## Patterns and Determinants of Implementation of Family Planning Policy in China: An Empirical Study from Micro-Perspective

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## Introduction

Family planning policy has played a significant role in China's fertility transition and tremendously transformed fertility patterns of Chinese women. However, the policy has generated different degree of influence on different subgroups of the population in the context of diverging socioeconomic development. According to the 2005 National 1% Population Survey, the national rate of unauthorized births averaged at 18.6% over the last 20 years. The rates of unauthorized births for different policy areas are also very different. How well has China's family planning policy worked? How does the rate differ in different policy areas? What're the causes for people's noncompliant fertility behaviors?

This paper studies the patterns and determinants of unauthorized fertility behaviors in China, which has important implications for fertility theories, and which could also lay theoretical and data foundation for the adjustment of the family planning policy in China. Studies of this kind are rare. In fact, there are no systematic empirical evidence or studies in China to reflect and investigate the performance of China's family planning policy.

### **Theoretical Approach**

Based on the literature and theories of fertility behaviors (demographic transition theory, economic theories of fertility and low fertility models), the authors constructs the theoretical framework (Figure 1) in which the determinants of unauthorized fertility behaviors are discussed at three levels from macro, meso to micro perspective. Those factors together result in different values and costs of children for different families, causing people to form different ideas about a child's function. As a result, people will have special sex preference and intended number of children as well as other specific fertility behaviors.

## Data and methods

## Data

This research is based on China's 2005 National 1% Population Survey (also known as mini-census) which was conducted by the National Bureau of Statistics of China in 2005, being well representative of the whole population of China. Since the purpose of this paper is to investigate unauthorized fertility behavior in the context of China's family planning policy which differs across China, we select the following sample of women for this study: women who give their first birth after 1990, aged 35 and over, who and whose husbands being in first marriage and both being Han nationality.



#### **Figure 1 Theoretical framework**

We do so because: (1) China's fertility policy became relatively stable after 1990, in which every province enacted its specific policy and has kept almost unchanged under the national general guidelines, (2) Chinese woman largely stops reproduction after 35 years old so that the number of children after that represents their lifetime fertility, and (3) China has different fertility policy for re-marriage couples and ethnic minority couples, the proportion of which is very small and, for simplicity, is excluded in this study. The number of women included in the final sample is 42649.

The dependent variable is "whether does the woman have unauthorized births or not", identified by different policy areas in which women lived and the number and sex composition of their children. And for different policy areas, the dependent variable is the risk of a woman giving her second and third birth according to her specific conditions.

#### Methods

This study employs descriptive statistics and binary logistic regression to examine the patterns and determinants of the unauthorized fertility behavior. By using contingency table, the basic relationships between the unauthorized births and independent variables are established, which are further tested using binary logistic regressions to explore the important and significant variables after controlling for other factors.

Simultaneously, note that China's family planning policy is a combination of one-child policy in almost all urban areas, one-and-a-half-child policy in most rural areas, and two or more child policy in some rural or ethnic minority areas. So we construct regression models for the three types of the family planning policy separately in order to explore the complicated mechanisms. Standardized regression coefficients are also used in order to compare the relative importance of the variables.

### **Results**

The major findings are summarized as following:

(1) Strong sex preference is the primary as well as the direct factor to bring about the resistance to birth control of the government. Both the descriptive and regression results show that women who want a son have a higher probability to give more births. For example, in all the three types of policy areas, the sex composition for the first or the first two children has a greater influence on the probability of having another child; specifically, those whose first child is a son or at least one of the first two children is a son have a lower probability to have another child compared to those who have daughters only (Tables 1 and 2).

(2) Apart from son preference, women also tend to attain the balanced-sex ("er nv shuang quan") structure of their children. Some women have particular intended number of children which also causes unauthorized births. This is true especially in those one-and-a-half-child and two-child policy areas.

Table 1 Estimated effects of sex preference on fertility behaviors												
(Dependent Variable: Did the woman have the second birth? (1 Yes, 0 No))												
Explanatory variables	One-child policy		One-and-a-half-		Iwo-child policy							
			child policy									
Sex of the first child	OD	<b>CE</b>	OD	<b>C</b> E	OD	<b>C</b> E						
(Girl as the reference)	UK	2E	UK	SE	UK	SE						
D	0.07***	0.02	0.10	0.01	0.05****	0.01						
воу	0.3/***	0.02	0.12***	0.01	0.25***	0.01						

Note: OR stands for odds ratio, SE stands for standard error; \*\*\*p<0.01. This is only a part of the original model which includes some other control variables.

(Dependent Variable: Did the woman have the third birth? (1 Yes, 0 No))										
	One-child policy		One-and-a-half- child policy		Two-child policy					
Sex composition of the first two children (Two girls as the reference)	OR	SE	OR	SE	OR	SE				
Two boys	0.16***	0.03	0.26***	0.04	0.14***	0.01				
One boy and one girl	0.17***	0.02	0.21***	0.02	0.15***	0.01				

Table 2 Estimated effects of sex preference on fertility behaviors

Note: OR stands for odds ratio, SE stands for standard error; \*\*\*p<0.01. This is only a

part of the original model which includes some other control variables.

(3) Socioeconomic development can contribute to appeasing the resistance to the family planning program, but the relationship is not simply linear, which means it is not necessarily true for the case that women in more developed areas always have lower propensity of having unauthorized births. This is discussed in the paper taking Guangdong Province, one of the most developed areas in China as an example, in addition to building a regression model to examine the impact of the economic factor.

(4)From the "one-child policy" to "two-children policy" area, the possibility of unauthorized fertility behaviors has decreased gradually.

(5) Family income has a U-shape effect on the probability of unauthorized fertility behaviors, which can be explained by the notion of different values and costs of children for different family situations.

(6) Fertility behaviors are also influenced by individual characteristics: increase of the age at first birth will have a negative effect on the resistant fertility behaviors; higher education contributes to declining chance of unauthorized births; while absence of social security will cause a higher probability of unauthorized behaviors.