

Older Babies – More Active Mothers?

How Maternal Labor Supply Changes as the Child Grows

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Female labor market activity is dependent on the presence and the age of a child, but how do the determinants change in magnitude and significance with the child's age? For example, do mothers always respond to higher wages? The change in maternal labor supply as the child grows is explicitly addressed on the basis of a tobit model for precise actual working hours. In order to do so, this study approves of the panel dimension of the GSOEP and uses the waves from 1991 to 2006.

Pooling over the age of the child as most studies do is incapable of detecting potential non-linearities in the determinants of maternal labor supply which are indicated by the literature. Simple inclusion of the age of the youngest child as one of the explanatory variables does not solve the problem of detecting variation in the impact of labor supply variables. Therefore the present study - after illustrating a theoretical model and detailed descriptive analyses - runs a tobit regression with interactions of all covariates with the separate ages of the child. To my knowledge, this is the first analysis that uses this technique to detect changes in maternal labor supply.

The results clearly confirm the non-linear development of the coefficients for labor supply in the first four years after birth. More specifically, the wage, which is imputed to account for the inherent non-observability for non-employed mothers, increases in importance as well as the partner's earnings. This important result implies that mothers grow increasingly responsive to economic incentives. Simultaneously, labor force participation before birth is strongly correlated with post-birth working hours. Moreover, higher educated mothers and those living in the East of Germany clearly display higher labor supply, whereas surprisingly no such interrelation is found for the availability of informal daycare.

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