Women's Post-marital Employment in China: Motherhood in an Era of Economic Reform

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## Introduction

Beginning in the 1960s, a rapid increase of labor force participation of married women and mothers of young children swept many regions of the worlds. Increases in women's educational attainment, increases in employment opportunities linked to the expansion of service sector, and the expansion of social policies to protect women's right in the workplace all contribute to the increasing female labor force participation. However, women—especially mothers—continue to face severe role conflict between work and family demands. Studies in the United States, Europe and East Asian societies (Bellavia and Frone 2005; Bianchi and Milkie 2010; Brinton 2001) have confirmed the negative effects of motherhood on women's labor force participation in different social settings, where women suffer from interrupted employment, wage penalty and less productivity upon child bearing. But this motherhood effect which lead to family to work conflict received relatively less attention elsewhere.

This paper examines the effect of family obligations—specifically the motherhood effect—to women's post-marital employment in China under market reform. I seek to explore how motherhood affect Chinese women's 1) labor force participation and 2) wage employment under market reform from 1991 to 2011. I ask, does motherhood create any impact on Chinese women's post-marital employment? What is the effect of market reform to this family to work relationship? Does market reform and decreased labor expectations led to more diverse life course strategies among Chinese women, or has the tyranny of the market actually lessened choices concerning labor force participation? I incorporate an age-period-cohort perspective into my study by looking at influences of market reform and social policy changes to women's post-marital employment as period effects. I introduce women's birth cohorts to study cohort effects to women's labor force participation with the expectation that women in earlier cohorts are less affected by family obligations because they rear children in a less competitive market environment with more support from the state and work units than women in later cohorts who rear children in a highly market-oriented economy.

Much of the current literature on gender and labor market outcomes in China in the reform era has focused on market transition, particularly issues such as rising returns to human capital and new discriminations against women in urban marketplaces while conflicts between family responsibility and work have received little attention, and a discussion on the policy impact to the relationship between family responsibilities and work during market reform is

largely missing. I seek to lessen this gap in current scholarship by putting family back into the discussion of gendered labor market under market reform. I use China as a special case to study the effect of marketization and the decline of state provided social supports to women's work life balance. By looking at how women as social actors negotiate work and family demands under rapid economic and social changes, along with how their strategies are constrained by their specific institutional belongings, my study would contribute to a better understanding of work and family relationship both in other developing countries and in other post-socialist states. It provides valuable information for the assessment of how rapid economic and social policy changes influence gender equality during market transition.

To answer my questions, I use a pooled sample from eight waves (i.e., waves 1991, 1993, 1997, 2000, 2004, 2006, 2009, 2001) of China Health and Nutrition Survey (CHNS), which is an ongoing longitudinal survey covering nine provinces of China with large economic and geographic variations and contains rich information on Chinese women's occupational and family behaviors. Because CHNS only provide women's working status information at the year of the interview, and the total number of women experienced childrearing and participated in more than three waves is very small, I use the CHNS data set as repeated cross-sectional rather than longitudinal. Only each respondent's information in the last wave they participated was selected into my sample to avoid redundant information from the same person due to multiple participations. Using eight waves of CHNS, I am able to compare women's participation in the labor market from the very early dates of market reform to twenty years later when the Chinese society changed dramatically under economic transition. All married women with children and aged between 18 and 52 when they were interviewed the last time were selected into my sample. As a result, I obtained 5,226 observations in total.

I have two dependent variables. Women are classified as *participated in the labor force* if they were working at the time of the interview. To further identify the complexity of labor market structure, I introduce a second measure focusing on women's wage employment. Women were *employed as wage labors* if they were working and received wage payment in their occupations. Working women without wage payments are classified as non-wage labors. This measure allows me to distinguish Chinese women's participation in the formal economy (which provides better income and social welfares, such as housing, health care, child care, etc.) from those who work in informal sectors. Looking at women's wage employment, I take into account the possibility that it might be more difficult for women to combine paid work with family and motherhood as wage labors rather than as non-wage labors. My explanatory variables include women's educational attainment, if they were currently in school, their region of living, age,

birth cohort, age groups of women's youngest children, if women were living with their parents or parents-in-law in the same household, if their parents or parents-in-law need to be taken care of in daily life, and the wave they participated the last time. Among the 5,226 women in my sample, 3,864 of them were working in the labor market. 2,120 of these 5,226 women were employed as wage labors. 1,631 of them had their youngest child aged 6 or younger at the time of the interview.

I use generalized version of Hierarchical-Age-Period-Cohort (HAPC) model proposed by Yang and Land (2013) to model my data but following a variation of such model in Liao and Ozcan's (2013) work by estimating period effects along with age and other individual level characteristics as fixed effects on the first level while cohort effects as random on the second level. Using this method, I avoid the identification problem because age, period and cohort are no longer linear and additive at the same level. I also capture the multilevel structure of the data where respondents are cross-classified in different social-temporal context defined by birth cohorts and time periods. I use multilevel binary logit model to analyze dichotomous dependent variables *participated in labor force* and *employed as wage labors*.

Table 1 shows results of my preliminary models. Model A is for dependent variable participated in labor force where women are coded as 1 if they are working and 0 if they are not. Model B is for dependent variable employed as wage labors where working women with wage payment are coded as 1, and those without wage payment as 0. Both models have shown consistent age effects where women are more likely to participated in the labor force and wage employment as age increases but more likely to change their occupational status during their mid-life (indicated by negative age-square). Later period of market reform, especially after wave 2000, had a persistent negative effect to women's labor market outcomes which may relate to increasingly more competitive market environment and decreasing social policy support of gender equality in the workplace. Living with parents or in-laws could provide potential childcare assistant from grandparents to young mothers when they face intense family to work conflict and thus help them to stay in the labor market. Women in urban areas were less likely to participate in labor market than women living in rural sites. But they were more likely to involve in wage employment. Having a pre-school age child is extremely difficult for women to balance their family and work. But such negative effects of motherhood disappear as children entering middle school ages. The negative motherhood effect influences women's wage employment in a longer time period of their life course than its negative effect on women's participation in the labor force in general. It seems that it is even more difficult for women to combine paid work with family and motherhood as wage labors.

Table 1. Estimates from Cross-Classified Mixed-Effects Logit Models, CHNS 1991-2011

| Fixed Effects | Model A Participated in labor force | | Model B Employed as wage labor | |
|---|---|---|---|---|
| | Coefficient | SE | Coefficient | SE |
| Age | 0.274*** | (0.058) | 0.235*** | (0.062) |
| Age^2 | -0.004*** | (0.001) | -0.004*** | (0.001) |
| Last Wave Participated (Ref: 1993) | | | | |
| Wave 1991 | 0.536 | (0.330) | 0.252 | (0.267) |
| Wave 1997 | -0.393 | (0.252) | 0.062 | (0.251) |
| Wave 2000 | -0.531*** | (0.223) | -0.587*** | (0.209) |
| Wave 2004 | -1.183*** | (0.233) | -1.578*** | (0.244) |
| Wave 2006 | -1.318*** | (0.219) | -1.165*** | (0.209) |
| Wave 2009 | -1.470** | (0.222) | -0.820*** | (0.212) |
| Wave 2011 | -1.044*** | (0.210) | -0.410*** | (0.170) |
| Educational Attainment (Ref: Primary school and under) | | | | |
| Junior High school | -0.266*** | (0.084) | 1.013*** | (0.099) |
| Senior High or Vocational | 0.055 | (0.098) | 2.482*** | (0.123) |
| College and above | 1.379*** | (0.172) | 4.168*** | (0.272) |
| Currently in school? | -0.113 | (0.258) | 0.202 | (0.326) |
| Region of Living (Ref: Rural) | -0.470*** | (0.072) | 1.215*** | (0.091) |
| Age of youngest child (Ref: age between 13 and 17) | | | | |
| Youngest child age under 6 | -0.439*** | (0.143) | -0.762*** | (0.167) |
| Youngest child age between 7 and 12 | -0.192 | (0.121) | -0.411*** | (0.136) |
| Youngest child age above 18 | -0.111 | (0.116) | 0.174 | (0.140) |
| Living with Parents or In-laws | 0.412*** | (0.083) | 0.306*** | (0.094) |
| Parents or In-laws need daily care | 0.016 | (0.094) | 0.160 | (0.115) |
| Constant | -2.571*** | (1.104) | -4.278*** | (1.202) |
| Random Effects | | | | |
| Cohort effects | 0.251 | (0.104) | 0.103 | (0.080) |
| Log-likelihood | -2753.1698 | | -1856.7025 | |
| Chi2 | 295.74*** | | 820.97*** | |
| N | 5098 | | 3471 | |

Source: Self Calculation using China Health and Nutrition Survey, 1991 to 2011.

Reference


Bellavia, Gina M.and Michael R. Frone. 2005. “Work-family conflict.” Pp. 113-48 in Handbook of Work Stress. Edited by J. Barling, E. K. Kelloway, and M. R. Frone. Thousand Oaks, CA: Sage.

Bianchi, S.M.and M.A. Milkie. 2010. "Work and Family Research in the First Decade of the 21st Century." *Journal of Marriage and Family* 72(3):705-725.

Brinton, Mary C. 2001. *Women’s working lives in East Asia*. Stanford, CA: Stanford University Press.

Liao, Tim and Berkay Ozcan. 2013. “Family Forms among First- and Second-Generation Immigrants in Metropolitan America, 1960-2009.” Pp. 223-54 in *Immigrant Adaptation in Multi-Ethnic Societies: Canada, Taiwan and the United States*. Edited by Eric Fong, Lan-Hung Nora Chiang and Nancy Denton. New York, NY: Routledge.

Yang, Yang and Kenneth C. Land. 2013. *Age-Period-Cohort Analysis: New Models, Methods, and Empirical Applications*. Boca Raton, FL: CRC Press.