Title: Child Care Choices and Expenditures in Urban China: 1989-1997

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Extended Abstract:

Child care has become an important public policy issue in the U.S. and other advanced industrialized countries during recent decades. In China, the continuous economic and social welfare reforms since the late 1970s have brought dramatic changes in many aspects of people's lives, among which child care choice was a major one for urban families. Many employment-related welfare benefits such as work-unit child care centers—one of the major child care arrangements for employed urban citizens before the reforms—have been gradually eliminated. Correspondingly, with the development of market economy, some new child care arrangements such as private child care centers and paid babysitters have emerged. Further, implemented since the mid-1970s, the one-child policy in China has led to significant changes in family structure and child rearing values. The phenomenon that two generations (parents and grandparents) care for one child is not rare for many urban families. Also, it is not surprising that the quality of child development and education has received excessive attentions in the society. Considering these factors, it is important to examine the recent trends and determination dynamics of family demographics and government welfare programs on child care choices in urban China, to inform related policy and practice.

This study answers the following four research questions: 1) What types of child care arrangements had been adopted in urban China during 1989 to 1997? 2) How did the child care arrangements vary by mothers' education and families' income levels over time? 3) How did mothers' demographics and families' socio-economic characteristics as well as participation of welfare programs affect their child care arrangement choices? and 4) What percentage of total household income did families spend on child care and what were the variation across family types and determinants of child care expenditures over time?

Literature on child care in the U.S. shows that younger mothers are more likely to use center care than in-home care in comparison to older mothers (Veum and Gleason, 1991). Education level of the mother typically exerts a positive influence on the choice of organized group care for children (Camasso & Roche, 1991). Married women are more likely to rely on care by relatives (Leibowitz, Klerman, & Waite, 1992). Family income has been found negatively related to the choice of non-relative child care, and positively related to the choice of child-care centers usage (Veum & Gleason, 1991; Cheskis-Gold, 1988; Hunter, et al., 1998). Child care expenditure has been noted important for care choices and quality. For example, as Meyers et al. (2001) indicate, child-care expenses can push near-poor families back into destitution, and the high cost of child care may lead to the selection of poor quality care or the choice to forgo employment for some families. Our study situates child care choice patterns in China within the context from the U.S. literature.

We utilize data from the China Health and Nutrition Survey (CHNS) 1989, 1991, 1993, and 1997 waves. This study is a collaborate effort of an international team of researchers and can be obtained from the Carolina Population Center at the University of

North Carolina at Chapel Hill. It was designed to examine the effects of the health, nutrition, and family planning policies and programs implemented by national and local governments on health, nutrition, and behavioral outcomes of its population. A multistage, random cluster process was used to draw the sample in nine provinces that are diverse enough in socioeconomic factors (income, employment, education and modernization) and other related health, nutritional and demographic measures so that the sample can be representative of overall China.

We limit the sample to urban families with children six years or younger, because there are very little variation in child care arrangement among rural families—most rural families care for children in own household—and children seven years or older mostly enter primary schools. Even though data are longitudinal, we are not tracking families over time, but rather treat each wave as a cross-sectional snapshot at a certain year. This is due to two reasons: 1) children in each wave tend to age out the age limit and thus would not be eligible to study; and 2) families tend to stick to the chosen child care arrangement as long as it is practical, so there are minor changes for one family's child care choice over time. There are 2,046, 3,774, 3,266, and 2,288 eligible families in 1989, 1991, 1993, and 1997 waves, respectively.

We differentiate five types of primary child care arrangements among families according to real situations in China and data availability: 1) babysitting by household members, relatives, or others; 2) work-unit child care center; 3) public child care center; 4) nursery school or pre-school; and 5) private child care center. They are ranked according to increasing costliness as moving to next type. We treat center/school care as the primary arrangement when there are overlaps between center/school care and babysitting because we believe that babysitting is served as a supplementary arrangement in this case. Child care expenditure is measured by 1) real dollar values spent on child care; and 2) child care spending as a percentage of total household income. To test how much value families put on child care in a relative scale, we focus more on discussing the results of using the second measurement as dependent variable.

Descriptive statistics are used to present the changes of overall and by family type child care arrangements and expenditures. To examine the effects of mother and family characteristics as well as welfare participation on child care arrangement choices, multinomial models and generalized ordered logistic regression models are used. Multinomial models show families' tendencies to choose center or school care arrangement relative to babysitting, while generalized ordered logistic regression indicates the odds of choosing a more expensive child care arrangement relative to the next cheaper one. OLS regressions are used to explore the determinants of levels of expenditures on child care. There are two sets of independent variables: 1) mother demographics such as age, education, ethnicity, marital status, and employment status, and family socio-economic characteristics including income, number of children, and living arrangements; and 2) families' welfare program participation such as receipt of housing, health, food, and welfare assistance. These two sets of independent variables are controlled separately and simultaneously to test the robustness of magnitudes and significance of the determinants.

Preliminary results show the following patterns: 1) Babysitting maintained the primary child care used by urban families in China during 1989-1997, but kept declining over time; 2) There have been a sharp decline in use of work-unit child care centers and,

correspondingly, a significant increase in use of private centers as the economic reform in China proceeds; 3) Mothers who have higher education levels and who are employed and families with higher incomes are more likely to choose center or school care, particularly private center care, and tend to spend more on child care. Expended family living arrangement increases the possibility of choosing babysitting arrangement; and 4) Families receiving child care subsidies are more likely to use center or school care rather than babysitting. Further, families receiving better housing and health benefit packages tend to pay more in child care while those to some degree relying on government food and welfare assistance spend a significantly lower percentage of household income on child care.

This study has important policy and research implications. As China faces ongoing challenges in welfare reform, child care related policies need to be modified to better meet families' needs. Our results imply that such policies should be designed according to family income levels and participation in various social benefit programs. As one of the pioneering research tracking changes over time in this area, it provides particular value in improving knowledge and furthering explorations on child care issues in China.