# Intergenerational Care and Women's Labor Supply

Yuzhe Wang, Yida Xu, Shangzhi Xu

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#### Abstract

This paper uses data from CFPS in 2010, 2012, 2014, 2016, and 2018 to investigate the relationship between intergenerational care and women's labor supply in China. The results show that intergenerational care increases the employment rate for 20-49 years old women by at least 29 %. As the number of children per household increases, intergenerational care is less significant to the employment rate in general. Specifically for women living in urban areas, their employment rates are less robust to intergenerational care. The two-child policy and delaying retirement policy may lead to a divergence between the increase in the demand for intergenerational care and the decrease in its availability, which will intensify the conflict between young women's family responsibilities and employment behavior. Increasing the public care supply resources can be an effective way to alleviate this problem. There should be more flexible pronatalist and retirement policies that recognize the need for childcare.

#### 1 Introduction

With the disappearance of China's demographic dividend and aging population, the employment rate has become a popular research topic in Chinese sociology. In particular, the female labor force participation rate has drawn many scholars' attention. According to the data shown in Wu WeiPing's paper (2016) "House Prices and Women's Labor Participation in Decision-Making: Evidence from CHNS Data", the female labor force participation rate dropped by 11.24 % while the male labor force participation rate dropped only by 4.62 % from 1990 to 2010. Studies from a similar period provided insights into its reasons. Xiong Ruixiang and Li Hui's study "Child Care, Public Service and Off-farm Employment of Rural Married Women: Evidence from CFPS Data" (2016) showed that household child-rearing responsibilities are significantly hindering women from participating in the labor market. In addition, the Chinese government has published several

policies to encourage each family to have more than one child to deal with the problem of the declining birth rate. With these policies, women are more likely to face the dilemma of working and raising children, which could be a significant social problem in the future and deserve further research.

Moreover, we should note that Chinese parents often bear the responsibility to raise not only their own but their children's offspring (Du & Dong, 2013). This tradition is commonly known as intergenerational care. The data from CFPS (figure 1) also show that 31% of children from 0-16 were taken care of by their parents while 25% of the children were raised by their grandparents. However, in recent years, the Chinese government has made some efforts to validate the possibility of delaying retirement. With the dropping labor supply, people believe that this policy will be published shortly. When grandparents need to work longer, children may be less likely to be raised by them. Therefore, it is important to clarify the quantitative relationship between the employment of women and intergenerational care, which will be useful in analyzing the influence of delaying retirement policy.

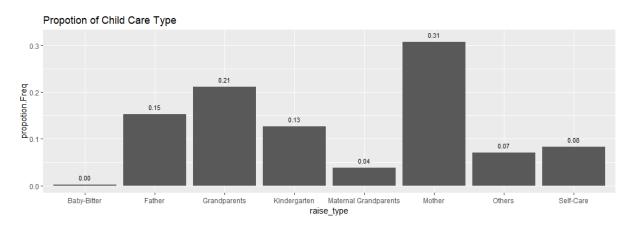


Figure 1: Proportion of Different Child Care Type

In conclusion, with the policies encouraging families to have more children and delaying retirement, Chinese women are facing greater employment pressure. In our paper, we mainly explore the relationship between intergenerational care and the female employment rate. In addition, we also analyze how other factors, such as the number of children and the structure of children's ages, will influence the employment rate of women. CFPS survey data (2010, 2012, 2014, 2016, 2018), Logit and Probit models are used to analyze the quantitative results of these relationships. With these results, we propose suggestions for the policies of encouraging more children and delaying retirement.

#### 2 Literature Review

Previous studies have shown that grandparental childcare would increase the supply of women's labor force. Ogawa & Ermisch (1996), Cardia & NG (2003), and Du (2008) suggested that, based on the data from Japan, the United States, and China respectively, living with parents reduced the time that women's need to devote to family, thus increase their likelihood to work full-time. Zamarro (2011) pointed out that grandmothers had become one of the main childcare source in Europe, and this "intergenerational resource transfer" encouraged the labor force participation of their offspring. Therefore, prolonging the working life of grandparents would affect the intergenerational care they could provide, and in turn, affects the labor supply of young mothers. However, these researches did not explicitly investigate the relationship between grandparental childcare and women's employment rate, and also neglected the potential endogeneity problem.

Some researchers attempted to solve the endogeneity problem by instrumental variables and fixed effects. Posadas & Vidal-Fernandez (2013) handled endogeneity with IV and FE estimates, finding that grandparental childcare availability significantly increased mothers' labor participation in the U.S., especially for socio-economically disadvantaged women due to the affordability of formal childcare. It is notable that "whether the maternal grandmother has passed away" was used by Posadas & Vidal-Fernandez as the dummy variable to employ IV methods. While FE estimates suggested an increase in the likelihood of labor force participation by 9% with grandparental childcare, IV estimates seemed to overestimate this effect, because socio-economically disadvantaged women are less likely to work and more likely to have a deceased mother. Arpino et al. (2014) used "whether grandparents (maternal or paternal) are alive" as the IV instead, and found that grandparental care significantly boosted the probability of women participating in the labor market in Italy, given China's special cultural background, such instrumental variables may not apply to China. According to figure 1, only 4% of children are raised by maternal grandparents, while 21% of children are raised by paternal grandparents.

There are some studies from China on similar topics. Lu et al. (2017) drew data from CFPS (China Family Panel Studies) until 2014, using "whether grandparents are all alive" and the proportion of people above 60 in the neighborhood committee as instrumental variables, and found that grandparental childcare increased women's labor force participation rate by 14.3%, much higher than the 6.3% increase for men. In addition,

the working time of women increases much more than men. Zou et al. (2018) focused on the relationship between grandparental childcare and female labor supply and used "whether paternal grandparents are alive" as the instrumental variable, with CFPS data until 2016, estimating that grandparental childcare increases the labor participation of married young women by 13% to 21%. Meanwhile, retirement significantly affects the availability of intergenerational care provided by grandmothers. Zou et al. also found that this effect was greater in the urban areas, opposite to the finding of Lu et al. that grandparental childcare affected the rural areas more significantly in terms of labor force participation.

To better deal with endogeneity, we made the following contributions: (1) The data used in our paper are from 2010 to 2018, which are the latest official data available on this subject. (2) We added IV and FE variables in Logit and Probit models to solve the endogeneity and check the robustness. (3) We select "whether paternal grandparents are alive" as the IV to fit with the cultural background in China. In addition, we discuss the influence of the policies of encouraging more children and delaying retirement.

This paper is organized as follows: Section 3 describes the data and initial analysis. Section 4 outlines the model settings. Section 5 presents the main results. Section 6 briefly discusses implications for policies and provides suggestions.

### 3 Data Description

The empirical analysis uses datasets from CFPS (China Family Panel Studies). CFPS is a nationally representative, biennial longitudinal survey of Chinese communities, families, and individuals launched in 2010 by the Institute of Social Science Survey (ISSS) of Peking University, China. The CFPS is designed to collect individual-, family-, and community-level longitudinal data in contemporary China. The studies focus on the economic, as well as the non-economic and the well-being of Chinese population, with a wealth of information covering such topics as economic activities, education, family dynamics and relationships, migration, and health. We used data from 2010, 2012, 2014, 2016, and 2018. The key advantage of CFPS is that it includes almost all the variables this research is interested in. Individual characteristics such as income, employment, health status, and living status can all be found in CFPS adult datasets. The childcare variables can be

found in CFPS child datasets and family variables (including the IV "whether paternal grandparents are still alive") can be found in family relationship datasets.

Table 1 presents some summary statistics for the baseline sample. We only choose the women whose ages range from 20-49 and are married. In China, women are officially allowed to marry from 20 years old and usually start to retire from 50 years old. The "work" variable is used to represent the labor supply of the woman. If the woman is employed, "work" equals 1, otherwise it equals 0. The "gpc" variable represents intergenerational (grandparental) care, which means that if the children are taken care of by their grandparents, "gpc" equals 1. Other variables listed in table 1 are all control variables included in our models.

After dropping missing data, we have 9,708 observations of women from different provinces and years. We compared variables between the subsamples with and without intergenerational care. Firstly, 83.7% of the women with intergenerational care are employed while only 64.8% of the women without intergenerational care are employed. These results demonstrated that intergenerational care helped to increase the female employment rate. Secondly, women with intergenerational care are more likely to have urban "Hukou" (Household Register System in China which has two types: registered rural residents and registered urban residents) and have higher education levels than the women without intergenerational care. The possible reason is that when women live in the urban area and have higher education levels, it is easier for them to find jobs. In addition, their jobs are usually more decent, which may lower the possibility for these women to resign and increase the possibility of intergenerational care. Interestingly, this finding may imply that women's work status also affects whether a child is taken care of by grandparents, causing endogeneity from reverse causality. We try to solve this problem by IV.

Figure 2 demonstrates the correlation between the main selected control variables, employment status, and intergenerational care. Among control variables related to children's characteristics, we found that if children are from 0-3 years old, the proportion of intergenerational care increases. After 3 years old, this proportion decreases. Further, as children's age increases, women's employment rate also increases. Moreover, when the number of children increases, both intergenerational cares and employment rates decrease. Note that we also include some dummies such as whether there is a child whose

age is from 0 to 2. The reason is that, in China, children go to kindergarten from 3 to 5 years old, and go to primary school from 6 to 12 years old. The reference group is whether there is a child who is more than 12 years old when the child is in middle or high school. To some extent, "children0to2", "children3to5" and "children6to12" control the education status of the children. Among control variables related to characteristics of husbands and families, it can be observed that the higher income level of husbands increases the possibility of intergenerational care and lowers the possibility of women's employment. In addition, the higher the husbands' education and family income levels, the higher the employment rate and intergenerational care. These correlations show that the control variables we selected here can be used to solve part of the problem of endogeneity and at least avoid part of the bias due to omitted variables.

Table 1: Summary Statistics

		ible I.	Summar	y Diansi			
variable_name	mean	$\operatorname{sd}$	min	max	mean_gpc_yes	mean_gpc_no	
work	0.693	0.461	0.000	1.000	0.837	0.648	
$\operatorname{gpc}$	0.238	0.426	0.000	1.000	1.000	0.000	
${ m inst\_care}$	0.075	0.263	0.000	1.000	0.000	0.098	
$father\_care$	0.037	0.188	0.000	1.000	0.000	0.048	
$\frac{-}{\text{care}}$	0.142	0.350	0.000	1.000	0.000	0.187	
hukou	0.260	0.438	0.000	1.000	0.309	0.244	
edu_year	8.323	4.459	0.000	22.000	9.612	7.920	
age	33.857	6.373	20.000	49.000	31.082	34.726	
$\operatorname{health}$	0.912	0.283	0.000	1.000	0.947	0.902	
${ m children 0to 2}$	0.228	0.420	0.000	1.000	0.297	0.206	
${ m children 3to 5}$	0.292	0.455	0.000	1.000	0.373	0.267	
${ m children 6to 12}$	0.555	0.497	0.000	1.000	0.483	0.577	
${ m children\_min\_age}$	6.548	4.274	0.000	15.000	5.088	7.005	
children_num_2	0.416	0.493	0.000	1.000	0.317	0.447	
${ m children\_num\_3}$	0.095	0.293	0.000	1.000	0.055	0.107	
children_num_age_15	1.430	0.639	1.000	6.000	1.373	1.448	
$edu\_year\_s$	9.232	3.947	0.000	22.000	10.111	8.957	
${ m health\_s}$	0.940	0.237	0.000	1.000	0.957	0.935	
${ m ln\_income\_s}$	9.957	1.106	0.000	14.403	10.147	9.897	
older 80	0.038	0.192	0.000	1.000	0.013	0.047	
$ ln_{income_family} $	10.693	0.953	2.079	15.214	10.995	10.598	
urban	0.463	0.499	0.000	1.000	0.502	0.451	
variable_name	Explan	ation					
work	If the	woman	is employ	ed, work	= 1, otherwise 0.		
${ m gpc}$	If the o	child is	taken car	e of by (1	maternal) grandpa	arents, gpc = 1.	
$\operatorname{inst}$ _care	If the o	child is	taken car	e of by ir	$_{ m nstitutions},  { m inst}\_{ m c}$	are = 1.	
${ m father\_care}$	If the o	child is	taken car	e of by fa	$ather, father\_care$	= 1.	
$other\_care$	If the o	child is	taken car	e of by o	thers, other_care	= 1.	
hukou	If the woman is registered urban resident, hukou = 1.						
${ m edu\_year}$	The education year taken by the woman.						
age	The age of woman.						
$\operatorname{health}$	The heath status of the woman. If healthy, health $= 1$ .						
${ m children0to2}$	If there is a child whose age is from 0 to 2.						
${ m children 3to 5}$	If there is a child whose age is from 3 to 5.						
${ m children 6to 12}$	If there is a child whose age is from 3 to 5.  If there is a child whose age is from 6 to 12.						
${ m children\_min\_age}$	If there is a child whose age is from 6 to 12.  The minmum age of the children.						
$\operatorname{children\_num\_2}^-$	$\mathbf{W}$ heth	er the r	number of	f children	is 2.		
${ m children\_num\_3}$	$\mathbf{W}$ heth	er the r	number of	f children	is 3.		
children_num_age_15	Total r	number	of childre	en whose	age is less than 15	Ó.	
edu year s	The ed	lucation	. year tak	en by the	e husband.		
$\frac{1}{1}$ health s	The he	eath sta	tus of the	husband	d. If healthy, healt	h = 1.	
$ \frac{-}{\ln \_{income}\_{s}} $			e of the h				
older80	$\mathbf{W}\mathbf{heth}$	er there	e is elders	whose a	ge is larger than 8	0.	
$ln\_income\_family$			e of the v				
		_			-ba unban an nat		

urban

Whether the family is living in the urban or not.

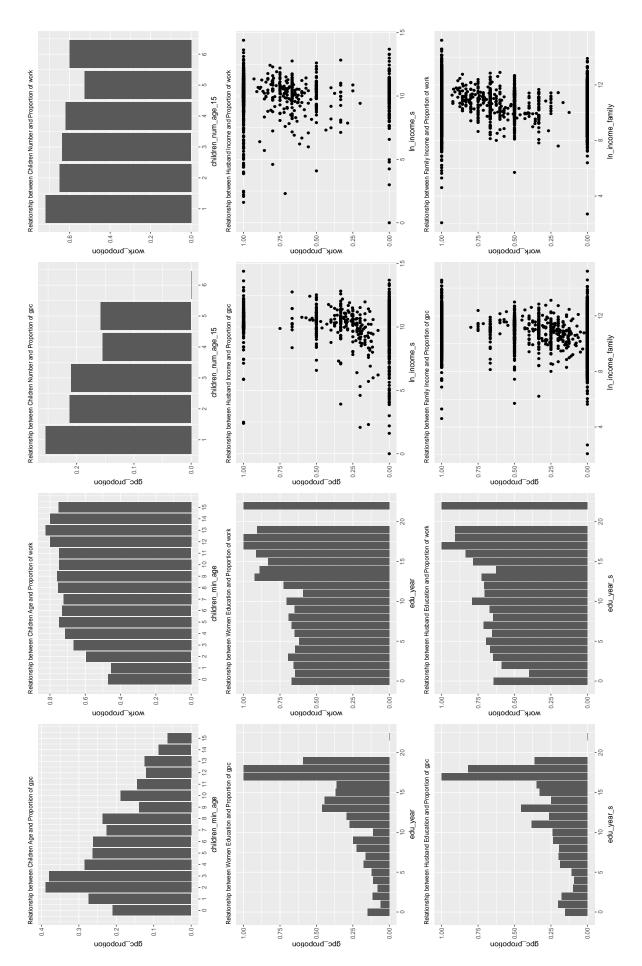


Figure 2: Summary Statistics Graphs

### 4 Model Settings

We firstly build the Logit and Probit models to find the relationship between intergenerational care and women's labor supply. The latent approach is given by:

$$work_{ijt}^* = \alpha + \beta gpc_{ijt} + \gamma x_{ijt} + \mu_{ijt}$$
 (1)

The "work" variable used in the Logit and Probit models stands for whether the woman is employed or not. If employed, "work" equals 1. Gpc is intergenerational care and x are other control variables listed in section 3.

However, since the data are collected from different provinces in China and different years, there may exist some fixed effects in these provinces and years. Therefore, we also include province dummies and year dummies to represent the possible fixed effects.

$$work_{ijt}^* = \alpha + \beta gpc_{ijt} + \gamma x_{ijt} + \theta province_j + \lambda year_t + \mu_{ijt}$$
 (2)

However, as mentioned in the data description, women's employment status also affects whether a child is taken care by grandparents. To address the reverse causality issue, this paper uses whether the paternal grandmother or grandfather is alive as the instrumental variable for intergenerational care. The reason is that whether the paternal grandmother or grandfather is alive usually has a positive relationship with intergenerational care availability and does not decide whether the woman is employed or not. Therefore, we estimate the effect of intergenerational care in the following approach:

$$work_{ijt}^* = \alpha_1 + \beta_1 g\hat{p}c_{ijt} + \gamma_1 x_{ijt} + \theta_1 province_j + \lambda_1 year_t + \epsilon_{ijt}$$
(3)

$$gpc_{ijt} = \eta_0 + \eta_1 grandparents\_alive_{ijt} + \eta_2 x_{ijt} + \eta_3 province_j + \eta_4 year_t + \psi_{ijt}$$
 (4)

Due to the pronatalist policy, Chinese are now allowed to have more than 1 child. However, the influence of intergenerational care may be different when the number of children is different. Therefore, to investigate different intergenerational care effects, we divide the sample into 3 groups: women with one child, women with 2 children, and women with more than 2 children, and use the same models in the previous part to obtain the quantitative results. In addition, the pronatalist policy focuses on the young urban

dwellers. Therefore, we also divide the sample into 2 groups: women living in urban areas and women not living in urban areas, and check whether there will be different effects of intergenerational care.

#### 5 Results

In table 2, the results of the Logit and Probit models show that intergenerational care positively affects the possibility that the woman will be the labor supply. The results without IV in columns (1), (3), (5), and (7) indicate that when we include the fixed effect, the coefficients do not change a lot and are still significant. However, the results with IV in column (2), (4), (6), and (8) demonstrate that when fixed effects are added, the coefficients of intergenerational care become less significant. The possible reason is that whether grandparents are alive is related to the medical level of the grandparents' residence. The medical levels are quite different among provinces in China. In megacities like Beijing and Shanghai, elders are more likely to live longer. Therefore, when we include both IV and province fixed effects, the significance of intergenerational care is lowered.

However, the coefficients' magnitude in table 2 is not meaningful. We need to evaluate the marginal effects of intergenerational care. According to table 3, columns (3) and (7) have similar results that, compared to the woman whose children are taken care of by herself and are under intergenerational care, the probability that this woman is employed increases by 29%. This implies the robustness of the results. The results in columns (4) and (8) indicate that, compared to the woman whose children are taken care of by herself, and with the availability of intergenerational care, the probability that th woman is employed increases by 34%.

Besides intergenerational care, father's care, institutional care, and others' care also increase the women's employment rate. Moreover, if there is a child whose age is from 0 to 2, mothers are less likely to work. The possible reason is that children from 0 to 2 are too young to be taken care of by others. Therefore, mothers tend to stop working and raise children by themselves. Another interesting finding is that when the husband's income is higher, the wife is less likely to be employed. When the family's income increases, the woman is more likely to work. The possible reason is that the family's income includes

women's income, and higher income usually represents better jobs, which yields the result that they are less likely to resign. The final finding is that women who live in urban areas are more likely to work, because there are more opportunities and higher salaries in cities.

Table 4 shows the results of Probit models based on different sample selections. The first 3 columns indicate that when there are more children, the effect of intergenerational care decreases. The last 2 columns imply that women who live in urban areas are more likely to be affected by intergenerational care.

## 6 Conclusion and Implications to the Policies

Given that the Chinese government has published several pronatalist policies and is planning to publish the delaying retirement policy, we use the data from CFPS in 2010, 2012, 2014, 2016, and 2018 to investigate the relationship between intergenerational care and women's labor supply. The results show that intergenerational care increases the employment rate of women from 20-49 years old by around 29% to 34%. We also found that with the increase in the number of children, intergenerational care is less significant, and women living in urban areas are more likely to be influenced by intergenerational care. Therefore, both the pronatalist policy and delaying retirement policy will significantly weaken the labor supply of women. Besides, when there are more children, the effects of intergenerational care are lowered, which further weakens women's willingness to work. In addition, these policies will have more influence on the women living in the urban areas, who tend to face a more intense conflict between working and taking care of children.

According to the results and discussion above, we suggest that the government should publish more flexible policies. For example, the government should give more protection to women with more children and guarantee their right to take care of their children without being fired. For the delaying retirement policy, the government should design more flexible details. For instance, if the old people have grandchildren that need to be taken care of, they can retire earlier. In these ways, the employment pressure from the new policies will be lower. Moreover, the availability and affordability of public childcare resources matter. One interesting question that deserves further research is the quality of intergenerational care among various options of childcare. It is meaningful to find out

how intergenerational care influences the growth of children in the long run.

Table 2: Regression Results

				Dependent variable:	iable:			
				work				
		logistic				probit		
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
gpc	$1.465^{***}$ $(0.068)$		1.495*** $(0.070)$		0.858***		0.868***	
gpc_hat		$1.297^{***}$ $(0.403)$		1.668* $(0.851)$		$0.802^{***}$ (0.241)		0.993* (0.506)
inst_care	$1.021^{***}$ $(0.105)$	$1.211^{***}$ (0.223)	1.044*** (0.108)	$1.381^{***}$ $(0.527)$	0.608***	0.726*** $(0.131)$	$0.612^{***}$ (0.062)	$0.811^{***}$ $(0.313)$
father_care	$1.073^{***}$ $(0.150)$	$1.072^{***}$ $(0.204)$	1.067*** $(0.152)$	1.179*** (0.344)	0.638***	$0.647^{***}$ (0.117)	0.625*** $(0.085)$	$0.697^{***}$ $(0.202)$
other_care	$0.834^{***}$ (0.083)	0.962*** (0.161)	0.802***	1.078*** $(0.373)$	0.501*** (0.047)	$0.576^{***}$ $(0.094)$	0.477*** (0.049)	$0.636^{***}$ $(0.222)$
hukou	-0.070 $(0.071)$	-0.034 (0.081)	0.037 $(0.074)$	0.065	-0.032 (0.041)	-0.016 (0.048)	0.033 $(0.043)$	0.043 $(0.051)$
edu_year	$0.046^{***}$ $(0.008)$	0.043*** $(0.009)$	0.047*** (0.008)	$0.039^{***}$ (0.011)	0.028***	$0.026^{***}$ $(0.005)$	0.028*** $(0.005)$	$0.024^{***}$ $(0.007)$
age	$0.039^{***}$ $(0.006)$	0.040***	$0.040^{***}$ $(0.007)$	$0.042^{***}$ (0.012)	0.023***	$0.024^{***}$ $(0.005)$	$0.024^{***}$ (0.004)	$0.025^{***}$ (0.007)
health	$0.212^{**}$ (0.084)	0.248** (0.097)	$0.202^{**}$ $(0.086)$	$0.217^{**}$ (0.100)	$0.129** \\ (0.050)$	0.148** $(0.058)$	$0.124^{**}$ $(0.051)$	0.130** $(0.060)$
children0to2	$-0.553^{***}$ (0.109)	-0.579*** (0.129)	$-0.620^{***}$ (0.111)	-0.560*** (0.176)	-0.329*** (0.065)	-0.353*** (0.078)	-0.369*** (0.066)	$-0.346^{***}$ (0.105)
children3to5	0.070 $(0.091)$	0.049 (0.099)	0.097 $(0.093)$	0.086 (0.102)	0.043 $(0.054)$	0.028 (0.060)	0.058 $(0.055)$	0.050 $(0.061)$
children6to12	0.114 $(0.071)$	0.108 (0.080)	$0.172^{**}$ $(0.073)$	$0.146^*$ $(0.083)$	0.067 $(0.042)$	0.064 $(0.048)$	$0.099^{**}$ $(0.043)$	0.087* $(0.049)$
children_min_age	$0.051^{***}$ $(0.012)$	0.039***	$0.046^{***}$ $(0.013)$	$0.040^{***}$ (0.015)	0.031*** (0.007)	$0.024^{***}$ (0.008)	$0.027^{***}$ (0.007)	0.023*** $(0.009)$

				Dependent variable:	variable:			
ı				work	ik			
		logistic	tic			probit	bit	
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
$_{ m children\_num\_2}$	0.023 $(0.082)$	-0.078 (0.094)	-0.117 (0.086)	$-0.196^*$ (0.100)	0.009 (0.049)	-0.050 $(0.056)$	-0.069 (0.051)	$-0.118^{**}$ (0.060)
children_num_3	0.044 $(0.149)$	-0.195 $(0.169)$	-0.174 (0.154)	-0.385** $(0.176)$	0.013 $(0.088)$	-0.124 (0.101)	-0.103 $(0.091)$	$-0.231^{**}$ (0.105)
children_num_age_15	-0.011 $(0.069)$	0.095 $(0.079)$	-0.045 $(0.070)$	0.068 $(0.081)$	-0.002 (0.041)	0.064 $(0.047)$	-0.025 $(0.041)$	0.045 $(0.048)$
edu_year_s	0.030***	$0.031^{***}$ $(0.009)$	0.021** $(0.008)$	$0.021^{**}$ $(0.010)$	0.018***	$0.018^{***}$ $(0.006)$	0.013** $(0.005)$	$0.012^{**}$ $(0.006)$
health_s	-0.136 (0.104)	-0.121 (0.118)	-0.170 (0.106)	-0.148 (0.120)	-0.079 (0.061)	-0.071 $(0.070)$	-0.097 $(0.062)$	-0.087 $(0.071)$
ln_income_s	$-0.184^{***}$ (0.031)	$-0.190^{***}$ (0.035)	$-0.187^{***}$ (0.032)	$-0.186^{***}$ (0.039)	$-0.102^{***}$ (0.018)	$-0.102^{***}$ (0.020)	$-0.106^{***}$ (0.018)	$-0.102^{***}$ (0.022)
older80	0.020 $(0.136)$	-0.097 $(0.156)$	-0.066 (0.139)	-0.152 $(0.160)$	0.020 $(0.079)$	-0.046 $(0.092)$	-0.031 $(0.081)$	-0.088 $(0.094)$
ln_income_family	0.336** $(0.035)$	$0.280^{***}$ $(0.054)$	$0.297^{***}$ $(0.039)$	$0.242^{***}$ (0.081)	$0.197^{***}$ $(0.021)$	$0.159^{***}$ $(0.032)$	$0.172^{***}$ (0.023)	0.138*** (0.048)
urban	$-0.245^{***}$ (0.057)	$-0.198^{***}$ (0.064)	$-0.367^{***}$ (0.061)	$-0.342^{***}$ (0.071)	$-0.148^{***}$ (0.034)	$-0.119^{***}$ (0.038)	$-0.220^{***}$ (0.036)	$-0.206^{***}$ (0.042)
Constant	$-3.591^{***}$ (0.399)	$-3.064^{***}$ (0.450)	$-2.951^{***}$ (0.623)	$-2.762^{***}$ (0.681)	-2.183*** (0.236)	-1.876** $(0.269)$	$-1.715^{***}$ (0.362)	-1.659*** (0.399)
Year Controls Province Controls	No No	No $No$	Yes $Yes$	Yes $Yes$	No $No$	No $No$	Yes $Yes$	Yes $Yes$
Observations Log Likelihood Akaike Inf. Crit.	9,708 -5,207.286 10,458.570	7,179 -4,105.470 8,254.940	9,708 -5,040.636 10,191.270	7,179 -3,982.059 8,072.119	9,708 -5,206.882 10,457.760	7,179 -4,104.374 8,252.748	9,708 -5,041.760 10,193.520	7,179 -3,980.415 8,068.830
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Table 3: Marginal Effects

	Dependent variable:							
				wo	rk			
		logis	stic			pro	bit	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(Intercept)	-0.717	-0.640	-0.578	-0.568	-0.737	-0.653	-0.571	-0.572
gpc	0.293		0.293		0.290		0.289	
gpc hat		0.271		0.343		0.279		0.342
inst_care	0.204	0.253	0.204	0.284	0.205	0.253	0.204	0.280
father care	0.214	0.224	0.209	0.242	0.215	0.225	0.208	0.240
other care	0.167	0.201	0.157	0.222	0.169	0.201	0.159	0.219
hukou	-0.014	-0.007	0.007	0.013	-0.011	-0.006	0.011	0.015
${ m edu\_year}$	0.009	0.009	0.009	0.008	0.009	0.009	0.009	0.008
age	0.008	0.008	0.008	0.009	0.008	0.008	0.008	0.009
health	0.042	0.052	0.040	0.045	0.043	0.051	0.041	0.045
${ m children0to2}$	-0.111	-0.121	-0.121	-0.115	-0.111	-0.123	-0.123	-0.119
${ m children 3to 5}$	0.014	0.010	0.019	0.018	0.015	0.010	0.019	0.017
${ m children6to} 12$	0.023	0.023	0.034	0.030	0.023	0.022	0.033	0.030
children min age	0.010	0.008	0.009	0.008	0.010	0.008	0.009	0.008
children num 2	0.005	-0.016	-0.023	-0.040	0.003	-0.017	-0.023	-0.041
children num 3	0.009	-0.041	-0.034	-0.079	0.004	-0.043	-0.034	-0.080
children num age 15	-0.002	0.020	-0.009	0.014	-0.001	0.022	-0.008	0.016
edu year s	0.006	0.006	0.004	0.004	0.006	0.006	0.004	0.004
health s	-0.027	-0.025	-0.033	-0.031	-0.027	-0.025	-0.032	-0.030
ln income s	-0.037	-0.040	-0.037	-0.038	-0.034	-0.036	-0.035	-0.035
older80	0.004	-0.020	-0.013	-0.031	0.007	-0.016	-0.010	-0.030
ln income family	0.067	0.058	0.058	0.050	0.067	0.055	0.057	0.047
urban	-0.049	-0.041	-0.072	-0.070	-0.050	-0.042	-0.073	-0.071

Table 4: Results of Probit Models Based on Different Sample Selections

		i	Dependent variabl	e:	
			work		
	1 child	2 children	>=3 children	living in urban	living in rural
gpc	$1.000^{***} \\ (0.051)$	0.781*** (0.072)	$0.127 \\ (0.165)$	1.015*** (0.062)	$0.747^{***}$ $(0.053)$
Constant	-2.488*** (0.431)	-1.115** $(0.541)$	0.975 $(1.103)$	-2.559*** $(0.522)$	-0.798 $(0.676)$
Other Controls	Yes	Yes	Yes	Yes	Yes
Observations Log Likelihood Akaike Inf. Crit.	6,183 -3,028.600 6,153.200	2,985 -1,613.980 3,317.960	539 $-305.612$ $683.225$	4,492 $-2,145.371$ $4,396.741$	5,215 -2,820.001 5,738.002

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

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