Combining Childrearing with Work: Do Maternal Employment Experiences Compromise Child Development

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## Long Abstract:

In this study we use comparative longitudinal panel study data from both Great Britain and the United States to address the important question of how maternal employment might impact the cognitive and behavioural development of children as they move through early and middle childhood and into early adolescence. Both Great Britain and the United States have witnessed a substantial increase in the labour force participation of mothers with young children in recent decades. The situation in the United Kingdom regarding the employment of new mothers differs somewhat from the experiences of American mothers, however. In the United Kingdom a growing proportion of mothers have been covered by maternity leave and pay. Although an increasing proportion of mothers return to the labour market during the first year of a child's life, this kind of coverage means that labour force re-entry is likely to be after 4-6 months of leave. In contrast, even after the introduction of more formalized family leave legislation in the United States, American mothers employed during the child's first year are likely to have started back to work within 1-2 months of giving birth. Additionally, although by international standards both countries have high rates of unwed teenage motherhood, the benefit regimes they encounter reinforce early labour market entry for single mothers in the United States, while in the United Kingdom the income support regime reflects the hitherto normative expectation that mothers should stay at home with their babies.

A question that then arises is whether or not employment and childrearing are incompatible. Has such a change in labour market experiences of new mothers negatively impacted children? Or might there instead be positive benefits for children that result from their mothers working? Despite media coverage that tends to stress possible negative consequences of maternal employment for young children's well-being, the evidence from both countries presents a more balanced picture. Results of some studies suggest a superficial association of positive child development outcomes with maternal employment, but these tend to disappear when allowance is made for spurious correlation with maternal education and ability. Other studies have found some adverse effects of maternal employment, especially when mothers are employed full time during the first year of a child's life. Most estimates are mixed and modest at best, however (see for example, Parcel and Menahan, 1994; Cooksey, Menaghan and Jekielek, 1997; Joshi and Verropoulou, 2000; Waldfogel et al, 2002; Brooks-Gunn et al., 2002; Ruhm, 2005; Belsky et al., 2007).

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Various questions remain to be answered. In a recent study by our team (Joshi, Cooksey, Verropoulou, Menaghan and Tzavidis, 2008) our focus was on whether or not maternal employment in the first few years of a child's life might be associated with measures of

their cognitive and behavioural development in later childhood and early adolescence. Our preliminary results lent only limited support to a negative effect of mother's employment per se during infancy and the pre-school years on later child well-being in either the United Kingdom or the United States.

In our current research we expand on this initial study in a number of ways. First we move beyond whether mothers are employed or not to include additional information concerning the types of jobs that they return to: are these jobs routinized or do they provide a degree of autonomy, for example, as prior research suggests that the nature of the job may impact parenting skills and behaviors more fully than employment per se. We will also incorporate an expanded set of predictor variables that we feel are important to include in our analyses and plan to explore various interactions between our maternal employment measures and additional maternal characteristics and behaviors. We additionally plan to more fully explore differences by gender as the results from our initial study suggested the possibility of gender effects among children.

Our data are taken from the second generation of two cohort studies: the British Birth Cohort Study of 1970 (BCS70) and the American 1979 National Longitudinal Study of Youth (NLSY79). The BCS70 provides data back to birth for the mothers we study, and to their early teen years for the NLSY79, supplying us with an array of controls for confounding variables (such as mother's education, ability, and family history) which likely affect whether or not she enters the labour market during the early years of her child(ren)'s life. Both data sources also include information on maternal, child and family characteristics which may mediate or compensate for maternal employment, such as indicators of family income, child care, family structure, number of siblings, maternal health and child health.

The BCS70 is a longitudinal study whose subjects are all persons living in Great Britain who were born between the 5<sup>th</sup> and 11<sup>th</sup> of April, 1970. The original sample therefore consisted of 17,198 babies. The data we use in our analyses are taken from wave 6 of the survey which was carried out over 2004-2005 when the respondents were ages 34-35. For a one in two sample of BCS70 cohort members, information was also gathered about all natural and adopted children currently living with them. A total of 2,846 parents participated in this Parent and Child Interview giving information on 5,207 children (Simmonds et al., 2007).

The NLSY79 is also a longitudinal study. Over 12,000 respondents were first interviewed in 1979 when they were ages 14-22. These American respondents are therefore a little older than their BCS70 counterparts who would have turned 9 years old in 1979. Our analyses are therefore confined to women who were under 18 in 1979. NLSY79 respondents have been re-interviewed annually through 1994 and biennially since. By 2006 more than 80 percent of those eligible for interview were still being followed. Beginning in 1986, in-depth information was collected on and from all children born to NLSY79 women including various age appropriate batteries of cognitive and developmental testing, and detailed questions concerning behavioural problems. This information can be matched to similar information gleaned from the children of the

BCS70. The children of the NLSY79 have also been followed biennially with exceedingly high retention rates and so we are able to use data on child outcomes from various survey points.

Both the BCS70 and the NLSY79 contain multiple outcomes per child (both cognitive and behavioural), several children per mother, and a hierarchical structure. We therefore use a multivariate multi-level modeling procedure (Goldstein, 1995), which enables one to take into account the correlations between the various outcome variables. This procedure therefore allows for a more exact estimate of the standard errors and hence may produce more accurate inferences. If the correlations between the error terms that are produced from such an analysis are significant, then one can conclude that the multivariate, multi-level model provides a better fit than if the various child cognitive and behavioral outcomes had been modeled in separate equations as we have done to date. If not, then we may instead choose to drop back to separate independent models for each outcome. However, another potential benefit to the multivariate multi-level modeling that we propose is that missing data on the various dependent variables do not have to be omitted as they would when separate multilevel models are run for each child outcome, and hence the effective sample size is increased.

We are currently in the midst of creating an expanded set of both maternal employment and maternal/family background variables. We will begin our analyses within the next few months and anticipate having a complete paper ready by early spring 2009.

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