

## The effect of parents' employment on outcomes for children

Parents' employment patterns can have long-term consequences for their children's development. A study by John Ermisch and Marco Francesconi of the Institute for Social and Economic Research, University of Essex, measured the impact on young people of having spent less time with their parents when they were young because of work arrangements. Using unique features of the British Household Panel Study, the analysis compares differences in parents' employment patterns and outcomes between 516 pairs of siblings born in the 1970s.

**f** There was strong evidence of a trade-off for mothers who were employed full-time when their children were under five. Although full-time work increased family income, less time for mothers to interact with their families tended to reduce children's later educational attainments (the analysis controlled for family income).

**f** Longer periods of full-time employment by mothers when their children were aged one to five tended to:

- reduce the child's chances of obtaining A-level qualifications or their equivalent;
- increase the child's risk of unemployment and other economic inactivity in early adulthood;
- increase the child's risk of experiencing psychological distress as a young adult;
- reduce the chances of daughters giving birth before the age of 21.

**f** Part-time employment by mothers appeared to have few adverse effects on children as young adults. A longer period of part-time employment by mothers when their child was a pre-schooler reduced the child's educational attainments, but this effect was smaller than that of full-time employment at these ages.

**f** The effects of fathers' employment on the outcomes studied were generally less important than those of mothers' paid work. Longer periods of work by fathers when their children were pre-schoolers tended to:

- reduce the child's risk of unemployment and other economic inactivity in early adulthood;
- reduce the child's risk of experiencing psychological distress as a young adult;
- reduce the child's chances of obtaining A-level qualifications or their equivalent.

**f** Having lived in a lone-parent family during childhood was associated with lower educational achievements and also, if the lone parent family became a stepfamily, a higher risk of daughters giving birth before the age of 21.

## Background

Parents play an important role in shaping the adult lives of their children. They invest their time and money in activities that affect their offspring's well-being. In particular, fathers' and mothers' employment affects both the income coming into the family and the time devoted to children's development. This study aimed to measure the effects of parents having less time available for their children, because of paid employment, on their children's educational attainment, economic inactivity, mental health and early childbearing.

A major problem in trying to measure the 'effect' of parents' employment patterns on longer-term outcomes for their children is that parents choose their paid work patterns in conjunction with choices about the way they spend their time and money on children. These, in turn, affect the outcomes. This emphasises the need to take account of other factors that affect outcomes like children's educational achievements, such as their mother's own educational attainments. Yet, no matter how many parental variables are measured, they are still likely to omit some important aspects of family background that exert an influence. For this reason, estimates of the relationship between children's outcomes and parents' employment patterns that are based on comparisons of young adults from different families are unlikely to identify the 'effect' of parents' employment patterns. Yet this type of between family comparison has been the basis of all previous research on this topic.

However, if these unmeasured aspects of family background are the same for all children in a family, then it is possible to eliminate their influence in empirical analysis by relating differences in outcomes between brothers and sisters to differences between them in parents' employment patterns during childhood. This study was able to take this approach producing 'sibling comparison' estimates that are less likely to be contaminated by unmeasured factors within families. The estimated 'effects' of parents' paid work on children's outcomes in this analysis should mainly capture the impact on children's development of differences in the time that their parents had to spend with them. They may also capture to a much lesser extent any impact of short-term variations in family income through differences in parents' employment.

This *Findings* focuses on results from the analysis relating to the effects of parents' employment in their child's pre-school years for three reasons.

- When children are in school there is less conflict between parents' time in paid employment and time with their children. The children are not available at home for a large part of the day.
- Parents may have very limited knowledge of their children's cognitive and other abilities and problems before they enter school, making it less likely that their employment decisions are affected by these 'endowments'.
- The pre-school years are particularly important for a child's development.

## Educational attainment and mothers' employment

There is strong evidence of an adverse effect on the probability of achieving an A-level or equivalent qualification from mothers' employment in pre-school years. On the basis of the sibling comparisons, the effect ranged between a probability 6 percentage points lower of achieving at least one A-level from an additional year of part-time employment to a lower probability of 12 percentage points from an additional year of full-time employment. Further analysis indicates that while there is weak evidence of smaller employment effects among better-paid mothers, adverse effects of their full-time employment when the child was a pre-schooler remain. Estimates based on comparisons between families also showed lower educational attainments for children whose mothers worked longer periods in full-time jobs when they were pre-schoolers.

This suggests that longer periods of full-time employment by mothers when their children were pre-schoolers reduced children's educational attainments because of the reduction in the time available to spend with the child in these formative years. Longer periods of part-time employment by the mother when the child was aged under 6 also reduced the child's subsequent educational attainment, but this effect was much smaller.

## Other outcomes and mothers' employment

Young people classified as 'economically inactive' in this study were those not employed, not in full-time education, not looking after children, and not in government training schemes. Those experiencing psychological distress were identified on the basis of a 12-point measure using subjective indicators. The estimates suggested that an additional year of full-time employment by mothers when their children

were pre-schoolers increased the probability of economic inactivity as a young adult by 2 percentage points. It also increased the probability that the child suffers from psychological distress as a young adult by about 5 percentage points. However, an additional year of part-time employment reduced this probability by 2 percentage points.

Longer periods of full-time employment by mothers when their daughter was a pre-schooler appeared to exert a positive influence in reducing the likelihood that their daughters would give birth before their 21st birthday. An additional year of full-time employment during the child's pre-school years reduced the annual probability of a birth by over 2 percentage points – a large effect considering the average annual probability of giving birth below the age of 21 for the sample was only 3 per cent.

More surprisingly, an additional year of full-time employment by the mother when her daughter was in primary school (aged 6-10) was found to be associated with an annual probability of having a child before the age of 21 that was 3 percentage points higher. This contrasted with the impact of full-time employment during a daughter's adolescence, where it was seen to reduce the risk of early childbearing. The study's analysis does not clarify the mechanisms through which such an effect might work. The researchers would have expected that any impact of a potential lack of maternal control associated with mothers' full-time employment would mainly operate when the daughter was a teenager, ages at which the study found a favourable impact of full-time employment.

### Fathers' employment

The vast majority of the fathers in the sample were employed most of the time; on average, almost 15.5 years of employment over the first 16 years of life of their children. This small variation in father's employment across families and over time makes it more difficult to identify the impact of fathers' employment. However, there is evidence that longer periods of a father's employment while children were pre-schoolers reduced the probability that children would achieve A-level or higher qualifications although this effect is less important than mothers' full-time employment. Because the analysis controlled for family income, it is very likely that this effect reflected the impact of fathers who worked full-time having less time available for their children. On the favourable side, longer periods of employment by the father during his children's pre-school year reduced the chances that they would experience high

levels of psychological distress or economic inactivity as young adults.

### Other aspects of family background

Children of more highly educated parents tended to have higher educational attainments and a lower probability of being economically inactive as a young adult. There was also a strong, positive association between parents' occupational status and the probability that their children would gain A-level qualifications. Higher earnings capacity for either parent was generally associated with higher educational attainments for their child and a lower risk of giving birth before the age of 21 for their daughters.

Having lived in a lone-parent family during childhood was associated with lower educational achievement, and a higher risk of early childbearing for daughters if the single parent family became a stepfamily. Family size, with its impact on the way resources were shared between siblings, also appeared to exert some long-term influence. Having more brothers and sisters increased the chances of economic inactivity, and having more brothers increased the risk of early childbearing for women.

### Some policy implications

These findings strongly suggest that for mothers of pre-school children in the 1970s and 1980s taking up full-time employment, there was a trade-off in terms of their children's future educational attainments. On the one hand, there was less time available for them to interact with their children, which according to the study's estimates tended to reduce their educational attainments. But, on the other hand, a mother who returned to full-time employment early in her child's life may also have maintained and acquired skills that increased her family's income over the entire childhood of the child. This may have favourable effects on her child's educational attainments, although this study cannot measure them. If the positive impact of long-term increases in family income is enough to offset the adverse impacts of full-time employment when the child is a pre-schooler, then a policy of encouraging mothers back to full-time employment could still produce gains for children. It is, however, important that any such policy is able to produce these longer-term gains in family income.

The study also provides evidence in support of employment policies such as parental leave and longer maternity leave. Entitling parents to more time with young children can be justified as a

potential investment in the labour force of tomorrow. It also suggests the need to consider carefully the skills of childcare workers and their ability to contribute to the educational and development needs of pre-school children.

In addition, the analysis indicates that part-time employment by mothers has fewer negative effects on children as young adults. The one adverse possibility identified was that longer periods of part-time employment by mothers when their children were pre-schoolers tended to reduce educational attainments. But this effect was much smaller than that of mothers' full-time employment at these ages. Unless an early return to full-time employment can be shown to produce substantial longer-term gains in family income, it might be better for policy-makers to encourage part-time employment by one parent during a child's pre-school years. The large proportion of employed mothers of young children who are in part-time jobs is evidence that mothers themselves prefer this option.

### About the study

The analysis is based on a sample of 1,263 individuals from the British Household Panel Study (BHPS), who were born between 1970 and 1981 and who could be matched with their mothers in the BHPS. These data allow 516 sibling comparisons (381 in the analysis of educational attainments). Multiple annual observations during 1991-97 are available for most of these young adults and for the sibling comparisons.

### How to get further information

More information is available from the authors, John Ermisch (e-mail: ermij@essex.ac.uk) and Marco Francesconi (e-mail: mfranc@essex.ac.uk), Institute for Social and Economic Research, University of Essex, Colchester CO4 3SQ. Full information on the results for the effects of parents' employment and other variables on each of the child outcomes can be obtained at [www.iser.essex.ac.uk/jrf/ermij/annex](http://www.iser.essex.ac.uk/jrf/ermij/annex).

The full report, **The effect of parents' employment on children's lives** by John Ermisch and Marco Francesconi, is published for the Foundation by the Family Policy Studies Centre (ISBN 1 901455 60 2, price £10.95).