

# Research on issues of endowment insurance for urban villagers in Shijiazhuang city

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## Abstract

Endowment insurance directly relates to peasants' immediate interests, and has a direct influence on later life of landless peasants. The endowment insurance system for landless peasants has to be improved. Through survey and interview, as well as sampling of urban villages of Shijiazhuang City, where landless peasants mainly live, this paper adopts four-dimensional ecological model and analyzes the existing problems of endowment insurance for land-less peasants in urban villages of Shijiazhuang City. And on that basis, some specific solutions are provided.

*Keywords:* endowment insurance, landless peasant, ecological model

## 1 Introduction

Land is the the material base for human survival. If losing land, peasants lose the most basic living guarantee. They will become the disadvantaged group, and may become an instable element during the process of social and economic development [1-5]. Therefore, the government must pay attention to the issues of resettlement and social security for landless peasants. In China's multi-level social security system, endowment insurance directly relates to peasants' immediate interests and has a direct influence on later life of landless peasants. To solve issues of agriculture, farmer and rural area, and promote urbanization, the Party and all levels of government should develop and improve multi-level endowment insurance system for landless peasants [6, 7].

Currently, the researches are mainly concentrated on the issues of endowment insurance for landless peasants in developed regions, and analysis of the pros and cons of current policies is given from aspects of politics, economy, society and culture. Some theoretical measures are put forward against endowment insurance system for China's landless peasants, and the shortcomings of China's current endowment insurance for landless peasants are studied via qualitative analysis. However, it lacks empirical research

and quantitative method is seldom adopted to analyze relevant qualitative issues. And the principal status of peasants during participation in insurance is not established. Therefore, on the basis of the ecological model and by use of regression analysis, this paper analyzes various factors influencing landless peasants' participation in social endowment insurance and puts forward some suggestions to improve their initiatives to participate in endowment insurance.

## 2 Theoretical basis

This paper adopts relevant theories and conclusions in the academic circle about the factors influencing landless peasants' participation in social endowment insurance, and takes the ecological model as reference [8-10]. The ecological model was put forward by American sociologist Charles H. Zastrow and he divided social ecosystem into three types: macro system, mezzo system and micro system. This paper divides the factors influencing landless peasants' participation in social endowment insurance into four dimensions and its research hypothesis is as shown in Table 1.

TABLE 1 Ecological model of factors influencing landless peasants' participation in social endowment insurance

| Dimension            | Factors             | Characteristics   |
|----------------------|---------------------|---|
| Macro dimension      | Government policy   | contribution rate, payment years, government enforcement and conditions of getting a pension  |
| Mezzo dimension      | Community           | economic development level and location of community  |
| Micro dimension      | Family              | family income, average monthly expenditure and family members insured   |
| Individual dimension | peasants themselves | age, gender, education, labor contract, vocational training, policy knowledge, trust on policy, expected level of pension, and burden of dependency and support |

## 2 Data resource

Through survey and interview, the research group sampled

urban villages of Shijiazhuang City, where landless peasants mainly lived. Landless peasants over 20 years old were selected as the sampling object. According to the size of

urban villages in three districts, the research group randomly chose 2~3 villages to distribute 500 copies of questionnaires and collected 479 copies of valid questionnaires.

22.63% participate in government's endowment insurance, while the rest 77.37% have not participated in endowment insurance. It is as shown in Table 2.

2.1 ELDERLY-SUPPORTING WAY EXPECTED BY LANDLESS PEASANTS

Among 479 copies of valid questionnaires, as shown in Figure 1, 40.3% of peasants prefer government's endowment insurance, 24.4% prefer family supporting, 28.6 % prefer personal savings, and 1.6% prefer commercial insurance.

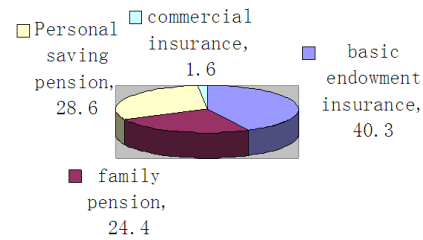


FIGURE 1 Land-lost farmers endowment way

2.2 PARTICIPATION STATUS OF BASIC ENDOWMENT INSURANCE BY LANDLESS PEASANTS

It is shown that, among 473 landless peasants in the survey,

TABLE 2 Participation status of basic endowment insurance by landless peasants

|                    | Number of peasants | Percentage % | Valid percentage % | Accumulated percentage % |
|--------------------|--------------------|--------------|--------------------|--------------------------|
| A Participated     | 108                | 22.63        | 22.63              | 22.63                    |
| B Not participated | 365                | 77.37        | 77.37              | 100                      |
| Total              | 473                | 100          | 100                |                          |

3 Analysis of results

3.1 ANALYSIS OF SINGLE FACTOR IN MICRO DIMENSION

Seen from the survey result, in terms of family income, 32.43% of families with income over RMB 3000 participate in insurance and have strong awareness of participation; 13.2% of families with income less than RMB 1000 participate in insurance and the least number of people are covered by insurance, with p=0.003. Therefore, in terms of families with different family income, the difference of participation rate is significant, which has statistical significance (P<0.05). In terms of education, those with higher educational background prefer to participate in insurance and the participation rate among those with

educational background of junior college is the highest, up to 62.57%; the participation rate among those with educational background of primary school and unschooled peasants is only 12.51%, with p=0.000. Therefore, there is statistically significant difference of participation rate among peasants with different educational background (p<0.05). In terms of burden of dependency, participation rate of each group is from 13.5% to 32.19%. The difference of participation rate among families with different burden of dependency is also statistically obvious (p<0.05). It is also known from the results that, in terms of burden of support, the participation rate of family members is from 2.25% to 31.9%. The difference of participation rate among families with different burden of support is obvious statistically, too (p<0.05). It is as shown in Table 3.

TABLE 3 Analysis of single factor in micro dimension

|                      |   | Frequency | Participation rate (%) | Chi-square value | P     |
|----------------------|---|-----------|------------------------|------------------|-------|
| Family income (Yuan) | < 1000  | 67        | 10.45                  | 13.762           | 0.003 |
|                      | 1000-1500   | 65        | 13.85                  |                  |       |
|                      | 1500-2000   | 142       | 23.94                  |                  |       |
|                      | 2000-3000   | 125       | 26.4                   |                  |       |
|                      | > 3000  | 74        | 32.43                  |                  |       |
| Education            | Below level of primary school                     | 88        | 12.5                   | 38.963           | 1     |
|                      | Primary school                                    | 122       | 16.52                  |                  |       |
|                      | Junior high school                                | 160       | 22.5                   |                  |       |
|                      | Senior high school and secondary technical school | 82        | 30.53                  |                  |       |
|                      | Junior college or above                           | 21        | 65.22                  |                  |       |
| Burden of dependency | No  | 146       | 32.19                  | 18.1209          | 0.001 |
|                      | Light   | 43        | 31.81                  |                  |       |
|                      | Moderate  | 75        | 20.06                  |                  |       |

|                   |            |     |       |        |   |
|-------------------|------------|-----|-------|--------|---|
|                   | Heavy      | 45  | 18.17 |        |   |
|                   | Very heavy | 164 | 13.5  |        |   |
| Burden of support | No         | 88  | 2.26  | 34.057 | 0 |
|                   | Light      | 46  | 13.04 |        |   |
|                   | Moderate   | 46  | 22.23 |        |   |
|                   | Heavy      | 62  | 24.58 |        |   |
|                   | Very heavy | 231 | 31.9  |        |   |

3.2 ANALYSIS OF SINGLE FACTOR IN MEZZO DIMENSION

Seen from the survey data, there is no statistically significant difference of participation rate of landless peasants in urban villages (p>0.05). According to income level of each community, peasants in the community with high income participate in endowment insurance more consciously. The

peasants with annual per capital income RMB 4000-4500 almost have no intention to participate in endowment insurance and the participation rate is only 13.67%; the peasants with annual per capital income RMB 5500-6000 have stronger awareness of participating in endowment insurance. According to annual per capital income, the difference of participation rate is statistically significant (p<0.05). It is as shown in Table 4.

TABLE 4 Analysis of single factor in mezzo dimension

|  |                                   | Frequency | Participation rate (%) | Chi-square value | P     |
|--|-----------------------------------|-----------|------------------------|------------------|-------|
| Annual per capital income in the village(Yuan) | 4000-4500                         | 138       | 13.66                  | 16.501           | 0.001 |
|  | 4500-5000                         | 157       | 20.52                  |                  |       |
|  | 5000-5500                         | 108       | 28.05                  |                  |       |
|  | 5500-6000                         | 80        | 36.61                  |                  |       |
| Urban villages                                 | Yue Village in Xinhua District    | 56        | 27.81                  | 4.425            | 0.490 |
|  | Tianjiazhuang in Xinhua District  | 68        | 22.39                  |                  |       |
|  | Tuxianzhuang in Chang'an District | 91        | 16.41                  |                  |       |
|  | Donggu Town in Chang'an District  | 82        | 16.51                  |                  |       |
|  | Dama Village in Yuhua District    | 73        | 25.01                  |                  |       |

3.3 ANALYSIS OF SINGLE FACTOR IN MICRO DIMENSION

Seen from statistical data, the rate of participation with one-time payment is 24.3%, while the rate of participation with several payments is 20.70%. There is no statistically significant difference of participation rate in terms of payment method (p>0.05). The government enforcement

can directly influence landless peasants' participation rate. The rate difference has statistical significance (p<0.05). The participation rate for 0-year payment is 20.15%, 23.87% for 5-year payment, 23.1% for 10-year payment and 24.17% for 15-year payment. There is no statistically significant difference of participation rate in terms of payment years (p>0.05). See Table 5.

TABLE 5 Analysis of single factor in micro dimension

|                        |                  | Frequency | Participation rate (%) | Chi-square value | P     |
|------------------------|------------------|-----------|------------------------|------------------|-------|
| Payment method         | One-time payment | 88        | 24.29                  | 0.74             | 0.39  |
|                        | Several payments | 385       | 20.71                  |                  |       |
| Government enforcement | Yes              | 93        | 32.61                  | 6.508            | 0.011 |
|                        | No               | 380       | 20.20                  |                  |       |
| Payment years (Year)   | 0                | 128       | 20.15                  | 0.667            | 0.881 |
|                        | 10               | 89        | 23.87                  |                  |       |
|                        | 15               | 166       | 23.05                  |                  |       |
|                        | 20               | 90        | 24.17                  |                  |       |

3.4 LOGISTIC REGRESSION ANALYSIS

There are two results caused by the government policy: insured and not insured. Here we set insured or not insured as the dependent variable and other factors as independent variables. Then the regression model of factors influencing landless peasants' participation in social endowment insurance is as follows:

$$\ln \frac{P(Y_i = 1)}{1 - P(Y_i = 1)} = b_0 + b_1x_1 + \dots + b_ix_i$$

In this Equation, when Y1=1, landless peasants participate in insurance; when Y2=0, landless peasants don't participate in insurance. P(Yi=1) represents participation probability of landless peasants; xi represents various factors; b0 represents constant term; bi represents regression coefficient.

In this regression model, four ordinal variables are

included, which are educational background, expected level of pension, average per capita income in villages, types of labor contract of survey objects. When they are not interval variables, then take them as nominal variables. The first three variables take the first level as reference and the fourth variable take the last level as reference (see Table 6). In

terms of gender, assume that 1 for male and 0 for female; in terms of family member insured or not insured, assume 1 for insured and 0 for not insured. They can be dichotomous independent variables, so process them as dummy variables. Payment method and satisfaction degree can be used as interval variables with scale data processing.

TABLE 6 Coding of classified variable

|   |   | Frequency | Coding |     |     |     |
|---|---|-----------|--------|-----|-----|-----|
|   |   |           | (1)    | (2) | (3) | (4) |
| Expected level of pension (Yuan/month)          | 200-400   | 61        | 0      | 0   | 0   | 0   |
|   | 400-600   | 66        | 1      | 0   | 0   | 0   |
|   | 600-800   | 97        | 0      | 1   | 0   | 0   |
|   | 800-1000  | 108       | 0      | 0   | 1   | 0   |
|   | > 1000  | 721       | 0      | 0   | 0   | 1   |
| Education                                       | Below level of primary school                     | 88        | 0      | 0   | 0   | 0   |
|   | Primary school                                    | 122       | 1      | 0   | 0   | 0   |
|   | Junior high school                                | 160       | 0      | 1   | 0   | 0   |
|   | Senior high school and secondary technical school | 82        | 0      | 0   | 1   | 0   |
|   | Junior college or above                           | 21        | 0      | 0   | 0   | 1   |
| Annual per capital income in the village (Yuan) | 4000-4500   | 139       | 0      | 0   | 0   |     |
|   | 4500-5000   | 155       | 1      | 0   | 0   |     |
|   | 5000-5500   | 106       | 0      | 1   | 0   |     |
|   | 5500-6000   | 73        | 0      | 0   | 1   |     |
| Type of labor contract                          | Long-term contract                                | 88        | 1      | 0   |     |     |
|   | Short-term contract                               | 295       | 0      | 1   |     |     |
|   | Unrenewed contract                                | 96        | 0      | 0   |     |     |

This paper uses the software SPSS18.0 to establish dichotomous response logistic regression model, with chi-square value 284.78 and degree of freedom 17. P=0.00, which means this model has statistical significance. And

Cox & Snell R Square of this model is 0.452, which means independent variables are persuasive to the model. The significance of variables and estimate of coefficient for the final model is as shown in Table 7.

TABLE 7 The Significance of variables and estimated coefficient

|                     |   | B     | S.E    | Wald   | df   | Sig.  | Exp(B)  |
|---------------------|---|-------|--------|--------|------|-------|---------|
| Step 1              | Gender  | -842  | 381    | 4.890  | 1    | .027  | .431    |
|                     | Age   | 176   | 43.1   | 6.748  | 1    | .000  | 1.193   |
|                     | Expected level of pension (Yuan/month)            |       |        | 7.691  | 4    | .104  |         |
|                     | 400-600   | 1.058 | .865   | 1.495  | 1    | .221  | 2882    |
|                     | 600-800   | 1.324 | 1.07   | 1.53   | 1    | .216  | 6.941   |
|                     | 800-1000  | 1.937 | .926   | 4.387  | 1    | .037  | 6.938   |
|                     | > 1000  | 2.187 | .955   | 5.261  | 1    | .022  | 8.896   |
|                     | Education   |       |        | 17.098 | 4    | .002  |         |
|                     | Primary school                                    | 1.131 | .712   | 2.925  | 1    | .112  | 3.095   |
|                     | Junior high school                                | 1.855 | .855   | 5.193  | 1    | .023  | 6.043   |
|                     | Senior high school and secondary technical school | 3.929 | 1.0.7  | 14.357 | 1    | .000  | 5.076   |
|                     | Junior college or above                           | 4.733 | 1.430  | 10.970 | 1    | .001  | 113.573 |
|                     | Annual per capital income in the village (Yuan)   |       |        | 10.481 | 3    | .0015 |         |
|                     | 4500-5000   | 1.971 | .722   | 7.413  | 1    | .006  | 7.175   |
|                     | 5000-5500   | 2.796 | .872   | 10.295 | 1    | .001  | 16.371  |
|                     | 5500-6000   | 2.603 | 1.056  | 6.079  | 1    | .014  | 13.522  |
|                     | Type of labor contract                            |       |        | 4.441  | 2    | .108  |         |
| Long-term contract  | 1.695   | .792  | 4.398  | 1      | .036 | 5.255 |         |
| Short-term contract | 1.183   | .290  | 2.943  | 1      | .086 | 3.271 |         |
| Constant term       | -19.232   | 2.316 | 71.062 | 1      | .000 | .000  |         |

3.5 ANALYSIS RESULT OF REGRESSION COEFFICIENTS

1) Individual dimension: Those landless peasants, who are aged, expect higher level of pension, are satisfied with

payment method and standard or are female, prefer to participate in endowment insurance. According to sustainable livelihood theory and theory of hierarchy of needs, landless female peasants are physically weak; there are limited job positions for them, and they get lower

income. Therefore, they are eager to participate in endowment insurance. Currently, those landless peasants, who have higher income and expectation that the pension level in future would not be reduced, show strong intention to participate in insurance. According to the theory of public goods, endowment insurance is a kind of quasi-public product which the government provides to landless peasants. Reasonable payment standard directly influence their initiative of participation.

2) Micro dimension: The higher educational background the group has, the more willing the group are to participate in insurance. Those peasants with lower educational background take in new things slowly and the sheep-flock effect appears easily. They have misunderstanding of national insurance policy and then their participation in insurance is influenced. Compared with the group without family member insured, the group with family member insured is more likely to participate in insurance.

In recent years, there are more and more only children and empty-nest families. With establishment of comprehensive social security system, peasants begin to pay attention to rural social insurance. Their concept of participation in insurance is influenced and they gradually learn about and participate in social insurance.

3) Mezzo dimension: Now in China there are mainly four ways of support: family support, self-support, community support and social support. The economy in the region where landless peasants live is under developed, so it is difficult to choose community support. Meanwhile, the traditional way of support is missing. Therefore, landless peasants pay more attention to social insurance. In the community with developed collective economy, there are more people who participate in insurance.

## 4 Conclusions and suggestions

### 4.1 CONCLUSIONS

1) There are too few landless peasants who participate in endowment insurance. China's government makes much effort to safeguard legitimate rights of landless peasants and solve their worries. From establishment and improvement of laws and regulations on land transfer to settlement measures after demolition, the government releases new Real Right Law and speeds up the establishment of multi-level social security system that is closely related to landless peasants. In reality, the rate of landless peasants' participation is still low. The peasants think the individual payment standard is too high and the difficulties of their lives also cause low participation rate.

2) In terms of individual and family factors, gender, age, income, expectation of pension level, knowledge of government policy and the trust on government policy, and individual payment ability directly influence participation rate. Participation status of family members and the burden

of dependency also directly influence participation rate. The family's monthly expenditure and the burden of support are minor factors. Economic concern is the major factor to have peasants seek for pension security. Generally landless peasants' participation in insurance is household-based, with family member participating together. Therefore, the family is an important factor to influence participation rate.

3) In terms of community, economic development level of the village is one of direct factors to influence participation rate. Group psychology always exists. People in the same region influence each other in the aspects of thinking and living. Those who have close relationship usually make similar decisions. Meanwhile, the expenses of endowment insurance are paid by the individual and the village. Therefore, economic situation of the village is one of direct factors to influence participation rate.

### 4.2 SUGGESTIONS

1) Strengthen re-employment training and improve re-employment ability. Only after landless peasants pay insurance premium for required years, can they get a pension when they are old. So the government should strengthen re-employment training for landless peasants, improve their skills and solve their employment issue. Landless peasants should actively join in the training, increase their income through employment and ensure insurance payment.

2) Perform the government's function of public service. The government develops national endowment insurance policy for landless peasants and should lead and encourage landless peasants to actively participate in insurance. The government should take preferential policies, like economic grant, to reduce the payment burden of landless peasants, and meanwhile should guide them to use the compensation funds properly and form the civilized lifestyle, and then improve participation rate.

3) Mobilize and stimulate the enthusiasm of the village collective. China's rural land belongs to the collective that is the basic unit to publicize and implement endowment insurance. The village collective should strengthen publicizing endowment insurance and improve landless peasants' knowledge of endowment insurance and their trust on insurance. The village collective should also collect information and implement policies of endowment insurance. Finally, the village collective should develop collective economy, subsidize some insurance premium, and stimulate the peasants' enthusiasm of participation in insurance.

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