

The Impact of Chinese Public Pension on Family Pension

Yi Zhang^{1*} Yue Yang²

¹ China Securities Co., Ltd

² Central University of Finance and Economics

*Corresponding author. Email: yizhangg@hotmail.com

ABSTRACT

Based on the China Health and Retirement Longitudinal Study (CHARLS) survey data of 2015, this paper analyzes the impact of public pension on family support from the perspective of the urban-rural difference by applying fuzzy regression discontinuity design. Wherein, family support is divided into three dimensions including financial support, emotional support and daily care support. Compared with previous literature, the paper solves the problems of missing data and threats to internal validity better, which widely exist in the evaluation of public policy. The empirical results show that public pension weakens family support, and heterogeneity exists between countryside and city. The arrival of pension benefits decreases the amount of financial support by around 62.82 to 93.27% for the rural elders while it reduces the frequency of meeting children by 24 times. Besides, the decrease of financial support for the rural elderly residents living alone is nearly 10% higher than the elderly persons living with children. The elderly persons alone are more likely to receive less emotional support from their children. And the elders living with children are more likely to receive less daily care support. As for the urban elders, the public pension has no influence on their family support. Emotional support and daily care support can only work in the family, so family support is irreplaceable in both rural and urban areas. While a public pension is developed greatly, a concordant and complementary relationship between the two eldercare patterns should be built as soon as possible. Only in this way, can we truly deal with the heavy pressure of the old-age dependency rate (ODR).

Keywords: Public pension; Family support; Crowding out; Fuzzy regression discontinuity.

1. INTRODUCTION

China, a developing country with the largest population in the world, it has a rapidly aging population before its pension insurance yet achieving universal coverage. According to the latest data released by China's National Bureau of Statistics, the Chinese population aged 65 and above reached 166.58 million in 2018, accounting for 11.94 percent of the total population, far higher than the international standard for an aging population. It is generally believed that a country or region faces population aging problems when the population aged 65 and above accounts for 7% of the total population. United Nations Population Division (2019) predicted that China will enter an overall deeply aging society by 2050.

In the face of rapid population aging, ensuring the survival of the elderly has always been a common concern of academia and policymakers. According to

the follow-up data of China Longitudinal Aging Social Survey (CLASS) in 2014, family support remains the ideal mode for more than 90% of elderly persons. However, as families become increasingly nuclear, the filial piety declines and the industry develops (Cheung and Kwan, 2009) [1], the old-age care dilemma in China is difficult to resolve solely relying on traditional family support, and the public pension system is increasingly highlighted as important complementation and substitute. The public pension system supported by government funds is an enduring mode that can significantly relieve the pressure of family support for the elderly. From the launch of the first pension system for workers in 1991 to the New Pension System for Rural Residents in 2009, China's public pension system has been constantly improved with expanding coverage in people and programs. According to Statistical Communiqué of the People's Republic of China on the 2018 National Economic and Social Development, the insured persons of the Urban Employees Basic Old-Age

Insurance has reached 418.48 million and the insured persons of the Basic Pension reached 523.92 million by the end of 2018. The orderly progression of the public pension system has provided basic living security for the elderly. So this paper mainly focuses on three issues: whether the public pension system has fulfilled its expected goal, whether it can effectively relieve the pressure of supporting children by replacing step by step the traditional family support, and whether the public pension system can really improve the elderly's life quality.

Based on the characteristics of China's pension system design, regression discontinuity designs (RDD), a method widely used in policy evaluation in recent years, is applied in this paper to estimate the influence of the public pension system with the social security system as its pillar on family support by using the latest micro-survey data.

2. LITERATURE REVIEW

Aggravating pension burdens laid by the globally aging population aroused a proactive discussion amongst the international academia on the relationship between the public pension and family support. Reaching no agreement yet, academia interpreted the role of public pension from two opposite perspectives.

Scholars represented by Becker (1974) [2] and Barro (1974) [3] believed that the consumer's intergenerational transfer was altruistic and the children supported their parents to ensure that the parents can enjoy a good life. The increased parents' pension income would inevitably lead to fewer children's private transfer payments to their parents. Public expenditure and private transfer payment are mutually substituting, and the development of the public pension system is bound to weaken the importance of family support, resulting in the "crowding out effect". Fan's (2010) [4] study on Taiwan's pension plan showed that public pension has a significant crowding-out effect on the family's intergenerational financial support, reducing the predominance of traditional family support. Chen Huashuai and Zeng Yi (2013) [5] used PSM-DID (Propensity score matching and difference-in-differences regression approach) to analyze the panel data of the Chinese Longitudinal Healthy Longevity Survey (CLHLS) 2008 and 2011. It was concluded that every 1 CNY increase in the pension income of the rural elderly resident could cause the intergenerational financial support provided by their children to reduce by 0.808 CNY. Zhang and Chen (2014) [6] found that the probability of private intergenerational transfer payment for rural elderly with new rural insurance pension income decreased by 32 to 56 percentage points based on CHARLS data in 2014.

From the perspective of trading motives, however, the conclusion is quite opposite. The transfers given by children to the elderly are transactional in nature, such as the purchase of household services provided by the elderly persons, so the transfers from the children to the elderly persons are irrelevant to whether the elderly persons claim pension or not (Cox, 1987) [7]. However, the pension will increase the elderly persons' income, so that they can use part of their income to compensate their children for services such as living care (Kohli et al., 2005) [8]. Under the background of the general weakening of family pension, the new rural insurance promoted the realization of the spiritual comfort and life care function of family pension. This means that the public pension system, with no negative impact on family support, even has a crowding effect that improves the overall family well-being.

Some scholars believe that the effect of the public pension system on the family support is dependent on a variety of influential factors that cannot be generalized. Cheng et al. (2013) [9] believe that the intergenerational transfer from the children to the elderly persons is affected by the physical condition and income of the elderly persons, but the New Pension System for Rural Residents has an indirect influence on the children's care for the elderly by increasing the likelihood of the elderly living away from their children, and ultimately affect the rural elderly residents' old-age care mode. Zhang and Wang (2015) [10] used the Probit model to analyze three sets of annual data of CHARLS project from 2011 to 2013 and found that the proportion of rural elderly residents living with their children increased by 9.9 to 12.1 percentage points after claiming the pension. But at the same time, the probability of urban elderly residents with a strong intention to co-reside with their children are decreased by about 6 percentage points.

The above literature studied the effect of the public pension system on family support from various aspects and resulted in theoretical achievements and empirical experience. However, in general, there are still two major deficiencies in the existing researches on the relationship between the public pension system and family support in China: First, the existing studies mainly discuss the effect of the public pension system on family support from the perspective of financial support. However, with increasingly socialized intergenerational relations, families are about not only the exchange of economic resources, but also emotional feelings centered on kinship and altruism (Wu Fan and Li Jianmin, 2010) [11]. The existing relevant studies remain in a rather small number, and most of these studies analyze the crowding-out effect of the public pension system on family support from a single dimension (such as residence arrangement), which hardly reflect the whole picture of how family support changes. The existing studies pay inadequate attention to the urban families' old-age care while focusing on the

rapidly developing and extensive coverage of the New Pension System for Rural Residents. Compared with rural families, urban families are more characteristic of nuclear families and enjoy a more developed economy, higher education, and better social security system. The differences lead to heterogeneity in the choice of pension mode for urban and rural elderly persons. Therefore, it is of great significance to study the impact of the public pension system on family support from the perspective of rural-urban differences. Probit model and Logit model, though used by most of the existing papers concerning rural-urban differences, cannot effectively resolve the threats to the internal validity. The RDD used in this paper is a quasi-experiment with strong internal validity.

To sum up, based on the data of China Health and Old-age Care Tracking Survey (CHARLS) in 2015, combined with existing studies, family old-age care is defined as children providing economic support, emotional support and life care for their parents (Mu Guangzong, 2000; Liu Yiwei, 2016; Yu Changyong et al. 2017) [12-14] studied the impact of the public pension system on a family pension from three

dimensions from the perspective of urban-rural differences, enriching the content and perspective of research on the public pension system.

3. EMPIRICAL METHOD

3.1. Data sources and variable definitions

The China Health and Retirement Longitudinal Study (CHARLS) is an extensive interdisciplinary survey project conducted by the National School of Development, Peking University, and executed by the China Social Science Survey Center. It aims to collect a high-quality nationally representative sample of Chinese residents ages 45 and older to serve the needs of scientific research on elderly persons. This paper uses the national follow-up data of China in 2015, and the sample covers 150 counties and 450 communities (villages) in 28 provinces (autonomous regions and municipalities directly under the Central Government), involving 23,000 respondents from 12,400 households. On the basis of the questionnaire design and the purpose of this study, 4,987 samples were selected, including 3,790 rural samples and 1,197 urban samples.

Table 1. Variable definitions

Variable		Definition
Predicted variable	Financial support	Cash and gifts in kind converted into cash received by the respondent and their spouses from their children in the past year (unit: CNY)
	Emotional support	The annual frequency of the visits paid by the children who do not co-reside with the elderly to the elderly on average: 365 times a year - almost every day; 130- 2 to 3 times a week; 52- Once a week; 24- Once every two weeks; 12- Once a month; 4- Once every three months; 2- once every six months; 1- Once a year; 0- Almost never.
	Distance from children's residence	Respondent co-resides with their children or not: 0- Yes; 1 - No Average distance between respondent's residence and their children's permanent residence in the same county (city) (unit: km)
Treatment variable	Claiming pension or not	0- Not claiming pension insurance; 1- Claiming pension insurance
Input variable	Age	Physical age of respondent in 2015 (unit: Years old)
Controlled variable	Household registration type	0- Rural resident; 1- Urban resident;
	Gender	0 - Female 1 - Male
	Education	0 - Illiterate; 1- Below primary school; 2 - Primary school; 3 - Junior high school; 4- Senior high school or technical secondary school; 5 - College degree; 6- Bachelor degree or above
	Health	Respondent's self-rated health: 1- Very poor; 2 - Poor; 3 - Moderate; 4 - Good; 5 - Very good
	Marital status	0- No spouse; 1 - Having a spouse
	Number of children	The number of living children

Table 2. Comparison of rural and urban elderly

Variable (See Table 1 for specific definitions of classification variables)	Average		
	Rural Resident	Urban Resident	Full samples
Gender	0.472	0.508	0.480
Age	59.260	59.650	59.354
Education	1.701	3.008	2.015
Health	2.526	2.793	2.657
Marital status	0.918	0.913	0.917
Number of children	2.468	1.848	2.319
Working conditions	0.162	0.311	0.198
Annual household expenditure	30496.123	52654.334	35831.925
Pension status	0.342	0.460	0.371
Financial support	5455.495	7289.781	5895.768
Emotional support	61.594	96.729	69.171
Co-residing with the children or not	0.407	0.407	0.407
Average distance from their children's permanent residence in the same county (city)	17.439	18.411	17.632

The predicted variables in this paper can be classified into three categories. The first category reflects the intergenerational transfer of households, measured by the total amount of financial support (cash or gifts in kind converted to cash) the respondents and their spouses received from all their children in the past year. The second category reflects the children's emotional support given to the elderly, measured by the average frequency of children's visits to the elderly. The frequencies are qualified with assigned values. The third category of indicators reflects the life care the elderly receive. Since life care is difficult to quantify, this paper selects two variables for measurement. The two variables include whether the elderly co-reside with their children and the distance between the elderly's residence and their children's permanent residence in the same county (city). In addition, following the research tradition of existing literature, this paper selected individual characteristics of interviewees, such as household registration, gender, age, educational level, health status, marital status and number of children, as controlled variables to enhance the validity of RDD. Family income was added as one of the controlled variables in some papers. Considering that it would lead to endogeneity after being influenced by pension income and intergenerational transfers, it was not included in the regression equation in this paper.

The definition of each variable is shown in Table 1, and the samples' descriptive statistics are shown in Table 2.

Table 2 indicates that the urban elderly residents enjoy higher overall education, better health status and higher employment ratio than the rural counterparts. It should be pointed out that agricultural self-employees are defined as Unemployed in this paper. The proportion of urban elderly residents claiming pensions is much higher than the rural elderly residents. Over the past year, urban elderly residents get financial support from their children about 1.3 times as much as that of rural elderly residents. The urban children pay visits to their parents 1.6 times that of rural children. There is hardly a rural-urban difference in regards to whether the elderly persons living with their children. The average distance between the urban elderly and their children's permanent residence in the same county (city) is slightly farther than that of the rural elderly. In general, the urban elderly residents enjoy a higher level of family support and public pension.

3.2. Empirical method

Regression discontinuity design (RDD) has been widely used to evaluate public policy in recent years. Public policy evaluators often face the following two difficulties: first, they can only observe the same individual in only one state. Either to engage in public projects or not. It is impossible to observe data in two states at the same time. "Missing data" makes it difficult to accurately evaluate the effect of policies (Chen, 2010) [15]; the engagement in the public policy is affected by many factors. In addition to age, gender, education and

other observable variables, individuals' subjective expectations and other non-observable variables also affect the engagement in the policy. For example, the life expectancy of respondents may affect whether they will pay the pension insurance (Ning, 2015) [16]. These non-observable variables caused errors because of omitted variables. However, RDD can properly solve these problems. The fundamental idea is that when an observable input variable of an individual reaches a specified threshold, which means, it is treated by the policy, as long as the individual cannot completely manipulate the variable, it can be considered that the individuals near the policy cutoff point have no systematic difference in all aspects (including observable and non-observable variables) and can be regarded as a random experiment. Which means, the different policy treatment is not the only cause of different outcome variables.

According to the latest guidelines on pension system for urban and rural residents and New Pension System for Rural Residents issued by The State Council, the monthly pension can only be claimed by the insured person aged at least 60 years old. According to the State Council Provisional Regulations on Retirement and Resignation of Workers, the current retirement age of urban employees' pension insurance is 55 years old for female cadres and 50 years old for female workers. Therefore, the ages of the female samples receiving urban employees' pension insurance are adjusted in the regression analysis. Based on the features of this system, the sampled data were roughly processed before building the empirical model, and the relationship between age and whether to claim pension is demonstrated in Figure 1. Figure 1 indicates that the proportion of old people receiving pensions has an obvious increase around the age of 60, that is, being aged over 60 does significantly increases the probability of elderly persons receiving pensions.

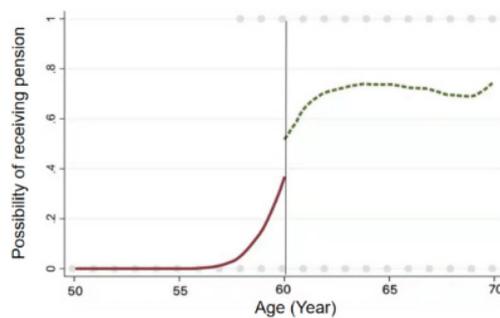


Figure 1 Proportion of Chinese people of different ages receiving pensions. Note: The vertical line in the figure indicates Age =60.1, which is the age cutoff point used in this paper for actual estimation. It works the same as below. The line of best fit indicates the approximation of age with or without pension.

The model is validated to conform to the application scope of the RDD. Due to limited space, it is not elaborated on in this paper.

4. EMPIRICAL RESULTS AND ANALYSIS

4.1. Basic regression analysis

Table 3 to Table 5 indicate the estimated results of the influence of the public pension system on family support from various dimensions when the cutoff is 60.1. Considering that the pension payment is seasonal, the cutoff point is not exactly 60. In this paper, 60.05 and 60.15 were also selected as cutoffs and the conclusions were basically the same, but in general, 60.10 was used as the cutoff point for the best approximation.

As is indicated in Table 3, pension income on average reduces the amount of financial support provided to the rural elderly residents by 62.82% to 93.27%, but has no significant impact on that of the urban elderly residents. As is indicated in Table 4, pension income reduces the average number of annual visits to the rural elderly paid by their children by about 24 times, but has no significant impact on the urban elderly. As is indicated in Table 5, pension income has no significant impact on the informal care of children enjoyed by the elderly in neither rural nor urban areas. In conclusion, there are significant differences in the influence of the public pension system on family support in rural and urban areas. Claiming the pension significantly reduces the financial support and emotional support provided to the rural elderly residents, but the has no significant influence on the quality of family support enjoyed by the urban elderly residents.

This urban-rural difference can be explained from several perspectives as follows. First, there are urban-rural differences in the children's financial expectations of elderly persons. In the samples covered in this paper, only 23.58% of rural elderly residents under 60 years old have stable income. While the proportion of rural elderly residents aged 60 and above who have stable income after claiming pensions is as high as 73.44%. In contrast, the proportion of the elderly under 60 years with a stable income is 68.93% and that of the elderly aged 60 and above with stable income is 67.96%. The pension income significantly improves the rural elderly residents' income and their living stability, but not for the urban elderly counterparts. Therefore, the urban elderly residents' children's economic expectations for them remain the same before and after retirement, and the pension treatment effect at the policy cutoff is subtle.

Table 3. Influence of the public pension system on the financial support of family support

	Age range					
	Rural Resident			Urban Resident		
	+/-3.51	+/-1.76	+/-7.02	+/-3.65	+/-1.83	+/-7.31
Influence of age ≥60.1 on whether to claim pension	0.353*** (0.054)	0.368*** (0.044)	0.488*** (0.036)	0.672*** (0.033)	0.681*** (0.045)	0.715*** (0.023)
Influence of age ≥60.1 on claiming financial support	-0.414** (0.169)	-0.158 (0.140)	-0.203* (0.117)	-0.296 (0.328)	-0.712 (0.494)	-0.194 (0.252)
Influence of pension income on financial support	-1.172** (0.515)	-0.430 (0.384)	-0.415* (0.242)	-0.441 (0.489)	-1.046 (0.733)	-0.271 (0.353)

Note: *, ** and *** respectively represent that the estimated coefficients are significant at the level of 0.1, 0.05 and 0.01. The numbers in brackets are standard error. The column 1 and the column 4 are based on the optimal bandwidth calculated by Imbens and Kalyanaraman (2012) [17]. The column 2, 5 and column 3, 6 are the regression results of 0.5 and 2 times of the optimal bandwidth respectively. It is the same for Table 4 to 6 as Table 3.

Table 4. Influence of public pension system on the emotional support of family support

	Age range					
	Rural resident			Urban resident		
	+/-10.43	+/-5.21	+/-20.85	+/-8.45	+/-4.22	+/-16.89
Influence of age ≥60.1 on whether to claim pension	0.576*** (0.030)	0.443*** (0.045)	0.602*** (0.027)	0.675*** (0.044)	0.663*** (0.035)	0.701*** (0.038)
Influence of age ≥60.1 on claiming financial support	-13.918* (7.121)	-5.919 (10.137)	-14.617** (6.575)	-11.897 (20.622)	-7.460 (27.709)	-8.846 (17.440)
Influence of pension income on financial support	-24.154* (12.478)	-13.364 (22.966)	-24.261** (11.012)	-17.624 (30.557)	-11.249 (41.779)	-12.616 (24.878)

There are rural-urban differences in the conception of family support. The core purpose of old-age care in China's rural areas is "to raise a child is for the old-age needs" (Yang Zhengyi, 2016) [18]. Therefore, family support may no longer be the most ideal mode in the urban elderly person's mind when their income increases to a level where their material well-being is guaranteed and they are able to purchase commercial care services in the market, family support may no longer be the most ideal mode in their minds (Tian Beihai et al., 2012) [19]. That is not characteristic of the urban elderly residents. According to a survey conducted by China Research Center on Aging, about 30% of the young children in the city live off their parents, which is as common as 65% in Chinese urban families. The urban children living off their parents are caused by that the intergenerational transfers being transactional in nature. The financial support from the children to the elderly persons is only related to each other's needs and irrelevant to whether the elderly persons claim pension or not (Cox, 1987; Kunemund and Rein, 1999; Kohli, 2005) [8, 20, 21].

Finally, rural and urban families face different old-age care conditions. Considering most of the urban

children and parents live in the same city, the children can give care to the parents in a time when the elderly parents feel physically or emotionally lonely. By contrast, the young and middle-aged labor force from rural areas continues to flow out. In this case, even if the elderly persons compensate their children with the pension, it remains difficult for the children to timely meet the emotional needs of the elderly such as emotional support. When children are aware of the hard constraints of inadequate old-age care conditions, the self-reinforcing effect of the public pension system (COX et al., 2004) [7] is likely to further strengthen the children's cognition, need and sense of dependence on the public pension system.

The reasons above all lead to the different influence of pension rural and urban families in regards to financial support and emotional support.

4.2. Heterogeneity analysis

The family's residence arrangements depend on the elderly person's health, abilities of daily life (ADL), marital status, and other factors (Yang et al., 2012) [22], and there is no significant correlation with whether the

elderly claim pensions or not. Considering that different living arrangements often mean different intergenerational financial support, emotional support and life care (Jiang et al., 2014) [23], however, heterogeneity analysis was conducted for the elderly person co-residing with their children and those living alone. The regression results by a group for the rural elderly residents are shown in Table 6, and those for the

urban elderly residents are basically consistent with the basic regression results. Due to limited space, it is not elaborated on in this paper.

The continuity of the input variable (age) density function and the controlled variable in this paper have been validated and the identification strategy is valid as a result.

Table 5. Influence of the public pension system on the life care of family support

1. Whether to co-reside with their children						
	Age range					
	Rural resident			Urban resident		
	+/-10.43	+/-5.21	+/-20.85	+/-8.45	+/-4.22	+/-16.89
The effect of age ≥60.1 on whether to claim pension	0.576*** (0.030)	0.443*** (0.045)	0.602*** (0.027)	0.675*** (0.044)	0.663*** (0.035)	0.701*** (0.038)
Influence of age ≥60.1 on whether to co-reside with children	-13.918* (7.121)	-5.919 (10.137)	-14.617** (6.575)	-11.897 (20.622)	-7.460 (27.709)	-8.846 (17.440)
Influence of pension income on whether to co-reside with children	-24.154* (12.478)	-13.364 (22.966)	-24.261** (11.012)	-17.624 (30.557)	-11.249 (41.779)	-12.616 (24.878)
2. Distance from children's residence						
	Age range					
	Rural resident			Urban resident		
	+/-8.65	+/-4.36	+/-17.30	+/-3.78	+/-1.89	+/-7.60
Influence of age ≥60.1 on whether to claim pension	0.548*** (0.047)	0.403*** (0.070)	0.599*** (0.038)	0.662*** (0.067)	0.758*** (0.087)	0.691*** (0.057)
Influence of age ≥60.1 on distance from children's residence	-0.498 (5.674)	0.755 (8.542)	-0.547 (4.355)	-18.105 (26.426)	-7.819 (18.336)	-24.756 (24.340)
Effect of pension income on distance from children's residence	-0.909 (10.357)	1.874 (21.204)	-0.912 (7.262)	-27.335 (40.132)	-10.315 (24.278)	-35.829 (35.458)

5. CONCLUSION

The traditional family support mode is undergoing challenges as the Chinese population ages at a rapid pace. Based on the China Health and Retirement Longitudinal Study (CHARLS) in 2015, this paper uses two-stage fuzzy RDD to analyze family support into three dimensions: financial support, emotional support and life care, and empirically analyzes the influence of the public pension from the perspective of urban-rural differences. The results show that:

The public pension system, a new elderly care model penetrating in China, has a crowding-out effect with urban-rural differences on family support. For the rural elderly residents, the public pension system has a crowding effect on family support from dimensions of financial support, emotional support and life care. The influence shows significant differences between the elderly co-residing with their children and those living alone. The crowding-out effect of the public pension

system on the financial support of the elderly living alone is nearly 10 percentage points higher than that of those living with their children; the crowding-out effect of the emotional support enjoyed by the rural elderly residents is mainly for the elderly living alone. The increasing effect on the distance between the rural elderly residents and the other children in the same county (city) is mainly for the elderly co-residing with the children. For the urban elderly residents, the public pension system has no significant influence on family support in general.

The increasingly popularized public pension system leveraging governmental support is conducive to relieving the worsening old-age care risk, effectively reducing the children's financial pressure. However, it is worth noting that for the elderly persons, especially the rural elderly residents, the old-age care expectation is not entirely based on "financial motive", but more "emotional motive", which requires vigilance against the elderly persons' emotional loneliness and other

problems brought by the public pension system. The existing public pension system should encourage the population of the appropriate age to engage in the public pension system to expand its coverage, so as to give full play to the public pension system's financial support to family support in order to relieve the burdens on the intergenerational transfers.

Briefly speaking, China should balance the public pension system and family support when developing the system to ensure that the two modes will be mutually complementary, integrated and develop together. The policymakers should consider how to improve the elderly persons' living quality beyond merely ensuring their subsistence.

Table 6. Regression results by group of different residence arrangements for the rural elderly residents

A: Receiving financial support from the children						
	Age range					
	Co-residing with the children			Living alone		
	+/-3.85	+/-1.92	+/-3.70	+/-3.43	+/-1.72	+/-6.80
Influence of age ≥60.1 on whether to claim pension	0.576*** (0.030)	0.443*** (0.045)	0.602*** (0.027)	0.675*** (0.044)	0.663*** (0.035)	0.701*** (0.038)
Influence of age ≥60.1 on claiming financial support	-13.918* (7.121)	-5.919 (10.137)	-14.617** (6.575)	-11.897 (20.622)	-7.460 (27.709)	-8.846 (17.440)
Influence of pension income on financial support	-24.154* (12.478)	-13.364 (22.966)	-24.261** (11.012)	-17.624 (30.557)	-11.249 (41.779)	-12.616 (24.878)
B: Receiving emotional support from your children						
	Age range					
	Co-residing with the children			Living alone		
	+/-7.41	+/-3.70	+/-14.82	+/-8.66	+/-4.32	+/-17.31
Influence of age ≥60.1 on whether to claim pension	0.511*** (0.062)	0.356*** (0.098)	0.614*** (0.047)	0.542*** (0.041)	0.420*** (0.061)	0.589*** (0.033)
Influence of age ≥60.1 on emotional support	1.716 (16.114)	21.312 (24.201)	-7.186 (12.517)	-18.654** (8.916)	-11.557 (12.533)	-18.335** (7.698)
Influence of pension INCOME on emotional support	3.356 (31.485)	59.870 (68.909)	-11.700 (20.464)	-34.433** (16.747)	-27.491 (30.150)	-31.128** (13.241)
C: Receiving living care from children						
	Age					
	Co-residing with the children			Living alone		
	+/-7.41	+/-7.42	+/-7.43	+/-7.44	+/-7.45	+/-7.46
Influence of age ≥60.1 on whether to claim pension	0.427*** (0.087)	0.264** (0.133)	0.552*** (0.066)	0.597*** (0.054)	0.464*** (0.082)	0.622*** (0.045)
Influence of age ≥60.1 on distance from children's residence	7.783* (4.564)	8.914 (6.153)	6.069 (3.718)	-4.267 (7.816)	-2.202 (11.913)	-3.638 (6.245)
Influence of pension INCOME on distance from children's residence	18.213* (10.908)	33.742 (27.247)	10.997 (6.772)	-7.143 (13.053)	-4.749 (25.619)	-5.848 (10.024)

REFERENCES

[1] C.-K. Cheung, A.Y.-H. Kwan. The erosion of filial piety by modernisation in Chinese cities. *Ageing & Society*, 2009,vol 29(2) pp. 179-198

[2] G.S. Becker. A theory of social interactions. *Journal of political economy*, 1974,vol 82(6) pp. 1063-1093

[3] R.J. Barro. Are government bonds net wealth? *Journal of political economy*, 1974,vol 82(6) pp. 1095-1117

- [4] E. Fan. Who benefits from public old age pensions? Evidence from a targeted program. *Economic Development and Cultural Change*, 2010, vol 58(2) pp. 297-322
- [5] H.S. Chen, Y. Zeng. Who Benefits More from the New Rural Society Endowment Insurance Program in China: Elderly or Their Adult Children?. *Economic Research*, 2013, vol 48(08) pp. 55-67+160
- [6] C.C. Zhang, B.K. Chen. Can "Social Pension" Replace "Family Pension"? - Evidence from China's new rural social pension insurance. *Economic Research*, 2014, vol 49(11) pp.102-115
- [7] D. Cox, B.E. Hansen, E. Jimenez. How responsive are private transfers to income? Evidence from a laissez-faire economy. *Journal of Public Economics*, 2004, vol 88(9-10) pp. 2193-2219
- [8] M. Kohli, H. Künemund, C. Vogel. Intergenerational family transfers in Europe—a comparative analysis. 7th European Sociological Association (ESA) Conference. Torun, Poland, Research Network on Ageing, 2005, vol
- [9] L.G. Cheng, Y. Zhang, Z.B. Liu. Has the "New Rural Cooperative Insurance Insurance 'changed the pension model of Chinese rural residents?'. *Economic Research*, 2013, vol 48(08) pp. 42-54
- [10] S. Zhang, J. Wang. Intergenerational Pareto Improvement in Pension Insurance, Filial piety Ethics and Family Welfare. *Economic Research*, 2015, vol 50(10) pp. 147-162
- [11] F. Wu, J.M. Li. Social Intergenerational Relationship under the Background of China's Population Aging and Social Transformation. *Xuehai*, 2010, vol (01) pp. 35-41. DOI: 10.16091/j.cnki.cn32-1308/c.2010.01.020
- [12] C.Y. Yu, Z.M. Dai, E.L. Ma. Reality and Expectations: An Empirical Analysis of Rural Family Elderly Care Reduction. *China Rural Observation*, 2017, vol (02) pp. 54-67
- [13] Y.W. Liu. Complementation or Alternative: Social Pension "and" Family Pension "—— Based on Urban-Rural differences". *Public Administration*, 2016, vol 13(04) pp. 77-88+156.10.16149/j.cnki.23-1523.2016.04.007
- [14] G.Z. Mu. The Change and Outlook of the Traditional Chinese Way of Raising the Pension. *Journal of Renmin University of China*, 2000, vol (05) pp. 39-44
- [15] C. Qiang. *Advanced Econometrics and STATA Applications*. Beijing: Higher Education Press. 2010
- [16] M.X. Ning. Who benefits from the new" family bundled " type of rural social endowment insurance system? —— from empirical Analysis of CHARLS Data. *China Rural Economy*, 2015, vol (07) pp. 31-45+96
- [17] G. Imbens, K. Kalyanaraman. Optimal bandwidth choice for the regression discontinuity estimator. *The Review of economic studies*, 2012, vol 79(3) pp. 933-959
- [18] Z.Y. Yang. Alternative or Complementation: The Interaction Mechanism of New Rural Cooperative Insurance and Rural Family Pension from the perspective of Group Classification —— comes from the Rural Survey Data of five provinces. *Public Administration*, 2016, vol 13(01) pp. 117-127+158-159.10.16149/j.cnki.23-1523.2016.01.011
- [19] B.H. Tian, L. Hua, Z.B. Zhong. Empirical Analysis of Living Situation and Pension Will —— Empirical Analysis of the Factors of Rural Elderly Families. *China Rural Observation*, 2012, vol (02) pp. 74-85
- [20] H. Künemund, M. Rein. There is more to receiving than needing: theoretical arguments and empirical explorations of crowding in and crowding out. *Ageing & Society*, 1999, vol 19(1) pp. 93-121
- [21] D. Cox. Motives for private income transfers. *Journal of political economy*, 1987, vol 95(3) pp. 508-546
- [22] E.Y. Yang, J.S. Pei, G.R. Ma. Empirical Analysis of the Housing Factors of the Elderly in China. *Agricultural Economic Issues*, 2012, vol 33(01) pp. 37-44+111.10.13246/j.cnki.iae.2012.01.015
- [23] K.Z. Jiang, Y. Pei, J.G. Deng, et al. Can Parent-child Living Together improve the welfare level of elderly families? —— Evidence Based on CHARLS Data. *Labor Economics Research*, 2014, vol 2(02) pp. 134-152