

# **Family Economic Status and Unauthorized Fertility Behaviors: The Moderating Role of Contextual Factors**

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## **Introduction**

China has implemented a well-known family planning policy since the 1970s, markedly contributing to China's fertility transition. Despite the stringent birth control policy, there are still a proportion of women who disobey the policy, which means they have more births than allowed by policy (Short & Zhai 1998). The national rate of unauthorized births averaged at 18.6% over the last 20 years (Jin & Chen 2014). Then two questions remain to be answered, that is, what are the economic characteristics of the group? And why do they want more children?

As with the economic characteristic, some anecdotes about unauthorized births among famous people with more wealth and higher social status can always be popular for a long time in China. But meanwhile, we are deeply impressed by an opposite fact that people in undeveloped rural areas also tend to disobey the rules and have more children. Confused by such a seemingly complicated relationship between economic status and birth outcome, we are motivated to investigate the mechanisms linking economic status and fertility behaviors empirically.

Previous findings show that macro social contexts and micro individual characteristics can generate interactive rather than additive effects on the fertility behaviors. This happens because individuals living in the same surroundings may be affected by certain same factors and the influence of some determinants including the affecting magnitude and direction may vary by social contexts. The interaction between social contexts and individual features motivates us to take provincial variation into account by emphasizing the importance of the environment where one lives in. And also, a large body of research shows that occurrence of unauthorized births vary across provinces, for example, in rural Zhejiang, on the eastern seaboard, 15 percent of births in 1989 were unauthorized, as opposed to 60 percent in the provinces bordering on Fujian and Jiangxi (Attane 2002), indicating the huge differentials concerning economy, culture and policy across provinces.

In light of the complexity of determinants of fertility behaviors and the environment across provinces, this study takes a multilevel approach to examine the relationship between family economic status and the likelihood of unauthorized births as well as explore how the relationship varies by provinces.

## Hypotheses

In the 1970s, initiated by Freedman(1974), the World Fertility Survey started to pay attention to the important role of community environment in women's fertility behaviors by collecting data of community environment to explore its influence on couple's fertility (Song 1993). Past studies show that macro-factors such as family planning programs may have influences on the relationship of individual's characteristics and fertility behaviors (Entwisle & MasonSource 1985). Regional variation should be given much attention to when analyzing causal effects. As with China, it is a huge country with great provincial differentials, including different levels of economy development and different space of population transition across provinces. Given the importance of macro-environment and China's significant regional variation, we hypothesize that, **(1)Local social environment, which is provincial environment in this study, plays a vitally important role in unauthorized birth behaviors.**

Attane (2002) has found that resistance to the family planning policy is stronger in regions with a large female agricultural labor force. The proportions of women in the agricultural workforce imply women's status, because unskilled work, such as agriculture, reflects women's low occupational status. Also, the proportion of women in the agricultural workforce also indicates the socioeconomic development level of a province. In summary, provinces with high percentages of women agricultural labor force are less developed, so low-income families tend to have more children for old-age support purpose or for son preference. Thus, we hypothesize that,

**(2)In provinces with high percentages of women in the agricultural workforce, family economic status, family income as a proxy here, is negatively associated with the likelihood of having unauthorized births.**

On the contrary, the areas with low rates of women in the agricultural force suggest a modern and urbanized environment with high level of economy development. Women in such regions are often confronted with pressure both from work and childbearing. Moreover, the costs of disobeying the policy are far higher than an ordinary family can afford. Therefore, families with low income tend to have one child to avoid high time and financial costs. However, families with high income have more economic sources and tend to have more children to fulfill their fertility intensions (Dribe & Scalone 2014; Ekert-Jaffé et al. 2002). So our third hypothesis is

**(3)In provinces with low percentages of women in the agricultural workforce, family economic status is positively associated with the likelihood of having unauthorized births.**

Besides, we include children sex ratio of provincial level to indicate son preference culture. Chinese family systems and values have long been influenced by the Confucian culture.

Traditional Chinese Confucian culture puts more emphasis on having sons than daughters, while fertility constraints amplify the expression of a preference for sons (Gu & Roy 1995). The rising sex ratios since the 1980s and excess female child mortality, especially serious in rural areas, are powerful manifestations of the persistence of gender discrimination in contemporary China (Li et al. 2007). Imbalanced China sex ratio can be viewed as a proxy for a strong son preference culture within the province.

In addition, individuals' fertility decisions are closely associated with their sociodemographic characteristics. First, women's basic sociodemographic characteristics, such as age, age at first birth, educational attainment, and rural/urban residence, are found to be highly correlated with the number of children they have ever had (Boca 2002; Hank 2002; Hank & Kreyenfeld 2003; Hirschman & Guest 1990). Second, socio-economic resources that a woman or a family has, such as entitlements to formal social security protection, also influence the fertility decisions and behavior (Boca 2002). Finally, in the Chinese context, individuals' fertility behavior is influenced by fertility policies, sex composition of previous children, and family structure (Yang & Short 2007). So we control for these variables in our models.

## **Data and Methods**

### **Data**

We use three data sources to examine the individual- and province-level factors that contribute to unauthorized birth in China—the 1990 Decennial Census (Population Census Office of the State Council 1993), the 2000 Decennial Census (National Bureau of Statistics 2008), and the 2005 China 1% Population Sample Survey (also known as the 2005 mini-census). We draw on the 20% random data from the 2005 mini-census<sup>①</sup> to obtain data pertaining to the individual level response (i.e., whether a woman has at least one unauthorized birth or not) and predictor variables. The 2005 mini-census, conducted by the National Bureau of Statistics (NBS), surveyed 5.43 million households in 77,000 residential blocks of 61,000 rural villages and urban neighborhoods from 21,000 townships (xiangzhen) or streets (jiedao) throughout China (Feng 2006). The 2005 mini-census collected household information as well as sociodemographic information on each household member. There are 2,585,481 respondents in the 20% sample of the 2005 mini-census. The 2005 mini-census is ideal for this study because of its large sample size and national coverage.

Essentially, the dependent variable—occurrence of unauthorized births—is inferred from the reproductive history of the woman. Because the fertility behavior preceded the time of the 2005 mini-census, it is inappropriate to use characteristics of provinces in 2005 as the province-level

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<sup>①</sup>The complete dataset of the 2005 mini-census is not available in China. The National Bureau of Statistics of China only provides 20% random samples of the complete data to academic institutions.

predictor variables. Alternatively, we construct measures of provincial characteristics—child sex ratios and percentages of employed women in agricultural workforce—from the 1990 Decennial Census and the 2000 Decennial Census, so as to best capture the characteristics of provinces women were exposed to when they gave birth.

## **Sample**

Following previous research on fertility (e.g., Entwisle & Mason 1985; Hirschman & Guest 1990), we limit the sample of this study to women only. Additionally, occurrence of unauthorized births was not directly surveyed in the 2005 mini-census. Thus, the dependent variable, whether a woman had at least one unauthorized birth or not, has to be inferred from the existing questions. In order to generate the dependent variable as precisely as possible, we limit the analytic sample to Han women aged 35 and above in 2005 who gave their first birth in 1990 and beyond and were not a migrant.

There are several reasons for the sample restriction practice:

(1) Ethnic minority groups in China make up only 8.5% of the national population (Attane 2007) and usually are not subjected to birth control policies (Gu et al. 2007);

(2) Women who are under the age of 35 are excluded from this study. The vast majority of women aged 35 and above has completed childbearing (Wang 2008). Therefore, fertility for women over 35 in China approaches their lifetime fertility, that is, the number of children ever born alive during the entire reproductive period of woman. Including women under the age of 35 tends to underestimate the occurrence of unauthorized births because it is very likely that those young women have not completed their childbearing yet;

(3) China's fertility policy was constantly modified since its implementation, but has remained relatively stable since 1990. Thus, we focus on Chinese women who gave their first birth after 1990, so as to identify as precisely as possible whether they have unauthorized births or not. Also, questions on relationship with household head, age, and gender of each household member allow us to know the number and gender composition of children a woman has ever had;

(4) Children born in 1990 or later were, at most, 15 years old in 2005 and had not yet left parental home for employment or college education. Thus, all the children a woman had were very likely to be living in the same household with her;

(5) We only include non-migrants because we can't get the fertility policy information of migrants.

In sum, we restrict the analytic sample to Han women aged 35 and above in 2005 who gave their first birth in 1990 and beyond, and after matching with province-level data, we obtain 36976 women in 30 provinces<sup>②</sup>. The within-province sample sizes range from 108 women in

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<sup>②</sup> There are 31 provincial-level administrative regions in mainland China. Tibet is omitted from the analysis of this study.

Hainan to 6474 women in Guangdong.

## **Measures**

### **Dependent variable**

The outcome for the analysis is the log-odds of having at least one unauthorized birth. China's fertility policies place restrictions on not only the total number of children a couple can have, but also the timing of additional births—a specified birth interval the second birth must follow (Gu et al. 2007). Due to data limitation, we only study unauthorized births in a quantitative sense, that is, women have more children than allowed by policy.

Although China's fertility policy is known as one-child policy, the policy's complexity has come to resemble that of the U.S. tax code (Wang 2005). Generally, there are three categories of fertility policies in China. The first category is the one-child policy which allows only one child per couple. The second category is the "1.5 children" policy which stipulates that couples whose first child is a daughter are allowed a second birth. The third category is the 2 children policy which allows a second child.

According to questions on relationship with household head, age, and gender of each household member, we match children living in the household with their mother. Furthermore, based on the number and gender composition of children a woman has ever had, province of current residence of the woman, and the hukou status of the couple, we create a dichotomous outcome of unauthorized birth: 0 for having authorized birth only; 1 for having at least one unauthorized birth. Approximately 19% of the sample had unauthorized births (see Table 1).

### **Predictor variables**

There are two sets of explanatory variables. The first include the sociodemographic characteristics of individuals. Logged household income is measured as a continuous covariate centered at its group mean. Coresidence with parents or parents-in-law is a dichotomous variable reflecting whether women coreside with their parents or in-laws at the time of the 2005 mini-census. Age at first birth is measured as a continuous covariate centered at its grand mean. Household registration status of a woman is measured by a dichotomous variable—rural hukou status. Two dummy variables—having old age insurance and having medical insurance are also included—to measure whether a woman has access to formal social security protection. Age at the time of the survey is measured as a continuous covariate centered at its grand mean. The sex preference of authorized children is measured by two dummy variables: having son(s), have no son(s) within the authorized children. We also include mutually exclusive dummy variables to measure the specific fertility policy a woman is under the jurisdiction of: one-child policy in rural areas, one-child policy in urban areas, 1.5-children policy and 2-child policy. Women's educational attainment is measured by five dummy variables: illiterate, primary school, junior

high school, senior high school, and college and above.

The second type of variables represent the demographic, socioeconomic, and policy characteristics of provinces where respondents resided at the time of the 2005 mini-census. Following Cai and Lavelly (2007), child sex ratio refers to the ratio of the number of boys aged 0-4 to 100 girls of the same ages. We compute the percentage of women in the agricultural workforce by dividing the number of women in agriculture by the number of total employed women within each province. For each province, we calculate these two indicators in 1990 and in 2000, respectively, and then take averages of the values for the two years.

The descriptive statistics for variables used in the analysis are presented in Table 1.

### Analytic Strategy

We apply multilevel statistical procedures to investigate how the effect of family economic status on unauthorized fertility behaviors varies across provinces, controlling for other individual factors. Considering that the dependent variable is a dichotomous variable, a hierarchical generalized linear model (HGLM) with a log link function is employed to model the log-odds of having unauthorized births. The data are multilevel in structure: individuals are nested within provinces. Our analysis is conducted in progressive stages across 5 models.

#### Model 1

Model 1 is the unconditional model, a model within no predictors at either level. The unconditional model is used to estimate the magnitude of variation between provinces in occurrence of unauthorized births (Raudenbush & Bryk 2002: 297). The level-1 model is simply

$$\eta_{ij} = \ln\left(\frac{\varphi_{ij}}{1-\varphi_{ij}}\right) = \beta_{0j}, \quad (1)$$

where the level-2 is

$$\beta_{0j} = \gamma_{00} + u_{0j}, \quad u_{0j} \sim N(0, \tau_{00}) \quad (2)$$

At level 1,  $\varphi_{ij}$  is the predicted probability of having unauthorized births for person  $i$  in province  $j$ , and hence  $\eta_{ij}$  represents the log-odds of having unauthorized births.  $\beta_{0j}$  is the intercept.

#### Model 2

We hypothesize a contextual effect at level 2. Thus, in Model 2, I model  $\beta_{0j}$  as a function of the province-level predictors, while the level-1 model remains the same as in Equation (1). The level-2 model of Model 2 takes the form:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} * W_{1j} + \gamma_{02} * W_{2j} ++ u_{0j} \quad (3)$$

$W_1$ ,  $W_2$ , and  $W_3$  are the province-level predictors.  $W_1$  is percentage of women in agriculture,  $W_2$  is child sex ratio.

#### Model 3

Occurrence of unauthorized birth is also associated with individual level characteristics. Thus, in Model 3, we add individual-level predictor at level 1. Specifically, the level-1 model is

$$\eta_{ij} = \ln\left(\frac{\varphi_{ij}}{1-\varphi_{ij}}\right) = \beta_{0j} + \beta_{1j}(LNHHINC_{ij}) + \sum_{q=2}^Q \beta_{qj}X_{qij} + e_{ij} \quad (4)$$

where logged household income ( $LNHHINC$ ) is group-mean centered, age at first birth and current age are grand-mean centered, and all other level-1 predictors remain in their dummy variable metric. In Model 3, at level 2,  $\beta_{0j}$  remains the same as in Equation (3), while the other level-1 coefficients,  $\beta_{qj}$ ,  $q \geq 1$ , are fixed:

$$\beta_{qj} = \gamma_{q1} \quad \text{for } q \geq 1 \quad (5)$$

#### Model 4

In Model 4, we allow the slope of logged household income ( $\beta_{1j}$ ) to vary randomly across provinces. The level-1 model remains the same as in Equation (4). At level 2,  $\beta_{0j}$  remains the same as in Equation (3), and the other level-1 coefficients,  $\beta_{qj}$ ,  $q \geq 2$ , remain fixed. The random-slope part of Model 4 takes the form:

$$\beta_{1j} = \gamma_{10} + u_{1j}, \quad u_{0j} \sim N(0, \tau_{11}) \quad (6)$$

#### Model 5

In Model 5, we investigate how the effect of logged household income varies across provinces with different percentages of women in agricultural workforce. Thus, we model  $\beta_{1j}$  as a function of the percentage of women in agriculture at the province-level. The level-1 model remains the same as in Equation (4). At level 2,  $\beta_{0j}$  remains the same as in Equation (3), and the other level-1 coefficients,  $\beta_{qj}$ ,  $q \geq 2$ , remain fixed. The slope of logged household income ( $\beta_{1j}$ ) takes the form:

$$\beta_{1j} = \gamma_{10} + \gamma_{11} * W_{1j} + u_{1j} \quad (7)$$

## Results

In model 1, the variance across provinces is 0.929 with significant  $\chi^2$  test statistic, suggesting that the odds of having unauthorized births vary significantly by provinces and the strategy of hierarchical model should be used. The first hypothesis—localized social contexts can generate influence on individual fertility behaviors is preliminarily verified.

In Model 2, we model  $\beta_{0j}$  as a function of the province-level predictors. After adding the two province predictors, the residual variance between provinces is 0.366, substantially smaller than the original value 0.929, estimated in the unconditional model (see Model 1 and Model 2 in Table 2), meaning that 60.6% of the between-province variance in log-odds of having unauthorized births is accounted for by percentage of women in agriculture and child sex ratio. However, even after controlling for the two province-level factors, the variance component in Model 2, still has a highly significant  $\chi^2$  test statistic, indicating that significant variation among province mean log-odds of having unauthorized births remains to be explained.

Besides, we find that the log-odds of having unauthorized births are positively related to percentage of women in agriculture and child sex ratio. The hypothesis 1 is further verified in model 2.

In Model 3, we add individual-level covariates at the level-1 model. Logged household

income is not significant. Coresidence with parents/in-laws, age at first birth, having old age insurance, having medical insurance, facing less restrictive fertility policy (i.e., 1.5-child policy or 2-child policy, as opposed to one-child policy), and education are all associated with lower log-odds of having unauthorized births, while older age (or older birth cohort) are associated with increased log-odds of having unauthorized births. Additionally, controlling for other variables, compared with women who don't have son(s) within authorized children, women who have son(s) are less likely to have unauthorized births.

In Model 4, we allow the slope of logged household income to randomly vary across provinces. Compared with the results from Model 3, the other individual-level predictors in Model 4 remain the same. The average logged household income-log-odds of having unauthorized births slope are not significant. Thus, on average, logged household income is not significantly related to log-odds of having unauthorized births within provinces.

The estimated variance of the slope is **0.015** ( $p < 0.001$ ), indicating that the relationship between logged household income and log-odds of having unauthorized births within provinces does indeed vary significantly across provinces. The 95% plausible value range for the province-specific logged household income-log-odds of unauthorized births slope is

$$0.03 \pm 1.96 * \sqrt{0.015} = (-0.21, 0.27)$$

Therefore, in terms of the province-specific logged household income-log-odds of having unauthorized births slope, there is considerable variability among provinces. In some provinces, there is a positive relationship between logged household income and log-odds of having unauthorized births, while in the other provinces, there is a negative relationship between these two variables. The province differentials in direction of the relationship might account for the insignificant average logged household income-log-odds of having unauthorized births slope.

A cross-level interaction between percentage of women in agriculture and logged household income is added in Model 5 to explore how the effect of household income on fertility behaviors varies by provincial environment. The results show that the cross-level interaction term is significant ( $\gamma_{11} = -0.0043$ ,  $p < 0.01$ ), indicating that the relationship between logged household income and log-odds of having unauthorized births within province varies by the percentage of women in agriculture at the province level. Based on Model 5, in provinces with high percentage of women in agriculture (e.g., one standard deviation above the mean), the predicted slope for logged household income is  $-0.048^{\textcircled{3}}$ . Similarly, when the percentage of women in agriculture is set at its mean 67.68%, the predicted slope for logged household income is  $0.035^{\textcircled{4}}$ . In contrast, in provinces with a low percentage of women in agriculture (e.g., one standard deviation below the mean), the predicted slope is  $0.117^{\textcircled{5}}$ . The coefficient of household income is 0 when the

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<sup>③</sup>  $0.326 + (-0.0043) * (67.68 + 19.18) = -0.048$

<sup>④</sup>  $0.326 + (-0.0043) * 67.68 = 0.035$

<sup>⑤</sup>  $0.326 + (-0.0043) * (67.68 - 19.18) = 0.117$



percentage of women in agricultural labor force is set at 75.81%. In sum, in provinces with low percentages of women in agriculture, household income is positively associated log-odds of having unauthorized birth, while in provinces with high percentages of women in agriculture, household income is negatively associated with log-odds of having unauthorized births.

The complex relationship between household income and odds of having unauthorized births is depicted in the figure 1. Clearly, we can observe the negative association when women lived in a province with more than 75.81% of women working in agricultural sector while the positive relationship when women lived in a province with less than 75.81% of women working in agricultural sector.

Our hypothesis 2 and 3 are verified.

## **Conclusion and discussion**

In sum, the proposed hypotheses are verified by the multilevel analysis:

- (1) There is substantial variation in mean log-odds of having unauthorized birth across provinces.
- (2) The insignificant coefficient for logged household income is attributable to sharp provincial differentials in relationship between logged household income and log-odds of having unauthorized births.
- (3) In provinces with low percentages of women in agriculture, household income is positively associated with log-odds of having unauthorized birth, while in provinces with high percentages of women in agriculture, household income is negatively associated with log-odds of having unauthorized births.

We try to explain the complex relationship between household income and fertility behaviors from two aspects. On one hand, regions with high percentage of women working in agricultural sector are normally undeveloped, where women's social status is not high, families rely more on children's support and costs for having unauthorized children are affordable, so women in these regions tend to have higher probability to disobey the fertility policy. And the increase of income may coincide with the improvement of women's status and decision power in a family which contributes to the decline of fertility (McDonald 2000).

On the other hand, the story is reversed. Regions with low percentage of women in agricultural labor force are developed, urbanized and modern, in which women enjoy high social status and have freedom to work outside family. More importantly, women tend to participate in the labor force market in the contexts in which most women work outside (Hank 2002). However, a rapid expansion of education and employment among women in a patriarchal environment has generated a stark dilemma for women who would like to combine childbearing with a career (Frejka et al. 2010), so women tend to have fewer children (McDonald 2013). It is true especially in China because women are confronted with policy costs except work and family pressure. Taking these factors into account, only those wealthy families have extra resources to pay for

unauthorized births.

There are also a number of limitations to this study that should be recognized. First, the occurrence of unauthorized births is coded as a dichotomous variable. Thus, we only distinguish people who have unauthorized births from those who do not have. However, those who have only one authorized birth might be very different from those who have multiple unauthorized births. Second, all individual-level covariates are measured in 2005, whereas unauthorized births may occur between 1990 and 2005. Thus, level-1 variables used in this study are assumed to be proxies for characteristics that preceded the fertility behavior. Hierchman and Guest (1990) have also used this approach. Finally, China sex ratio and percentage of women in agricultural workforce are the average values for 1990 and 2000, which might not fully capture the contextual effects under the influence of which women make their fertility decisions. We try to seek these improvements in our future research.

In further pursuing this topic, we might consider three-level models. Individuals are nested within prefectures or other local communities, and prefectures or other local communities are nested within provinces. Also, we intend to include more macro predictors, since the results presented here indicate that significant variation among province mean log-odds of having unauthorized births remains to be explained even after controlling for child sex ratio and percentage of women in agriculture. Finally, we plant to disaggregate women having unauthorized births into those who have only one unauthorized birth and those who have multiple unauthorized births, because these might be two distinct groups.

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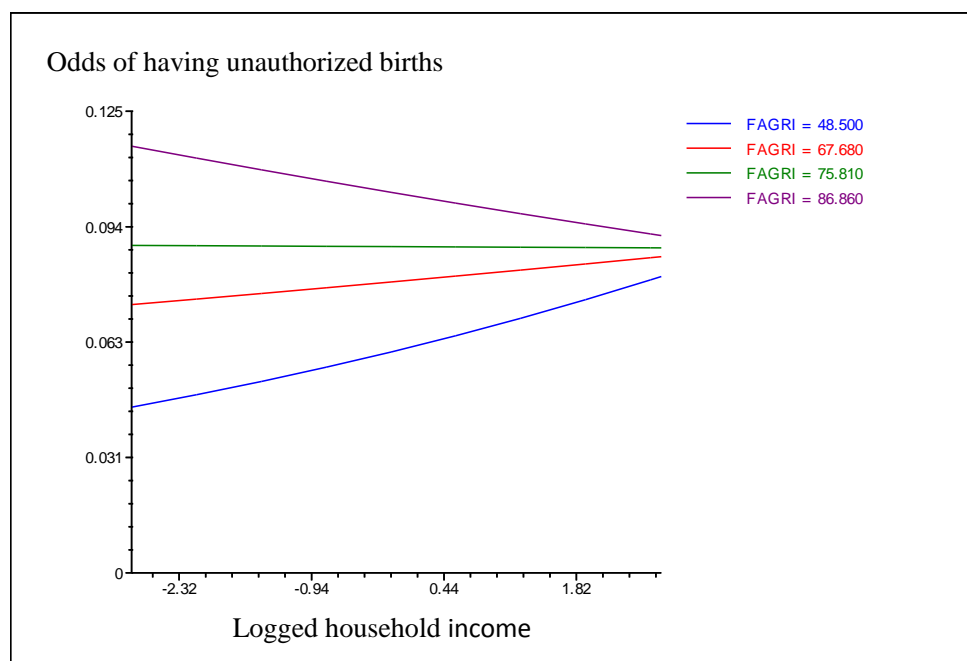
**Table 1. Descriptive Statistics for Variables in the Analysis**

Variables	M/%	SD
<b>Dependent Variable</b>		
Having unauthorized birth (%; 1 = yes)	18.95	
<b>Individual level predictors</b>		
Logged household income	6.65	1.41

Coresidence with Parents/In-laws (%; 1 = yes)	9.07	
Age at first birth	25.07	3.49
Age	38.01	2.79
Having old age insurance (%; 1 = yes)	24.45	
Having medical insurance (%; 1 = yes)	38.64	
Having a son within authorized children(%; 1 = yes)	63.27	
<b>Education</b>		
Illiterate (%; 1 = yes) (ref.)	3.38	
Primary (%; 1 = yes)	25.52	
Junior high school (%; 1 = yes)	47.23	
Senior high school (%; 1 = yes)	14.72	
College and above (%; 1 = yes)	9.15	
<b>Fertility policy types</b>		
Two-child policy (%; 1 = yes)(ref.)		
1.5-child policy (%; 1 = yes)	27.03	
One-child policy in rural areas (%; 1 = yes)	23.85	
One-child policy in urban areas (%; 1 = yes)	9.41	
<b>Province level predictors</b>	39.72	
Percentage of women in agriculture	67.68	19.18
Child sex ratio	113.79	5.62

Note: M = mean; SD = standard deviation; ref. = reference group. Individual level N = 36976;

Province level N = 30.



**Figure 1 The relationship between logged household income and odds of having unauthorized births by different percentage of women in agriculture**

Note: FAGRI is denoted as percentage of women in agriculture; logged income is centered at its group mean.

**Table 2. Two-level Hierarchical Generalized Linear Models of Log-odds of Having Unauthorized Births: Individual- and Province-level**

Predictors															
Fixed parameters	Model 1			Model 2			Model 3			Model 4			Model 5		
	Coef.		SE	Coef.		SE	Coef.		SE	Coef.		SE	Coef.		SE
Individual-level predictors															
Logged household income							0.002		0.012	0.03		0.03	0.326	**	0.125
Coresidence with Parents/In-laws(1 = yes)							-0.08		0.06	-0.07		0.06	-0.07		0.06
Age at first birth							-0.26	***	0.01	-0.26	***	0.01	-0.26	***	0.01
Having old age insurance(1 = yes)							-1.18	***	0.06	-1.18	***	0.06	-1.18	***	0.06
Having medical insurance(1 = yes)							-0.29	***	0.04	-0.29	***	0.04	-0.29	***	0.04
Age							0.18	***	0.01	0.18	***	0.01	0.18	***	0.01
Having a son within authorized children(1 = yes)							-0.8	***	0.03	-0.8	***	0.03	-0.8	***	0.03
Education (REF: Illiterate)															
Primary							-0.23	**	0.08	-0.22	**	0.08	-0.22	**	0.08
Junior high school							-0.63	***	0.08	-0.63	***	0.08	-0.62	***	0.08
Senior high school							-1.35	***	0.1	-1.34	***	0.1	-1.34	***	0.1
College and above							-1.88	***	0.13	-1.88	***	0.13	-1.88	***	0.13
Fertility policy types (REF:Two-child policy)															
1.5-child policy							1.26	***	0.05	1.27	***	0.05	1.27	***	0.05
One-child policy in rural areas							2.30	***	0.08	2.29	***	0.08	2.29	***	0.08
One-child policy in urban areas							1.14	***	0.05	1.14	***	0.05	1.14	***	0.05
Province-level predictors															
$\gamma_{00}$	-1.95	***	0.178	-	***	2.44	-	***	3.03	-14.07	***	3.03	-14.22	***	3.03
				16.37			14.07								
% of women in agriculture				0.011	+	0.007	0.015	+	0.008	0.014		0.009	0.015	+	0.008
Child sex ratio				0.12	***	0.022	0.1	***	0.028	0.1	***	0.028	0.1	***	0.028
Interaction															
% of women in agriculture * Logged household income													-	*	0.0017
													0.0043		
Random parameters															
	variance			variance			variance			variance			variance		
$u_{0j}$	0.929	*	0.25	0.366	*	0.099	0.574	*	0.15	0.576	*	0.15	0.575	*	0.15
$u_{1j}$										0.015	*	0.007	0.012	*	0.006

Notes: Individual level N = 36976; Province level N = 30. Coef. = Coefficient; SE = Standard Error.

+ $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$