Proceedings of the 3rd International Conference on Business and Policy Studies
DOI: 10.54254/2754-1169/106/20241569

Public Health Insurance and Labor Supply of Middle-aged and Elderly People in China

Rui Zeng[1,a,*]

[1]*Department of clinical, China Medical University, Shenyang, 110001, China*
a. rayz66439619@gmail.com
**corresponding author*

Abstract: According to cross-sectional data in 2013 wave and 2015 wave of CHARLS, there is research for effects of public health insurance on labor supply of people who are middle-aged and elderly in China by Ordinary Least Square. China is facing severe labor supply problems because of the aging population. Moreover, people who are middle-aged and seniors play a significant role in Chinese labor market. The paper will focus on studying labor participation and the labor hours of middle-aged and older adults. Meanwhile, public health insurance is one of the focuses of this research. Nowadays, there is a significant public health insurance named New Rural Cooperative Medical insurance (NRCMI), which has been implemented for many years. It aims to support the health status of people who are middle-aged and seniors. After a series of calculations and studies, it shows that NRCMI has great effects on labor decisions of people in middle-aged and seniors. NRCMI can improve the labor participation by 11.6 percentage points, and it can also increase the labor hours by 239.343 hours. Therefore, NRCMI has a tremendous impact on China's labour supply, and the government should increase the promotion of NRCMI and ensure the full implementation.

Keywords: Labor supply, Middle-aged and elderly people, public health insurance, Ordinary Least Square, New Rural Cooperative Medical Insurance.

1. Introduction

There is a huge change in population structure in China, and the trend of an aging population in China is more and more obvious. Middle-aged and elderly people are beginning to account for a large proportion in the country. According to the analysis, the proportion of the age groups 65 years and over has increased from 9.4% in 2012 to 14.9% in 2022, which has seen growth of about five percentage points in a decade [1]. Meanwhile, China's population has continued to mature, with the median age rising from around 20 to about 37 in 2020 since 1970 [2]. According to projections, there will be more than 300 million individuals over 60 in 2024, 500 million in 2048, and 524 million at the peak in 2052 [3]. Of course, the country has also entered a different phase of its aging society, and along with it, the nation is experiencing some serious issues.

Labor supply plays a significant role in every country, and it is closely related to the proportion of young population in a country. In other words, there will be bad effects on labor participation and labor hours if proportion of people who are middle-aged and seniors increases in a country. As the aging process intensifies, the percentage of the population that is working age, the labour supply, and

DOI: 10.54254/2754-1169/106/20241569

the labour force participation rate will all steadily decline due to the growing number of older people in the general population [4].

The reason why labor supply decreases with population aging is that people will consider whether to participate in labor and decide whether to shorten labor hours based on their health status. The physical functions of people who are middle-aged and seniors will decline to varying degrees with aging, and the trend of chronic disease incidence, like prevalence of hypertension and cardiovascular morbidity rate, is increasing among this group of people in China, even psychological issues are also beginning to emerge. Otherwise, middle-aged, and elderly people must consider the economic losses caused by indirect or direct health damage during the labor process, and they have to weigh the losses and labor benefits to make final decisions. Therefore, health factors play a crucial role in the labor participation and labor hours.

Considering society's aging and the relationship between labor supply and population age structure, the Chinese government should focus on social security for people who are in middle-aged and seniors. China's healthcare security system is an important institutional framework that lowers medical costs, enhances well-being, and upholds social stability and peace. The goal of creating a national medical security system is to allay people's concerns about getting sick and needing medical attention [5]. The three parts of the universal medical insurance program created by the Chinese government are New Rural Cooperative Medical Insurance Scheme, Urban Employees Basic Medical Insurance, and Urban Residents' Basic Medical Insurance [6]. Effects of NRCMI on labour participation and labor hours will be the main topic of this article. NRCMI is a volunteer medical insurance program that was launched in 2003 to assist persons living in rural areas. And it has achieved comprehensive coverage from pilot projects in some little counties and cities in 2015, with an increasing participation rate and security efforts year by year. The number of participants has reached 835 million now, and the participation rate has increased from 75% at the beginning to nearly 99% today, which means that comprehensive coverage of rural medical insurance is basically achieved.

This paper will explore the complex relationship between NRCMI and labor supply of people who are middle-aged and seniors in China. Also, I will address key issues related to the impact of NRCMI on labor participation and labor hours pf certain population. By researching these relationships, the paper will expose how NRCMI encourages or hinders the labor participation and labor hours of people by affecting their health and concerns. Ordinary Least Square will be used to consider covariant variables to present the impacts of NRCMI in many areas.

The paper's structure is organized as follows. It starts by reviewing relevant literature as well as comprehensively understanding the current research status about public health insurances and labor apply in China. Then, the paper will introduce the datasets and present descriptive and demographic statistics. The fourth section will conduct empirical analysis and present the empirical results. The last section will be a conclusion summarily.

2. Literature Review

The paper is focused on public health insurance and labor supply. As is well known, public health insurance is for people's health concerns. Furthermore, a large body of work has been written about the connection between labour supply and health. Cai noted that for both men and women, health had a favorable and significant impact on entering the workforce, which means individuals in greater health are very easy to provide labor supply. In addition, Cai acknowledges the potential endogeneity of health, which means that individuals may strategically report poor health conditions to justify not participating in the labor market. Research has shown that health is an endogenous rather than an exogenous (independent) variable, therefore health should be seen as a component of the labor supply decision-making process [7]. And In 2023, Blundell, Britton, Dias, and French researched influence

DOI: 10.54254/2754-1169/106/20241569

of health on labor participation and labor hours in retirement, and they suggested that a reduction in health can account for as much as 15% of the employment decline between 50 and 70 years of age. Blundell et al. found that there are other factors that can also affect the impact of health on labor participation, such as education. Among people with lower levels of education, the influence of health on employment is more pronounced, especially among high school dropouts, and the impact of health often decreases with the improvement of education level [8].

Since health plays a significant role in labor decision, public health insurance also affects people's decisions directly or indirectly. In 2019, Colman, Dave and Lenhart studied employer-sponsored insurance (ESI), which is the insurance that allows organizations to take advantage of the advantages of scale and risk sharing that group insurance policies offer, and found that there were two phenomena related to influence of public health insurance on labor participation and labor hours in the United State, which is job lock as well as job push. Job lock means some people do not want to leave their current job due to fear of losing low-cost ESI and may continue to work in jobs that they are not fully satisfied with. Job push means that some people in the United State actively seek new jobs or work longer hours specifically to obtain ESI [9]. The study suggested clearly that people would change their labor decision for health insurance directly. In 1995, Gruber and Hanratty discussed National Health Insurance (NHI) in Canada, and they figured out that employment increased after the introduction of NHI in Canada, while NHI in America was often against the statement of their negative employment results. And they found that NHI increased labor participation and wages, but the average number of labor hours didn't change [10]. Also, they suggested that health insurance can influence employment positively to some degree. Boyle and Lahey examined health insurance and the decisions older workers make about their labour supply. They discovered that certain relatively disadvantaged subpopulations might increase their labour force participation after gaining greater access to public insurance, which would be compatible with the favorable health impacts of healthcare access or a reduction in the work-related disincentives for these individuals [11]. This also supports that public insurance can have significant labor market effects for older people. Bai, Zhang and Liu discussed public medical insurance system, especially the new rural cooperative medical care system (NRCMS) in China. And they found that public health insurance in China can significantly improve labor participation and labor hours by benefiting individual health status. Therefore, public health insurance works sensibly, and it can alleviate the bad impact of population aging and the decreasing labor supply in China [12].

However, some studies hold a negative attitude towards health or public health insurance can actively promote labor supply. Tan, Chang, Guo, and Wu figured out that health factors would not have influence of labor decisions made by rural seniors in China. In the study, deterioration of health would not decrease elderly people's labor participation and labor hours significantly in rural areas of China by both the subjective (self-reported health status) and objective (hypertension diagnosed or not) health indicators. And Tan et al. mentioned a phenomenon named ceaseless toil, which means that people who are elderly would work their whole life even if they are in bad health status [13]. This study points out the particularity of labor decisions made by rural elderly people in China, and factors that influence the labor participation and the labor hours of people who are middle-aged and seniors should get further research. In 2020, Liu, Sun, Gu, and Ho suggested that there were bad effects recorded on the non-farm labor supply, and its effect varies depending on the kinds of insurance. In the study, the new cooperative medical insurance encouraged farmers to quit nonagricultural sectors and turn to participate in family agricultural jobs in rural areas, while public medical insurance encouraged farmers to leave the labor market directly, which decreases labor supply [14].

As mentioned above, researchers reveal the relationship between labour and health insurance in different regions, but studies almost focus on developed areas. They ignore the effect of health

DOI: 10.54254/2754-1169/106/20241569

insurance in some developing areas, so my study will fill this gap and discuss rural areas in China. Also, several health insurance policies in China have not been studied in detail, and my studies will focus on one of them. I will study health insurance named New Rural Cooperative Medical Insurance (NRCMI), which is promoted in rural areas of China, and this study will use the data of people who are middle-aged and seniors to analyze effects in detail. In addition to regional differences, there are also debates about whether health insurance can motivate labour supply positively or not, as mentioned before. This issue is more complex, and the situation in each region is different. In some regions, medical insurance has a positive effect, while in some regions it does not. Similarly, the effects of health insurance on labour supply in rural areas of China are still unknown, and my research will analyze this aspect. The study will disclose the specific effects of NRCMI on labour supply in rural areas of China. I will separate people into different groups according to their specific situations, like gender, health level, income, and marital status, and make detailed statistics on the labour participation and working hours of these groups of people to provide powerful support for my conclusion. Also, the study will use Ordinary Least Squares to systematically analyze data and draw conclusions. In a word, my study will reveal the effects of NRCMI on the labor participation and the labor hours of people who are middle-aged and seniors in rural areas of China in detail.

3. Background

In 2003, China launched a community-based medical insurance system in rural areas, the New Rural Cooperative Medical Insurance (NRCMI). Rural insurance is a voluntary insurance plan for residents who live in rural areas. Risk-sharing units were established in rural counties, local governments, and the central government. In 2014, 98.9% of residents (about 736 million people) in rural China had participated in NRCMI. It is very important in the medical care of rural residents in our country and has attracted people's attention to rural health services and safety of medication. Subsidizing medical expenses through rural health insurance is critical to breaking financial barriers to health care and decreasing large medical expenses, and it has been shown to help reduce financial risks for rural residents [15].As for medical subsidies, in the initial stage of this policy, the government spent 10 yuan per person per year for rural residents nationwide, and the number increased to 40 yuan per person in 2007. By the end of 2020, the subsidy benefits have increased to 550 yuan. The total types of medicine participating in reimbursement have exceeded 2500 [16].

4. Descriptive Statistics

4.1. Summary statistics

In Table 1, it can tell the statistics of all variables which are used in our basic estimate for observations aged 45 and over. Specifically, it is obvious that around 66.1% of people who are middle-aged and seniors have New Rural Cooperative Medical Insurance (NRCMI), which is a high number. This means public health insurance is quite universal in China. As for labor supply, the labor participation rate is approximately 62.4%, and the average labor hours are approximately 968 hours. This means that the labor supply is quite sufficient among those aged 45 and older people according to labor participation and average labor hours. As for other covariates, the average age for statistics is around 60 years old, and there are 3.9% of people who only have a middle school degree, while 81.9% have an undergraduate degree. Also, around 74.3% of people are married, and the statistical gender ratio is near 1:1. What's more, the average individual income is around 1424.39 Yuan, and there are 11% of people who are with pension. As for their children, the average children's financial support is 4375.17 Yuan, and the average number of children is more than 2. As for hobbits, 9% of people counted smoke, and 36.4% of people drink, while 67.6% of people do physical activities.

DOI: 10.54254/2754-1169/106/20241569

Table 1: Summary Statistics

Varible	Notes	Mean	Obs
Labor participation	Binary variable	0.624	19991
Labor hours	Continuous variable	968.306	19920
NRCMI	Continuous variable	0.661	19991
Self-rated health	Binary variable	0.623	19991
Age	Continuous variable	60.141	18136
The squared age	Continuous variable	3720.154	18136
Middle school	Binary variable	0.039	19991
Undergraduate	Binary variable	0.819	19991
Marital status	Binary variable	0.743	19991
gender	Binary variable	0.501	19991
Individual income	Continuous variable	1424.388	19991
pension	Binary variable	0.110	19991
Whether get children' financial support	Binary variable	4375.169	19991
take_care	Binary variable	0.373	19991
Number of children	Continuous variable	2.527	12448
smoke	Binary variable	0.090	19991
drink	Binary variable	0.364	19991
Do physical activities	Binary variable	0.676	19991

Note: NRCMI represents New Rural Cooperative Medical Insurance.
Source: CHARLS data in 2013 wave and 2015 wave.

4.2. Labor supply by Health Status

Figure 1 and 2 illustrate the labor participation and labor hours of people who are middle-aged and seniors at different health status. In Figure 1, labor participation is high among people who are middle-aged and seniors, while the percentage of labor participation for those who are healthy is much higher than that of unhealthy people. And the labor participation of unhealthy people is around 60%, while the labor participation of healthy people is more than 60%. In Figure 2, as for labor hours, the labor hours are high totally. Specifically, the labor hours of unhealthy people are around 900 hours, while the labor hours of healthy people are more than 1,000 hours.

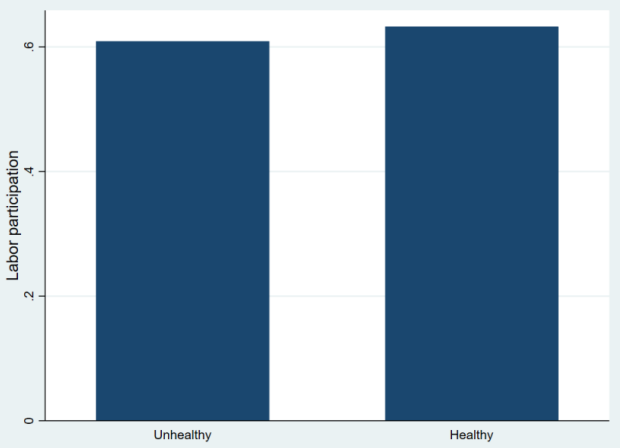

Figure 1: Labor Participation Trend by Health status in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

DOI: 10.54254/2754-1169/106/20241569

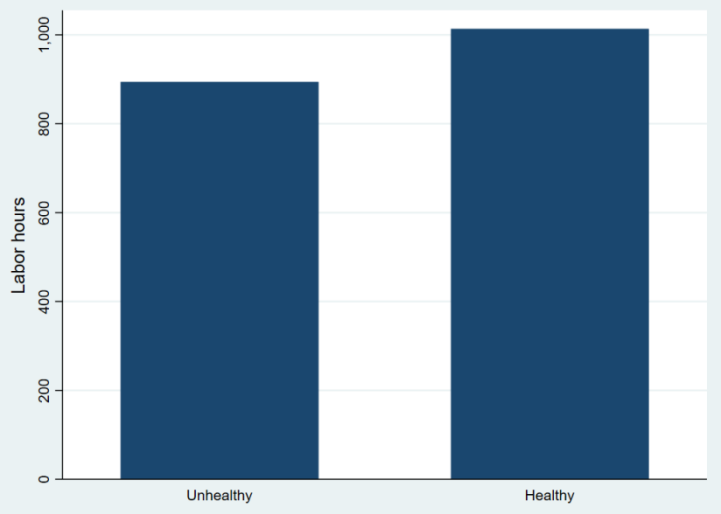

Figure 2: Labor Hours Trend by Health status in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

4.3. Labor supply by Gender

Figure 3 and Figure 4 illustrate the labor participation and the labor hours of people who are middle-aged and seniors at different genders. Generally, labor participation and labor hours are high among male people. In contrast, females labor participation and working hours are slightly lower. In Figure3, male's labor participation rate far exceeds 60%, while female's labor participation rate is slightly under 60%. In Figure 4, male's labor hours are more than 1,000 hours, while female's labor hours are around 800 to 900 hours.

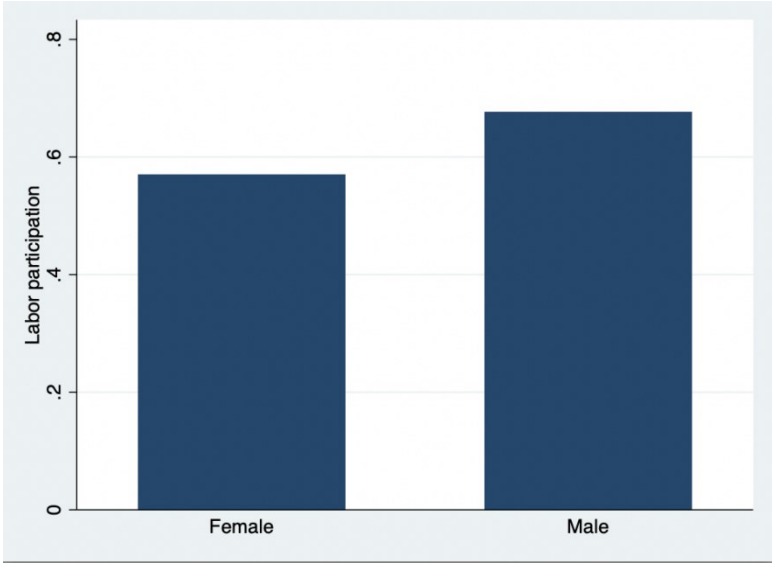

Figure 3: Labor Participation Trend by Gender in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

DOI: 10.54254/2754-1169/106/20241569

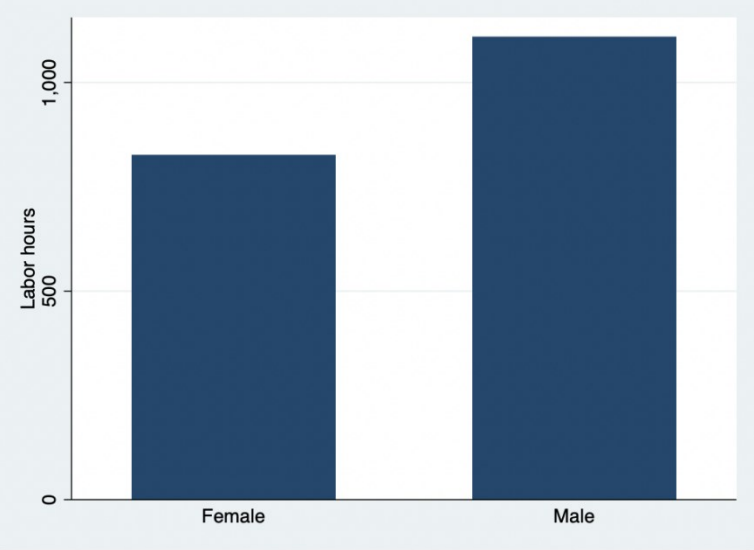

Figure 4: Labor Hours Trend by Gender in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

4.4. Labor supply by Income

Figure 5 and Figure 6 illustrate the labor participation and the labor hours of people who are middle-aged and seniors at different income levels. From the previous text, it is shown that the average income is 1424.388 Yuan, with an income greater than or equal to 1424.388 being a high income and an income less than 1424.388 being a low income. Generally, labor participation and labor hours are high, regardless of whether people are in low income or high income. However, in Figure 5, people with high income have significantly higher labor participation rates and labor hours than those with low income. Specifically, the labor participation rate of people with high income exceeds 80%, while the labor participation rate of people with low income is around 60%. And in Figure 6, people with high income have more than 1,000 labor hours, and people with low income have less than 1,000 labor hours.

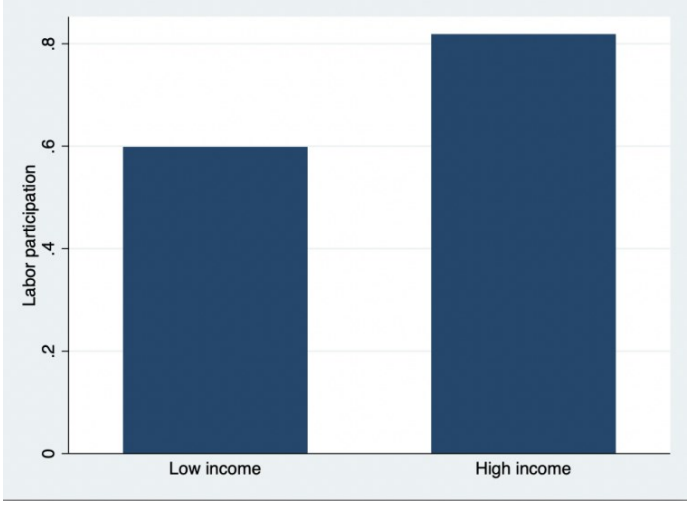

Figure 5: Labor Participation Trend by Income in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

DOI: 10.54254/2754-1169/106/20241569

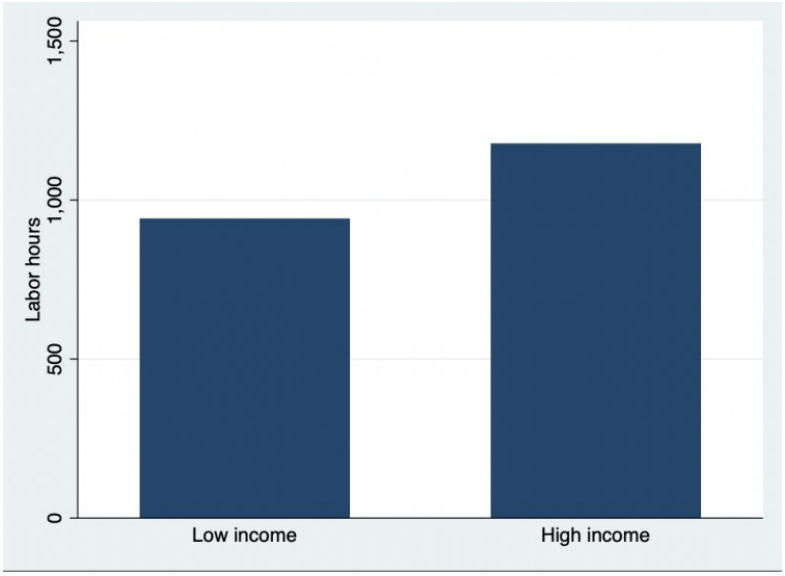

Figure 6: Labor Hours Trend by Income in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

4.5. Labor supply by Marital Status

Figure 7 and Figure 8 illustrate the labor participation and the labor hours of middle-aged and elderly population at different marital status. Generally, married people are in high labor participation and high labor hours. In contrast, people who are not married tend to provide lower labor participation and labor hours compared to married people. In Figure 7, the labor participation rate of married people exceeds 60%, while around 50% of people who are not married participate in labor activities. In Figure 8, married people can provide more than 1,000 labor hours, while people who are not married provide around 700 labor hours.

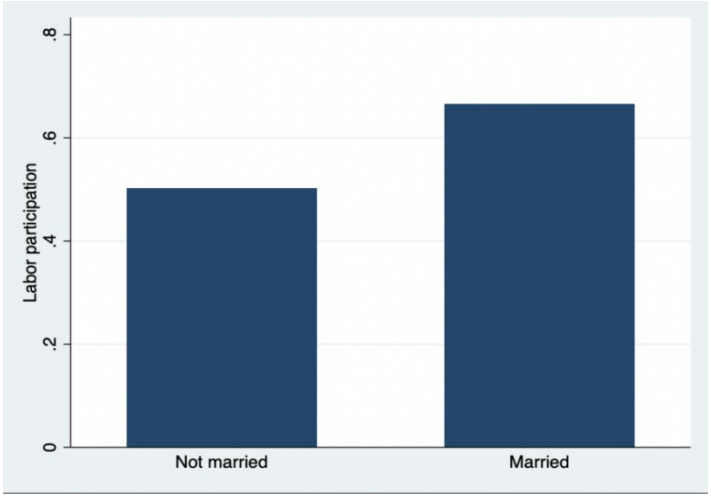

Figure 7: Labor Participation Trend by Marital Status in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

DOI: 10.54254/2754-1169/106/20241569

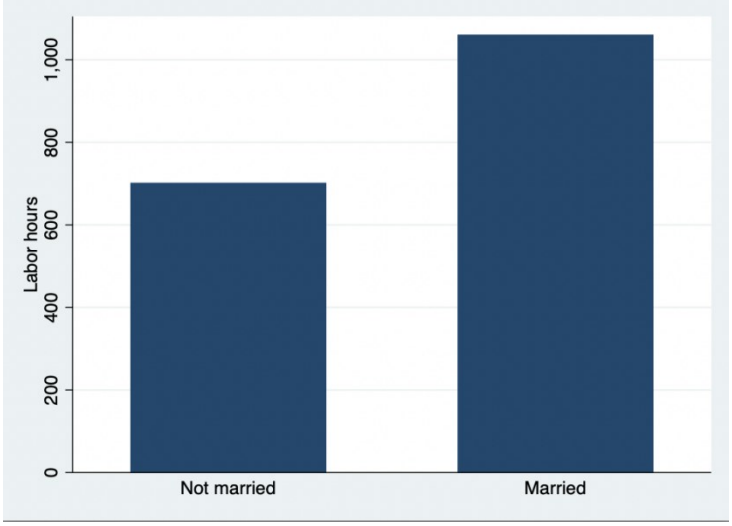

Figure 8: Labor Hours Trend by Marital Status in period 2013-2015
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 wave and 2015 wave

5. Empirical Analysis

5.1. Public Health Insurance and Labor Supply

The models below will be used for analyze influence of New Rural Cooperative Medical insurance (NRCMI) on labor participation and labor hours.

$$LP_{it} = \alpha + \beta \text{NRCMI}_{it} + \gamma X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (1)$$

$$LH_{it} = \alpha + \beta \text{NRCMI}_{it} + \gamma X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

Where, LP and LH represent labor participation and labor hours respectively. NRCMI represents whether individual i participate in New Rural Cooperative Medical insurance. X_i represents some covariates that control personal characteristics. μ_i is individual fiexed effect. λ_t is year fixed effect. ε_i is error term.

5.2. Results

Table 2 shows influence of NRCMI on labor supply of people. Column 2 and 3 represent that influence of NRCMI on labor participation without controls and with controls, respectively. Column 4 and 5 represent the effect of NRCMI on labor hours without controls and with controls, respectively. It is obvious that the effect of NRCMI on LP is 0.0785, which is significant, but the R-squared ratio is really small if we do not control covariates. This means this estimate is biased. When we control covariates, the effect of NRCMI is 0.116, which is still significant and much bigger than that of without controls. Moreover, the R-squared ratio is 0.142, which is larger than the estimate without controls. From the result, we can know that NRCMI can improve labor participation by 11.6 percentage points. As for labor hours, it is very clear that the effect of NRCMI on LH is 93.134, which is significant, but the R-squared ratio is really small if we do not control covariates. This means this estimate is biased. When we control covariates, the effect of NRCMI is 239.343, which is still significant and much bigger than that of without controls. Furthermore, the R-squared ratio is 0.159 that is larger than the estimate without controls. From the result, we can know that NRCMI can increase labor hours by 239.343 hours.

DOI: 10.54254/2754-1169/106/20241569

Table 2: The Effect of NRCMI on Labor Supply of Middle-age and Elderly people in Rural Area

	LP (Without controls)	LP (With controls)	LH (Without controls)	LH((With controls)
NRCMI	0.0785***	0.116*	93.134	239.343**
	(0.028)	(0.062)	(76.368)	(111.590)
Self-rated Health		-0.053		38.118
		(0.047)		(84.797)
Age		0.043		-211.431
		(0.083)		(150.137)
Age_squared		-0.0004		1.343
		(0.0005)		(1.050)
Middle school		0.110		581.46
		(0.202)		(360.675)
Undergraduates		-o.133		20.288
		(0.054)		(97.766)
Marital Status		0.0631		993.848
		(0.191)		(341.517)
Individual income		6.45e-06		-0.0216
		(8.24e-06)		(0.0146)
gender		-0.099		-151.114
		(0.517)		(922.267)
Pension		0.757		1844.7
		(0.306)		(547.014)
Children support		-0.00001		-0.0239
		(9.86e-06)		(0.0175)
Number of children		-0.0345		-95.455
		(0.0394)		(70.427)
Caring		0.0834		-11.00296
		(0.0620)		(110.601)
Smoke		0.0994		-12.017
		(0.144)		(258.266)
Drink		0.0318		-26.961
		(0.0789)		(140.761)
Do physical activities		-0.188		-273.896
		(0.0662)		(118.163)
Constant	0.640***	-0.316	1008.715***	1.599
	(0.0288)	(2.964)	(70.917)	(1.699)
Observations	9,600	3,778	9,548	3,755
R-squared	0.0283	0.1423	0.03	0.1596

Notes: *** p<0.01, ** p<0.05, * p<0.1. The standard errors are clustered at the individual level.
Sources: China Health and Retirement Longitudinal Study (CHARLS) in 2013 and 2015 waves.

6. Conclusion

The paper estimates effects of New Rural Cooperative Medical insurance (NRCMI) on labor supply of people who are middle-aged and seniors in rural areas of China. I quote the data from CHARLS in 2013 wave and 2015 wave, which includes labor participation and labor hours of people who are middle-aged and seniors in China. And I group and analyze these individuals based on their age, income, marital status, level of health, gender, etc. The research method is mainly based on Ordinarily

DOI: 10.54254/2754-1169/106/20241569

Least Square. The study finds that the NRCMI can enhance labor supply by increasing labor participation and labor hours. Specifically, labor participation increases by 11.6 percent points as a result of implementing NRCMI, and the labor hours also increase by 239.343 hours. Therefore, NRCMI does have a positive impact on the labor participation and the labor hours of people who are middle-aged and seniors in China.

In summary, all parties have strongly supported the implementation of NRCMI, which has had a significant positive impact on local labor recruitment. Therefore, the government must not only fully understand the benefits of rural cooperatives, but also strengthen the benefits of rural cooperatives. Implementation of rural cooperatives.

To further improve people's well-being and optimize labor market outcomes, the government should expand NRCMI coverage to ensure full coverage in rural areas. In addition, the government should strengthen the construction of medical infrastructure and invest in and upgrade medical infrastructure in rural areas, including establishing medical infrastructure in rural areas. This will not only accommodate increased demand due to expanded NRCMI coverage but will also benefit the overall health and productivity of the workforce. Besides, the government should establish an evaluation framework to continuously enhance NRCMI implementation. By these actions, the government can not only ensure the continued success of NRCMI but also create an environment that promotes well-being and active labor supply of middle-aged and elderly people in China.

Acknowledgments

Peking University's National School of Development is providing funding for this study. I appreciate Peking University's insightful remarks and suggestions. Requests for data and code can be made, and any errors that are still present are mine. Peking University's National School of Development provides funding for CHARLS.

References

[1] *"Age distribution in China." Statista. https://www.statista.com/statistics/270163/age-distribution-in-china/.*
[2] *"Mean age of the Chinese population." Statista. https://www.statista.com/statistics/232265/mean-age-of-the-chinese-population/.*
[3] *Negative population growth and population ageing in China. China popul. dev. stud. 7, 95–103 (2023). https://doi.org/10.1007/s42379-023-00138-z.*
[4] *"Analysis of the Impact of China's Population Aging on Labor Supply." JournalNX, 2021, pp. 1-3.*
[5] *An overview of the Chinese healthcare system. Hepatobiliary Surg Nutr. 2021 Jan;10(1):93-95. doi: 10.21037/hbsn-2021-3. PMID: 33575292; PMCID: PMC7867737.*
[6] *Medical insurance and healthcare utilization among the middle-aged and elderly in China: evidence from the China health and retirement longitudinal study 2011, 2013 and 2015. BMC Health Serv Res 20, 654 (2020). https://doi.org/10.1186/s12913-020-05522-w.*
[7] *The relationship between health and labor force participation: Evidence from a panel data simultaneous equation model. Labour Economics, 17(1), 77-90. https://doi.org/10.1016/j.labeco.2009.04.001.*
[8] *The Impact of Health on Labor Supply near Retirement]. Journal of Human Resources, 58(1), 282-334. https://doi.org/10.3368/jhr.58.3.1217-9240R4.*
[9] *Health Insurance and Labor Supply. In Oxford Research Encyclopedia of Economics and Finance (Oxford Research Encyclopedias). Oxford University Press. https://doi.org/10.1093/acrefore/9780190625979.013.438.*
[10] *The Labor-Market Effects of Introducing National Health Insurance: Evidence from Canada. Journal of Business & Economic Statistics, 13(2), 163–173. https://doi.org/10.2307/1392370.*
[11] *Health Insurance and the Labor Supply Decisions of Older Workers: Evidence from a U.S. Department of Veterans Affairs Expansion. Journal of public economics, 94(7-8), 467–478. https://doi.org/10.1016/j.jpubeco.2010.02.008.*
[12] *Influences of Public Medical Insurance System on Labor Health Status and Supply. Iranian journal of public health, 50(8), 1658–1667. https://doi.org/10.18502/ijph.v50i8.6812.*
[13] *The Effect of Health on the Elderly's Labor Supply in Rural China: Simultaneous Equation Models With Binary, Ordered, and Censored Variables. Frontiers in Public Health, 10. https://doi.org/10.3389/fpubh.2022.890374.*

DOI: 10.54254/2754-1169/106/20241569

[14] *The Effect of China's Health Insurance on the Labor Supply of Middle-aged and Elderly Farmers. International journal of environmental research and public health, 17(18), 6689. https://doi.org/10.3390/ijerph17186689.*

[15] *Innovating New Rural Cooperative Medical Scheme (NCMS) for Better Patient Satisfaction in Rural China. International journal of environmental research and public health, 15(9), 2007. https://doi.org/10.3390/ijerph15092007*

[16] *[New Rural Cooperative Medical Scheme, Human Capital in Health, and Their Impact on Labor Supply of Middle-aged and Elderly People in Rural China]. [Hunan Normal University]. (Category Number: F249.21(Labor Economy) F842.6(Insurance)). https://d.wanfangdata.com.cn/thesis/D02616809*