

Child Care Availability and Fertility

Numerous European and Asian countries have fertility levels that are well below the levels required for insuring population replacement, which has raised concern among policy makers and the public alike. Sub-replacement fertility rates lead to an aging population and a decline in population size. In 2006, Japan experienced a decline in population size, a prospect that will soon face several European countries. While those who are anxious about the environmental implications of population growth may welcome the prospect of declining population size, sustaining it below replacement fertility levels can confront countries with a number of problems, including labor force shortages as well as difficulties in affording the

pensions and health care of the elderly. In confronting the issue of low levels of fertility, policy makers have considered and tried a variety of options, including cash subsidies for raising children, tax benefits for parents, and bonuses for having a second or third child.

One policy possibility that has received considerable attention is making

high quality child care available and affordable. To understand why child care centers might be needed now when they were not needed in the past, it is important to understand the dramatic changes that have occurred in the social context in which men and women of childbearing age are living today compared with when fertility was high. To describe these changes, I paint with a fairly broad brush.

Rather than living in rural settings and having agricultural occupations, most people in today's low fertility countries live in urban areas and have manufacturing, service or information jobs. People work in employer-provided settings rather than in family enterprises. Such jobs and job settings are not conducive to simultaneously watching and caring for infants, toddlers or children. Jobs are more complex, requiring increased levels of education, and hence later entry into the work world and parenthood. More and more interesting job opportunities have become available for women, who, with their increased investment in education, wish to take advantage of these opportunities. The social environment is more mechanized, impersonal and complex, requiring greater supervision of children for longer periods of their childhood. The range of goods and services considered 'necessary' for comfortable, everyday living has increased faster than wages, leading to a preference for both partners in a marriage to prefer employment. Thus, today's potential mothers also want to work, yet the changes that have occurred in workplace and residential settings have made it difficult to do both simultaneously.

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Such changes have led sociologists and economists alike to the same child care and fertility hypothesis: as organized, center-based, child care becomes more available, affordable, and acceptable, the antinatalist effects of contemporary work opportunities, educational attainment and urbanization decrease. Sociologists and economists have come to this hypothesis based on different lines of reasoning. Sociologists consider the role conflict that has emerged between the mother role and the worker role, arguing that the availability of high-quality, affordable child care while the mother is working reduces this conflict and makes it more feasible to combine the two roles, including having children earlier and having more children. Economists are concerned with the opportunity costs incurred while the mother is out of the labor force. These costs include not only foregone wages while the mother is out of the labor force, but also the lost opportunities for gains in human capital that affect her future wages when she returns to the labor force. The availability of high-quality, affordable child care reduces parents' time out of the labor force and thus reduces the opportunity costs, again permitting earlier childbearing and having more children. The fact that both sociological and economic theories lead to the same hypothesis makes it more appealing than if it had arisen from just one discipline.

This is not a new hypothesis; it was found in the literature more than 65 years ago (Myrdal 1941). Yet to the surprise of economists and sociologists, it has received limited and mixed empirical support. The principal reason for the mixed results is that a careful examination of the hypothesis reveals steep data and statistical requirements. Researchers need data that follows women over their childbearing years. Since people can move to places with better day care availability, it is important to control for such movement during a woman's childbearing years. There are and always will be unmeasured variables, such as fecundity, that affect fertility. The statistical modelling strategy needs to account for such unmeasured heterogeneity. The availability of day care facilities varies and at least some of that variation is due to idiosyncratic, and hence non-measurable reasons. The statistical modelling strategy needs to allow for such unmeasured, macro-level variables.



Figure 1. Rural Thailand. Photo: Ron Rindfuss.



Figure 2. Day care centre, “Skillebekk barnehage”, Oslo, Norway. Photo: Maria Sætre/CAS

Norway provides an excellent setting for testing the child care availability hypothesis. Child care centers have become increasingly available over the past 30 years. Generous financial subsidies for day care centers are available from the central government, which also sets high standards for day care centers, including the training needed by day care providers. However, day care centers are opened and run at the local level, thus producing heterogeneity across municipalities. Even though the political motivation for public transfers to child care centers was to facilitate female employment, one would still expect the expansion of their availability to be pronatalist.

Norway also has appropriate data for testing the child care availability hypothesis. The various Norwegian registers combined with the personal identification number system allow the construction of a data set that follows women during their childbearing years, recording births and changes in residential location, along with information on their education and their parents' educational attainment. The Municipality Database operated by Norwegian Social Science Data Services has information on child care availability and other variables for each of Norway's 435 municipalities, with the time series on child care availability beginning in 1973.

Using a statistical modelling technique that takes into account the idiosyncratic reasons why some municipalities might be more effective in providing more day care center availability, the results show that women living in municipalities with greater availability of day care start having children at younger ages (Rindfuss *et al.* 2007), which is exactly what the child care availability hypothesis predicts. Ongoing work indicates that women living in municipalities with greater availability of day care also have more children, again, exactly as hypothesized.

To what extent might these Norwegian results extend to other countries? The answer depends on the extent to which day care centers are structured to accommodate the working lives of parents. Norwegian day care centers are open year round, except on weekends and national holidays. They are open sufficiently early in the morning and late in the afternoon to accommodate the work schedules of parents. Further, ardent

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attempts are made to enable siblings to attend the same day care center. To the extent that other countries adopt the same parent-friendly model, then increased availability of child care should lead earlier and greater levels of childbearing. If, on the other hand, the hours of operation are only for part of the day and no accommodations are made to allow siblings to be in the same child care center, as is the case in some countries, then a modest, at best, pronatalist effect is expected.

References

- Myrdal, A.: *Nation and Family*. Cambridge, MA: Harvard University Press, 1941.
- Rindfuss, R. R., D. Guilkey, S. P. Morgan, Ø. Kravdal and K. B. Guzzo: "Child Care Availability and First-Birth Timing in Norway." *Demography* 44(2): 345–372, 2007.