DOES RELIGION INFLUENCE THE LABOR SUPPLY OF MARRIED WOMEN IN CHINA? —AN ECONOMIC EMPIRICAL ANALYSIS

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ABSTRACT

Existing studies rarely discuss the influence of religious faith in China, this study empirically investigates these affections on married women's labor supply and employment status. The estimation presents two main outcomes which differ with literatures: (i) the religious pious only affects married women's working hours in rural significantly. (ii) Although the result demonstrates insignificant effect in the variable of couple's faith, it seems that women who married the spouse with identical faith may cause positive incentive to the labor market, contrary with the findings in the previous researches.

KEYWORDS

China, religious participation, women's labor supply.

1. INTRODUCTION

As the rapid economic development in China, more and more researches topics being attend increasingly. However, some issues still unnoticed or insufficient in the literatures, the issue of religion economics is one example. Since the pioneered study, many literatures discuss, and other issues derived such like religion participation and income, economic development, social trust, labor supply, market competition, education choice etc, but these empirical studies focus on Europe and America mostly. Fewer studies analysis the influence of religion in Chinese world and the empirical samples were limited in specific village or regions and cause less representative in the study outcome [1-11].

While there is evidence to suggest that religion influences married women in their decision to supply labor. Two major concerns are (i) women who marry outside their faiths may have incentives to make stronger commitments to the labor market and (ii) the frequency of religious activity participation weakly affects women's labor participation decisions [12,13].

In this note, we examine religion's influence (religious pious, participation, couple's faith etc) in the labor supply of married women in China and apply the nationwide, continuous, comprehensive and large social survey which named Chinese General Social Survey (CGSS) as the empirically database.

The remainder of this article is organized as follows: Section II introduces our empirical method and data used in this study. Section III presents estimation results and section IV offers conclusion.

2. EMPIRICAL METHODOLOGY AND DATA

This study used OLS and Probit model to investigate the influence of religion in married women's labor participation decisions. The following estimated model was estimated:

$$\text{Work hour}_i = \alpha + \beta_1 \text{ Couple faith}_i + \beta_2 \text{ Pious}_i + \beta_3 \text{ Religion participation}_i + \beta_4 \text{ Education}_i + \beta_5 \text{ Age}_i + \beta_6 \text{ Age Square}_i + \beta_7 \text{ Couple education}_i + \beta_8 \text{ Couple income}_i + \beta_9 \text{ Children}_i + \beta_{10} \text{ Urban}_i + \beta_{11} \text{ Parents age}_i + \beta_{12} \text{ Parents education}_i + \varepsilon_i \quad (1)$$

$$\text{Work status}_i = \alpha + \beta_1 \text{ Couple faith}_i + \beta_2 \text{ Pious}_i + \beta_3 \text{ Religion participation}_i + \beta_4 \text{ Education}_i + \beta_5 \text{ Age}_i + \beta_6 \text{ Age Square}_i + \beta_7 \text{ Couple education}_i + \beta_8 \text{ Couple income}_i + \beta_9 \text{ Children}_i + \beta_{10} \text{ Urban}_i + \beta_{11} \text{ Parents age}_i + \beta_{12} \text{ Parents education}_i + \varepsilon_i \quad (2)$$

Where Work hour represents women's working hours per week and Work status is a binary choice which describes their employment status. We evaluate whether the faith, pious or the participation of religious activities affect women's working time and labor decisions.

Table 1: Variable Definition and Description

Variable	Definition	Mean
Work hour	Women's work hours per week.	32.595
Work status	Dummy: 1 if she has a job now, 0 otherwise.	0.719
Couple faith	Dummy: 1 if she has a job now, 0 otherwise.	0.072
Pious	The sincere of religious beliefs: 1: no belief. 2: very impious. 3: less impious. 4: no difference between pious and impious. 5: more pious. 6: very pious. 7: extremely pious. 0: otherwise.	5.462
Religion participation	The frequency of religion activities:	0.173

	0: never participate activities.	
	1: had to participate in religious activities within one year.	
	2: had to participate in religious activities within one month.	
	3: had to participate in religious activities within week.	
Education	Her education level (years).	9.142
Age	Her age.	45.388
Couple education	The education level of husband (years).	8.960
Couple income	The income level of husband last year (unit: thousand RMB).	17.570
Children	The number of children.	1.770
Parents age	The average age of her parents.	73.864
Parents education	The average education level of her parents (years).	4.003
Urban	Dummy: 1 if she is living in the urban, 0 otherwise.	0.551

Notes. 1117 observations.

We used the database in CGSS, this is a biennial household statistical survey data and is similar with Current Population Survey in American. In the study we collect the newest published data in 2014 which cover the survey during the year 2009 (1117 observations). The variable definition and description lists in Table1. We can find that 71.9% women are at employment situation and the mean working time is near to 32.6 hours a

week. Other variables related to religion indicates that only 7.2% couple have the same faith, the degree of religious pious is 5.462 and participation of religious activities is between year and months averagely.

3. RESULTS

Table 2: Estimation Results

	Work_hour (OLS)			Work_status (Probit) Marginal Effect		
	Total	Urban	Rural	Total	Urban	Rural
Couple faith	4.960 (3.792)	3.753 (4.160)	4.935 (5.743)	0.049 (0.044)	0.050 (0.090)	0.025 (0.085)
Pious	-0.741 (0.473)	0.066 (0.553)	-1.274** (0.626)	-0.005 (0.006)	0.005 (0.012)	-0.012 (0.010)
Religion participation	-0.858 (1.516)	-0.749 (1.733)	-1.548 (2.037)	-0.006 (0.019)	-0.007 (0.038)	-0.008 (0.030)
Education	0.046 (0.301)	0.120 (0.352)	0.201 (0.402)	0.006 (0.004)	0.020*** (0.008)	2.721E-04 (0.006)
Age	2.540*** (0.573)	1.654*** (0.601)	2.550*** (0.736)	0.031*** (0.007)	0.084*** (0.016)	0.044*** (0.010)
Age square	-0.033*** (0.006)	-0.028*** (0.006)	-0.031*** (0.008)	-3.843E-04*** (7.000E-05)	-0.001*** (1.800E-04)	-5.424E-04*** (1.100E-04)
Couple education	-0.766** (0.339)	-0.553 (0.359)	-0.401 (0.465)	-0.001 (0.004)	-0.019** (0.008)	1.011E-3 (0.007)
Couple income	-0.074* (0.038)	-0.048 (0.033)	-0.099 (0.077)	-0.001 (4.900E-04)	-1.507E-04 (7.000E-04)	-0.002** (0.001)
Children	-0.196 (1.117)	2.063 (1.302)	-0.107 (1.451)	0.006 (0.014)	0.065** (0.030)	0.037* (0.022)
Urban	5.030*** (0.810)			0.127*** (0.028)		
Parents age	0.122 (0.132)	0.061 (0.163)	0.188 (0.171)	0.002 (0.002)	0.003 (0.004)	0.001 (0.002)
Parents education	-0.231 (0.337)	0.228 (0.325)	-0.109 (0.527)	0.006 (0.005)	0.011 (0.007)	0.007 (0.008)
Constant	-9.207 (13.124)	6.831 (14.929)	-18.814 (17.182)			
R-square	0.106	0.179	0.059			
Marginal effect after Probit				0.858	0.492	0.772
Sample	1117	615	502	1117	615	502

Notes. All estimations are computed using OLS and Probit estimation. ***=1%, **=5%, *=10%.

The results of the analysis are reported in Table 2. First, the OLS results in total sample indicate the coefficient of age, urban have positive effects in working time significantly. The increase in age implies the accumulated experience brings positive influences (2.540) but diminishing marginal effect (-0.033) on working hours, similar outcomes also appear in the estimation of urban and rural samples. In addition, the OLS estimation finds the higher level of couple's education and income, the weaker incentive to working hour in married women.

Second, we find the influence of religion such as religious pious, participation bring negative impact to married women in the times of their labor supply and consist with previous studies, but only the variable pious emerges significant effect (-1.274) in rural [5,6,13].

Table 2 further lists the marginal effect which set Work status as the dependent variable. The education level herself, age and the number of children imply the incentives to make stronger commitments to the labor market in urban sample (0.020). The husband's education, income cause negative affection in urban and village separately. It's worth noting that the results demonstrate insignificant effect in the variable of couple's faith in marginal effect, but it seems that women who married the spouse with identical faith may cause positive incentive to the labor market and the coefficient of couple faith contrary with previous studies' findings [13]. A possible explain maybe the economies of scale in the single-faith couple [14]. Single-faith household benefits from economies of scale as they can take the same transport or the time allocation in religion and then reduce the faith cost. In our opinion, women have positive incentive to the labor market which may caused by the declines of opportunity cost in religion because the economies of scale in single-faith couple

4. CONCLUSION

To investigate that how the religion affects the married women's labor supply and employment decision which issues play a critical role at the economics of religion. Our study investigates whether religion significantly determinates the married women's labor participation and the influences on married women's employment decisions by religious intermarriage in China. Using the Chinese General Social Survey (CGSS) and econometric approaches (OLS and Probit model), this paper finds two main results which includes one is that the religiosity significantly affects the married women's working hours in rural areas and the other one is that the religious intermarriage drives an insignificant but positive influential to affect the married women participate the labor market. The latter result is different with the evidence of past literatures. A possible explain may come from the economies of scale in the single-faith couple. Single-faith household benefits from economies of scale and then reduce their faith cost, women who married the spouse with identical faith may cause positive incentive to the labor market by the decline of the opportunity cost in religion.

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