



Does New Rural Pension Scheme decrease elderly labor supply? Evidence from CHARLS



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ABSTRACT

This paper examines the effect of the New Rural Pension Scheme (NRPS) on the labor supply behavior of the elderly in rural China. Using pooled data from two waves of the China Health and Retirement Longitudinal Survey (CHARLS) and an analytical framework of combination of regression discontinuity design and difference in difference method (RD-DiD), we find no evidence that pension receipt from the NRPS program does significantly induce the elderly to withdraw from the labor market. The heterogeneous effects by health status indicate that pension recipient slightly decreases the probability of labor force participation for those individuals with chronic diseases; however, the effect is not statistically significant. The empirical findings suggest that the introduction of the NRPS program does not improve the welfare effect of the originally targeted elder individuals with illness.

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1. Introduction

China, as a developing country, has been undergoing an unprecedented demographic transition and rapid population aging in pace with the decline in fertility rates and rising life expectancy. According to the Sixth National Population Census of China, the percentage of population aged 60+ increased from 10.33% in 2000 to 13.26% in 2010 (National Bureau of Statistics, 2011), the trend is projected to rise to 32.8% in 2050 (United Nations, 2010).¹ Although the average income of Chinese households has risen dramatically since market-oriented economic reform and opening in 1978, the rural elderly have not benefited from such economic growth to the same extent as younger people and the urban cohort (Cai, Giles, O'Keefe, & Wang, 2012). It is extensively acknowledged that, traditional systems of family support have been collapsed due to decline of birth rate, shrinking of family size and massive labor rural–urban migration, and that furthermore, lack of established social security systems put the rural elderly at the risks of vulnerable economic conditions and poverty. How to establish social security policies aimed at improving the welfare of the elderly in rural China and preventing them from falling into poverty has been the central topic for policy makers.

Traditionally, in the absence of pensions support and savings, the elderly in rural China have to work throughout old age until they are no longer physically capable, which is described as a metaphor of “ceaseless toil” (Benjamin, Brandt, & Fan, 2003; Pang, de Brauw, & Rozelle, 2004). It is clear that the elderly well-being (e.g., health), in particular of those engaged in physically strenuous

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¹ By international standards, aging society is defined as its population with aged 60 and 65 or over exceed 10% and 7% respectively.

jobs, would be sacrificed at the cost of mitigation of their adult children's economic supporting burden through the elderly own labor income. One major reason for the decline of well-being for the elderly is that they are obliged to work even in poor health. A recent study conducted by Li, Lei, and Zhao (2014) uses four waves of CHNS data and hypertension as the measure variable of health to investigate the impact of health on labor supply of Chinese elderly, where the results indicate that hypertension has significantly negative effects on urban elderly but no effect on rural elderly. One explanation is that considerable urban–rural differences exist in the level of coverage by safety nets and the benefits received through the social welfare system. Urban elderly better covered by social security systems have incentives to retire early, while for those exposed to the risks of economic vulnerability and poverty in rural China, a severe shortage of institutionalized risk sharing mechanisms like public social security programs leave them little or no choice other than to continue their work intensity even with illnesses.

As one of the traditional scarce resources, time, like income, plays a non-negligible role in a person's wellbeing. A growing number of economists recognize that any inquiry in to the nature of well-being thus involves not only asking what income people do (or do not) possess but also how they conduct their lives and whether they have time-autonomy. The lengths of working hours, as well as the intensity of time use, convey information about quality of life (Floro, 1995). Further, Robeyns (2003) argues that long work time and heavy workload not only result in decrease of time to restore physical strength, and to improve physical health, mental wellbeing and the quality of life combined with leisure activities, but also lead to the loss of chance to participate in social activities. Several studies provide considerable evidence that poor social connections, infrequent participation in social activities, and social disengagement predict the risk of cognitive decline in elderly individuals (Zunzunegui, Alvarado, Del Ser, & Otero, 2003). Consequently, sufficient leisure time for the elderly to involve themselves in social activities can improve their mental health, life satisfaction and wellbeing.

In response to the rapidly aging population and improve the welfare of old-age people, the Chinese government launched an innovative program, the National Rural Pension Scheme (NRPS) for rural residents in late 2009 (the institutional design will be discussed in detail in Section 3), and expanded the NRPS program to cover full geographic areas in rural China by the end of 2012. In late 2009, the pilot program started in 10% of counties nationwide, approximately 103 million rural residents enrolled in NRPS in 2010, but the figure increased dramatically to 497 million in 2013, including an increase of 28 million to 138 million elderly aged 60+ covered by NRPS.² The NRPS sponsored by the Chinese central government is regarded as a significant milestone for the fact that rural residents in China are forwarded into a new era of social pension systems, a departure from the traditional family support system. In this context, investigating how eligible individuals respond to such public program expansion is crucial to determine whether scarce fiscal resources with competitive objectives are efficiently allocated to the special demographic group originally targeted.

Theoretically, the design of a pension system and its reform must explicitly recognize that pension benefits are claims against future economic output. To fulfill this objective, Holzmann and Hinz (2005) indicate that pension program reforms should be designed and implemented to support growth and development and diminish possible distortions in labor markets. It is important to note, however, that the primary goal of a public pension scheme is to provide reasonable protection against the risks of economic and time poverty by efficiently allocating resources to the elderly (Holzmann & Hinz, 2005). As far as NRPS is concerned, despite any disincentive and behavior distortion of working-age adults in labor market under coverage of NRPS may not be the most policy makers would like to see, reduction of economic activities and even withdrawal from labor markets for those elderly with poor health and heavy work burden in rural China is the objective of social pension program to provide the elderly with adequate security.

To date, considerable attention has been paid to crowding out effect of NRPS on intergenerational economic transfer from adult children to the elder parents (Chen & Zeng, 2013; Cheng, Zhang, & Liu, 2013; Zhang & Chen, 2014), very little is known about the relationship between the elderly labor supply behavior and public pension scheme in rural China. To fill this knowledge gap, the primary objective of this paper is to explore the welfare effect of NRPS on the originally targeted elder individual's labor supply behavior by using the particularly detailed data on China's elderly population from the China Health and Retirement Longitudinal Survey (CHARLS). In particular, the paper tries to answer the following question: whether, and to what extent, does the enforcement of NRPS in China lead to change of labor market behavior of the elderly? Does NRPS reduce labor supply of the elderly with poor health compared to those in good health conditions? The empirical findings would have far-reaching implications for the efficacy of public transfer or redistributive programs such as NRPS, in the case of retirement for rural elderly, such programs may have positive welfare effects on the intended beneficiaries. Furthermore, an understanding of the inter-linkage between informal arrangements of elderly support and social redistributive program provides further insight into the design of social security systems targeted to the vulnerable group in developing countries.

This study contributes to the existing literature by evaluating the welfare effect of public pension program from alternative perspectives that have not been well explored in developing countries. Also, understanding the behavior response of the labor supply due to pension expansion in rural China is of particularly great importance for some less developed countries in Southeast Asia experiencing rapid demographic aging, as they have already taken actions to establish state-sponsored pension programs for the elderly.

The remainder of this paper proceeds as follows. Section 2 provides an overview of the literature. Section 3 describes an institutional background of NRPS in China. Section 4 illustrates the theoretical framework. Section 5 introduces the data set and the empirical model and estimation strategies are shown in Section 6. The empirical results are presented in Section 7 and conclusions are exhibited in Section 8.

² Data were obtained from Ministry of Human Resources and Social Security of China. <http://www.mohrss.gov.cn/SYRlzyhshbzb/zw/gk/szrs/>.

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