*. Technical Paper 8b, The Effective Provision of Pre-School Provision (EPPE) Project. London: Institute of Education, University of London.
- Shonkoff, Jack P. and Deborah A. Phillips (eds) (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC: National Academy Press.
- Smolensky, Eugene and Jennifer Gootman (eds) (2003). *Working Families and Growing Kids: Caring for Children and Adolescents*. Washington, DC: National Academy Press.
- Stewart, Kitty (in press). 'Towards an Equal Start? Addressing Childhood Poverty and Deprivation.' Forthcoming in John Hills and Kitty Stewart (eds). *A More Equal Society? New Labour, Poverty, Inequality, and Exclusion*. Bristol: Policy Press.
- Sweet, Monica A. and Mark I. Appelbaum (2004). 'Is Home Visiting an Effective Strategy? A Meta-Analytic Review of Home Visiting Programs for Families with Young Children.' *Child Development* 75(5): 1435-1456.
- Tanaka, Sakiko (in press). 'Parental Leave and Child Health Across OECD Countries.' Forthcoming in *The Economic Journal*.
- Vandell, Deborah L. and Wolfe, Barbara (2000). *Child Care Quality: Does It Matter and Does It Need to Be Improved?* Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services.
- Waldfogel, Jane (2001). 'What Other Nations Do: International Policies Toward Parental Leave and Child Care.' *The Future of Children*, 11(4): 99-111.
- Waldfogel, Jane (2002). 'Child Care, Women's Employment, and Child Outcomes.' *Journal of Population Economics* 15: 527-548.
- Waldfogel, Jane (in progress). *Getting it Right: Meeting the Needs of Children When Parents Work*. Manuscript in progress.

- Webster-Stratton, Carolyn (1998). 'Preventing Conduct Problems in Head Start Children: Strengthening Parenting Competences.' *Journal of Consulting and Clinical Psychology* 66: 715-730.
- Webster-Stratton, Carolyn, Jamilya Reid, and Mary Hammond (2001). 'Preventing Conduct Problems, Promoting Social Competence: A Parent and Child Training Partnership in Head Start.' *Journal of Child Clinical Psychology* 30: 283.
- Webster-Stratton, Carolyn and Ted Taylor (2001). 'Nipping Early Risk Factors in the Bud: Preventing Substance Abuse, Delinquency, and Violence in Adolescence through Interventions Targeted at Young Children (0-8 Years).' *Prevention Science* 2" 165-192.
- Whitehurst, Grover and C.J. Lonigan (1998). 'Child Development and Emergent Literacy.' *Child Development* 69: 848-872.
- Whitehurst, Grover, A.A. Zevenbergen, D.A. Crone, M.D. Schultz, O.N. Velting, and J.E. Fischel (1994). 'Outcomes of an Emergent Literacy Intervention in Head Start.' *Journal of Educational Psychology* 86: 542.
- Whitehurst, Grover, A.A. Zevenbergen, D.A. Crone, M.D. Schultz, O.N. Velting, and J.E. Fischel (1999). 'Outcomes of an Emergent Literacy Intervention from Head Start through Second Grade.' *Journal of Educational Psychology* 91: 261-272.
- Woodland, Stephen, Melissa Miller, and Sarah Tipping (2002). *Repeat Study of Parents' Demand for Childcare*. Research Brief No. 348, prepared by the National Centre for Social Research for the Department for Education and Skills. Available from www.dfes.gov.uk/research/ [accessed March 10, 2004].
- Work Foundation (2004). *Lowest Paid Losing Out in Right to Request Flexible Working*. April 5, 2004 Press Release, available from www.theworkfoundation.com [accessed April 16, 2004]