

PARENTAL LEAVE

The Effects of Parental Employment and Parental Leave on Child Health and Development

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Topic

Parental leave

Introduction

The first years of life are recognized as a critical period for children.^{1,2} Since, increasingly, young children are raised in families where mothers work, parents may have less time and energy to invest in their offspring. Parental leave is therefore an important accommodation, designed to increase the ability of families to balance the needs of the workplace and home. Considerable research has recently examined the effects of maternal employment during these early years. (Paternal employment has seldom been studied.) Conversely, although the effects of family leave policies on labour market outcomes has received some attention, much less is known about the relationship between leave entitlements and child health.

Subject

Between 1980 and 1998, the labour force participation rate of mothers in the United States with children under the age of 6 grew from 47% to 65%.³ The increase was even larger for women with infants, rising from 38% to 59% during the same period.⁴ These changes, combined with the growth in single-parent households, suggest that parents have less time and energy to invest in their offspring. Since the dramatic rise in employment among mothers with very young children is unlikely to be reversed in the near future, there is considerable interest in the development of *family-friendly* labour market policies, such as parental leave. Over 100 countries, including virtually all industrialized nations, have adopted parental leave policies.⁵ Most insure women the right to at least two or three months of paid leave around the time of childbirth. By contrast, the US did not require companies to provide leave until 1993, when firms were mandated to offer 12 weeks of *unpaid* leave to persons with qualifying employment histories, following the birth of a child or for a variety of health problems. Proponents of these entitlements believe that they improve the health of children and the position of women in the workplace and need to be legislated because the market provides sub-optimal periods of leave. Opponents counter that mandated entitlements reduce economic

efficiency by restricting open-door discussions/exchanges between employers and employees, and may therefore have particularly adverse effects on women's labour market opportunities.

Problems

It is difficult to measure how maternal employment or the use of parental leave affects children. The biggest problem is that mothers who work or take leave when their children are young are likely to differ from those who do not. For example, Vandell & Ramanan⁶ show that such employment is more common for women with high levels of education and cognitive skills. Indeed, if working mothers are highly skilled both at home and in market activities, being employed is likely to be correlated with positive child outcomes, even though there is no causal effect per se. Conversely, a spurious negative correlation could arise when women returning to work soon after they give birth are more *career-oriented* and have less interest or ability in home production. Eliminating or substantially reducing the biases that result from inadequate controls for these sources of heterogeneity is a key challenge in this area of research.

Research Context

Recent research emphasizes the long-lasting effects of early environmental influences on brain development.⁷ Environmental factors are also likely to be significant in the formation of learning skills, self-esteem, and emotional security. For instance, Heckman⁸ stresses the importance of human capital investments in early childhood, focusing on the role of dynamic complementarities whereby early skill development fosters subsequent learning. Psychological and sociological literature emphasizes further, generally complementary, pathways through which parental investments may affect children. Belsky⁹ argues that a mother's absence during the first year of life could disrupt mother-child attachment and deprive the child of the stimulation that promotes cognitive development. Hoffman¹⁰ states that the stress of maternal employment may yield fewer and lower-quality interactions with children. Coleman¹¹ expresses concern that job-holding mothers are diminishing our *social capital*, which is founded on women's emotional investment in building relationships with their children, at home.

Key Research Questions

Important research questions in this area include the following:

- 1) Does parental employment during the first years of children's lives affect their cognitive, health or socio-emotional development during pre-school and early school years?
- 2) Does the availability and use of parental leave mitigate or reinforce its effects on each of these (aforementioned) outcomes?
- 3) Do the results of leave taking and parental employment vary according to factors such as race, education, or marital status?

Recent Research Results

There has been a wealth of research on the effect of maternal employment on child outcomes (particularly in the area of cognitive development). However, until recently, few studies have taken care to control for non-random selection in job-holding or work

hours. The best analyses conducted¹²⁻¹⁴ in the early part of the past decade suggested that early maternal employment (during a child's infancy) had modest negative effects but with offsetting benefits from working during the child's second and third years. Recent analyses using more extensive controls and sophisticated statistical methods of accounting for heterogeneity¹⁵⁻¹⁸ have suggested that early maternal employment may have more deleterious effects. Specifically, the negative effects of women working during a child's first year of life appeared to be more pronounced than previously thought and the benefits of working during the next two years were either non-existent or not as great as shown in previous studies. Although these results highlight the potential usefulness of policies such as parental leave, only two studies examined whether family leave was associated with improved child health. Both provided evidence of possible benefits. Winegarden and Bracy¹⁹ found that entitlement to paid leave is negatively correlated with infant mortality rates. However, the estimated effects were implausibly large and were sensitive to the treatment of wage replacement during time off work. A more in-depth study by Ruhm²⁰ confirmed that paid leave was associated with reductions of the death rates among infants and young children. Furthermore, Ruhm has estimated that paid leave is likely to have a much stronger negative effect on post-neonatal mortality and deaths between the first and fifth birthday than on perinatal or neonatal mortality. This pattern could be anticipated if parental leave was found to have a causal impact.

Conclusions

Parental presence during the early years constitutes a significant investment in child development. Recent research has begun to clarify the role that parents play with particular emphasis on the importance of their presence during infancy. For example, maternal employment during a child's first year appeared to negatively affect subsequent cognitive test scores and was associated with increases in behavioural problems. Results were more ambiguous for employment in the second and third years, although some deleterious consequences were observed in cases where mothers worked long hours at their jobs. These findings appeared to indicate that there were significant potential benefits to parental leave rights following childbirth. But only a few studies have been conducted on this subject. We also know relatively little about how the effects of maternal employment or parental leave differ depending on factors such as the sex of the child, household structure, parental education, and the availability of high-quality child care.

Implications

Considerable caution must be exercised in applying these kinds of research findings to the development of policies. Certainly, the importance of parental investments during the first year of life appears to justify the generous and lengthy paid leave policies available in many European countries. By contrast, leave entitlements in the United States are limited and unpaid. However, child development is just one (albeit, very important) concern and we are largely ignorant about the tradeoffs that the various policies may entail. For instance, rights to many months of maternity leave may negatively affect labour market opportunities for some women. We also need a better understanding of the mechanisms by which parental investments produce improved outcomes. Maternal

employment, for example, is associated with decreases in the frequency and duration of breast-feeding.²¹⁻²⁴ Since the consumption of human milk is linked to better health and possibly enhanced cognitive development, returning to work during the first year of a child's life may not be a desirable option for mothers. This said, it is important to determine if the benefits of parental leave entitlements could be also achieved more inexpensively in other ways, such as through policies that make it easier for employed women to nurse their infants.

REFERENCES

1. Carnegie Task Force on Meeting the Needs of Young Children. *Starting Points: Meeting the Needs of Our Youngest Children: the report of the Carnegie Task Force on Meeting the Needs of Young Children*. New York, NY: Carnegie Corporation of New York; 1994.
2. Council of Economic Advisers. *The First Three Years: Investments that Pay*. Washington, DC: Council of Economic Advisers, Executive Office of the President; April 17, 1997.
3. U.S. Census Bureau. *Statistical Abstract of the United States: 1999* (119th ed.) Washington, DC: US Government Printing Office; 1999.
4. Bachu A, O'Connell M. Current Population Report. *Fertility of American Women: June 1998*. Washington, DC: US Census Bureau; September 2000. P20-526.
5. Kamerman SB. Child Care Policies and Programs: An International Overview. *Journal of Social Issues* 1991;47(2):179-196.
6. Vandell DL, Ramanan J. Effects of Early and Recent Maternal Employment on Children from Low-Income Families. *Child Development* August 1992;63(4):938-949.
7. Shore R. *Rethinking the Brain: New Insights Into Early Development*. New York: Families and Work Institute; 1997.
8. Heckman JJ. Policies to Foster Human Capital. *Research In Economics* 2000;54(1):3-56.
9. Belsky J. The 'Effects' of Infant Day Care Reconsidered. *Early Childhood Research Quarterly* 1988;3(3):235-272.
10. Hoffman LW. The Effects of Maternal Employment on the Academic Attitudes and Performance of School-Aged Children. *School Psychology Review* 1980;9(4):319-335.
11. Coleman JS. Social Capital and the Creation of Human Capital. *American Journal of Sociology* 1988;94(suppl):s95-s120.
12. Desai S, Chase-Lansdale PL, Michael RT. Mother or Market? Effects of Maternal Employment on the Intellectual Ability of 4-Year Old Children. *Demography* 1989;26(4):545-561.
13. Blau FD, Grossberg AJ. Maternal Labor Supply and Children's Cognitive Development. *Review of Economics and Statistics* 1992;74(3):474-481.
14. Parcel TL, Menaghan EG. Early Parental Work, Family Social Capital, and Early Childhood Outcomes. *American Journal of Sociology* January 1994;99(4):972-1009.
15. James-Burdumy, S. *The Effect of Maternal Labor Force Participation on Child Educational Attainment*. [mimeo] Princeton, New Jersey: Mathematica Policy Research, Inc.; 1999.
16. Neidell, MJ. *Early Parental Time Investments in Children's Human Capital Development: Effects of Time in the First Year on Cognitive and Non-cognitive Outcomes*. [mimeo] Los Angeles, CA: University of California at Los Angeles; 2000.

17. Ruhm CJ. *Parental Employment and Child Cognitive Development*. National Bureau of Economic Research; 2000. Working Paper No. 7666.
18. Waldfogel J, Wenjui H, Brooks-Gunn J. The Effects of Early Maternal Employment on Child Cognitive Development. *Demography* 2002;39(2):369-392.
19. Winegarden CR, Bracy PM. Demographic Consequences of Maternal-Leave Programs in Industrialized Countries: Evidence from Fixed-Effect Models. *Southern Economic Journal* 1995;61(4):1020-1035.
20. Ruhm CJ. Parental Leave and Child Health. *Journal of Health Economics* 2000;19(6):931-960.
21. Ryan AS, Martinez GA. Breast-feeding and the Working Mother: A Profile. *Pediatrics* 1989;83(4):524-531.
22. Gielen AC, Fadden RR, O'Campo P, Brown CH, Paige DM. Maternal Employment During the Early Postpartum Period: Effects of Initiation and Continuation of Breast-feeding. *Pediatrics* 1991;87(3):298-305.
23. Lindberg LD. Women's Decisions About Breastfeeding and Maternal Employment. *Journal of Marriage and the Family* February 1996;58(1);239-251.

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