

Old-Age Support in Rural China: An Empirical Study

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1. Introduction

Census data of 2000 indicated that the Chinese population aged 65 and over had accounted for 7% of the total population. In urban areas, in particular, that ratio was 6.30% and in rural areas, it was 7.35%. On average, China had entered an aging society. In recent years, old-age support in rural China has caught the attention of government officials and scholars alike. This is because rural households have undergone drastic transformation in size and structure as a result of the enforcement of the family planning policy. Coupled with the urbanization process and massive migration of rural laborers into cities, the aging process in rural China has accelerated, challenging the traditional pattern of old-age support in rural China.

In addition, because of the government's protracted policy of discriminating against rural residents in welfare policy-making, there has been no social safety network for rural residents. This is compounded by the general underdevelopment of the rural areas. This is why when the traditional modes of old-age support – family support, children's support and land support – are waning, no other alternative pension system (such as state, collective or market-driven) is available to make up for the deficiency. Obviously, old-age support in rural China is a grave issue that warrants serious attention. It was against such a backdrop that the State Family Planning Commission conducted a sampling survey in central and western China to investigate the status of household welfare, family-supported old-age care, and social security in those areas. This paper, based on data gathered from that survey, attempts to shed light on the old-age support wishes, ideas and

practices among rural residents in central and western China.

2. Analytic Framework

As early as in the early 1980s, Fei Xiaotong, a noted Chinese sociologist, began to pay attention to the issue of old-age support in rural China during an era of drastic transformations. After comparing Eastern and Western practices, Mr. Fei concluded that in the West, the A generation would raise the B generation, and the B generation would raise the C generation, and so forth, i.e. a "relay model". Taking care of parents in the West is not necessarily an obligation for children. In China, however, the A generation raises the B generation, the B generation will take care of the A generation in return. In short, the subsequent generation would "feed back" on the preceding generation. Mr. Fei called this the "feedback model". In short, taking care of parents was an obligation for children. Mr. Fei pointed out that such a relationship served to keep the Chinese heritage alive and uninterrupted. In rural areas, this traditional mode keeps families and traditions alive. Obviously, for a traditional Chinese household, the number of children, particularly that of sons, is a very important issue. Clearly, there are economic reasons behind it. Conversely, any change in the economic foundation will have an impact on the mode of old-age support and the cultural psyche associated with it.

In the 1960s and 1970s, Western economists examined the utility and benefits of children to families from a micro-population economic point of view. H. Leibenstein, the American economist, pointed out that in the underdeveloped world, having children had many positive utilities to families, such

as emotional crutch, labor, pension, and hedge against risks. With changes in the demographic structure, however, per capita income will be rising, and the direct and indirect cost of raising children will be increasing. Declining fertility rate, on the other hand, means shrinking size of families. Therefore, children's role as the source of parents' pension insurance will diminish as households' incomes rise. J. Caldwell, the Australian demographer, proposed in the 1970s the theory of wealth flows, suggesting that children are of different values to traditional and modern societies, and the flow of wealth differs from generation to generation. Farmers in eastern China, which is more developed than central and western China, have undergone changes in their mentality of old-age support, testifying to varying degrees to the validity of that theory. The picture for central and western China, however, is less clear. Have the farmers there changed their mindset, wishes and patterns of old-age support? This paper attempts to answer those questions.

This study was based on data gathered from a sampling survey of rural areas in central and western parts of China. It examined farmers' attitudes, desires and practices for old-age support in those regions. Previous studies had focused on a specific region or a special group (the elderly being cared for). This study was different from those in terms of either the representativeness of the surveyed regions or the group of people surveyed. The objective of the study was to understand current desires and attitudes of farmers toward old-age support as well as to examine current ways of old-age support in those areas. At the same time, it took note of the differences between spaces and regions and the potential differences between generations. We believe that such a study should shed light on the effort to build a social security scheme for rural residents.

3. Data and Methodology

3.1 Data and variables

As noted above, data for this study came from a survey conducted by the National Population and Family Planning Commission in November 2002 on old-age support practices of households that practice family planning. The survey used a stratified and

group random sampling method. Based on the level of economic development and natural conditions, a shortlist of four provinces – Heilongjiang, Hubei, Sichuan and Gansu – was produced. Within the four provinces, all the counties were categorized into three groups based on their level of per capita net income: high, medium and low. One county was randomly selected from each category, and in each county 1,000 households were surveyed. The targeted households were current residents in the surveyed site (including those that moved from elsewhere but had lived there longer than six months). Altogether, 12,000 households were surveyed, of which 11,618 samples were counted as valid.

To understand old-age support practices, wishes and attitudes, this paper used three dependent variables: "relying on children", "relying on self (spouse)" or "relying on government (collective)" for old-age support. These three variables demonstrate different attitudes and different mentalities toward retirement and constitute the measurements of this study. There are both overlapping and exclusive parts among the three. Generally, if the percentage of people favoring reliance on children for old-age support is high, then the percentage of those favoring reliance on themselves or government in the same group must be low, and vice versa. In this study, the percentages for the three variables – children, self and government – were 58%, 65% and 23% respectively.

Notably, for the same questions, the answers meant different things for different respondents. For most of the respondents (93% of the surveyed were aged 60 and below), the answers to the above three questions represented a wish, an idea and an expectation for old-age support, something that is yet to happen in the future. For those that were already being supported by one of the three factors, the answers could be a reality, an identification, or an expectation and anticipation. In fact, this ambiguous approach is useful for the purpose of this study and for the purpose of understanding the "feedback model" existing in parent-son relationships in rural China.

In our research model, the first independent variable of interest to us was the number of children in the household. Obviously, a necessary precondition for family-supported old-age care is the number of children in the family. In traditional societies, the

more the children, the more secure the elderly feel. The controlled variables of the study were demographics, level of socioeconomic development and location.

For demographics, we were particularly interested in the age variable, which could reflect differences between generations and the gaps between one's wishes and realities. Likewise, sex and marital status could also potentially impact people's preferences for old-age care. By the same token, education, occupation and economic status also affect our choices of and identification with different options. Therefore, in the controlled variables, we chose age, sex, marital status, occupation and living standard (see Table 1). For the vast rural China, regional disparities are huge and cannot be neglected. In fact, different areas have different cultural traditions, customs and levels of socioeconomic development. Therefore, there may be differences in practices and

attitudes. Regional disparities may be an important variable affecting the dependent variables. All these should be taken into account when we built our model.

3.2 Analytic tool

Because of the dichotomous nature of the variables (yes or no, agree or disagree), this study adopted the Logit methodology to analyze the impact. To gain insights into all the factors affecting rural residents' old-age care practices and mentality and obtain the net result of all the factors, this study used two regressive models. First was the basic model, with variables including the number of children in the family and controlled variables including demographics and socioeconomic development (age, sex, marital status, occupation, education and living standard). Second, we included the controlled variables of regional disparity and grouped age and

Table 1 Description of variables

| Variable | Average or % | Standard variance | Variable description |
|--|--------------|-------------------|--|
| Should one rely on one's children for old-age care? | 0.58 | 0.49 | 1: Yes; 0: No (reference group) |
| Should one rely on oneself (including spouse) for old-age care? | 0.65 | 0.48 | 1: Yes; 0: No (reference group) |
| Should one rely on the government (including the collective) for old-age care? | 0.23 | 0.42 | 1: Yes; 0: No (reference group) |
| Number of children | 1.81 | 1.00 | Min. 1; max. 8 |
| Number of boys | 0.95 | 0.78 | Min. 0; max. 6 |
| Number of girls | 0.86 | 0.85 | Min. 0; max. 6 |
| Age | 41.29 | 11.07 | 20-29 (reference group); 30-39; 40-49; 50-59; 60+ |
| Sex | 0.57 | 0.5 | 1: male; 0: female (reference group) |
| Marital status | 0.96 | 0.20 | 1: with spouse; 0: spouseless (reference group) |
| Education | 2.48 | 0.81 | 1: illiterate (reference group); 2: primary school; 3: junior middle school; 4: senior middle school and above |
| Occupation | 0.86 | 0.37 | 1: farming; 0: non-farming (reference group) |
| Living standard | 3.02 | 0.59 | 1: very wealthy; 5: very poor |
| Region | | | Sichuan (reference group); Hubei; Heilongjiang; Gansu |

Note: N=11,028

education for further analysis. This was designed to differentiate between impacts by different variables. In the model, we analyzed the different orientations and wishes for old-age care simultaneously so that on the one hand, we could examine farmers' attitudes and wishes from multiple angles and on the other hand, the different impact factors in the model could verify each other. In the analysis, this study took into account only households with children and rationalized some data that appeared illogical. Therefore, the model used 11,028 meaningful cases, accounting for 95% of the total number of meaningful samples. This study used Stats8 software. Refer to bibliographies 6 and 7 for the parameters and notes to the Logit model.

4. Discussions

4.1 General findings

Table 2 listed the results of the two models. This model examined two variables: demographics and economic status (age, sex, marital status, occupation, education and living standard), as well as the impact of regional disparity on the attitudes and practices of old-age care. The table shows that:

1. The number of children had an impact on expectations on children-supported care. The more children, the greater the expectations. For each additional child, the OR value for children-supported care increased. What is noteworthy, though, was that due to the implementation of the family planning policy over the last three decades, the fertility level in rural areas is already at a low level. This survey found that the number of children in rural areas ranged from 1 to 8, averaging 1.8. There could be underreportings, of course. The more children one has, the greater the expectations for the children to take care of them when they grow old. Naturally, they would not

Table 2 Main findings of the two models are as follows:

| Variable | <i>Relying on children</i> | | <i>Relying on oneself</i> | | <i>Relying on the state</i> | |
|-------------------------------|----------------------------|------------------|---------------------------|------------------|-----------------------------|------------------|
| | (1) <i>Coff.</i> | (2) <i>Coff.</i> | (1) <i>Coff.</i> | (2) <i>Coff.</i> | (1) <i>Coff.</i> | (2) <i>Coff.</i> |
| Number of children | 0.281*** | 0.241*** | -0.236*** | -0.184*** | -0.134*** | -0.068* |
| Age | -0.010*** | | -0.007** | | 0.026*** | |
| 30-39 | | -0.090 | | 0.088 | | 0.365*** |
| 40-49 | | 0.087 | | -0.107 | | 0.509*** |
| 50-59 | | -0.088 | | -0.148 | | 0.522*** |
| 60 and over | | -0.427** | | -0.552*** | | 0.839*** |
| Sex | 0.365*** | 0.135** | -0.296*** | -0.125** | -0.039 | 0.055 |
| Education | -0.186*** | | 0.109*** | | 0.090** | |
| Primary school | | 0.096 | | -0.012 | | -0.052 |
| Junior middle school | | -0.085 | | 0.037 | | -0.112 |
| Senior middle school and over | | -0.288** | | 0.094 | | 0.076 |
| With spouse | -0.120 | -0.011 | 0.506*** | 0.382*** | 0.253* | 0.232+ |
| Farming | 0.084 | 0.053 | -0.288*** | -0.312*** | -0.235*** | -0.222** |
| Living standard | -0.097** | -0.085* | -0.018 | -0.022 | 0.181*** | 0.202*** |
| Hubei | | 0.107+ | | 0.101+ | | 0.494*** |
| Heilongjiang | | -0.646*** | | 0.507*** | | -0.051 |
| Gansu | | 0.779*** | | -0.446*** | | -0.169* |
| Constant | 0.826*** | 0.103 | 1.098*** | 1.034*** | -2.844*** | -2.222*** |
| Chi2 | 306.38*** | 897.52*** | 417.10*** | 665.59*** | 120.22*** | 241.04*** |
| df | 7 | 15 | 7 | 15 | 7 | 15 |

Note: N=11,028 ***p<0.001 **p<0.01 *p<0.05 +p<0.1

expect themselves (or their spouse) or the

government to take care of them. Therefore, the number of children was negatively correlated with the wish to be taken care of by oneself or the government.

2. Age had an impact on expectations on children-supported care. The senior the age, the less the expectations. This sounds contradictory to conventional wisdom. The older one gets, the less one wants to rely on oneself and the more one wishes to rely on the government. We will provide more analysis in this direction later on.
3. Males were more willing than females to expect their children to take care of them rather than themselves or their spouse. This may suggest that males identified more with the tradition of raising sons to take care of oneself when one gets old. On the role of government or collective, however, there was no significant difference between males and females.
4. Education was another factor affecting expectations of children's support. The higher one's educational level, the less expectations they had of their children and the more expectations of themselves or the government. This in a sense is a reflection of the changing attitudes toward family care.
5. Marital status and occupation, though, did not show any significant difference in terms of expectations of children. In other words, there was no difference between those with spouse and those without, and no difference between farmers and those doing other jobs. On the other two variables (self and government), however, marital status and occupation did have an impact. Those with spouse were more willing to rely on themselves and government than those without spouse. And those working the fields were less confident than those doing other non-farming jobs in expecting themselves or the government to take care of them, because farmers have no social safety net to lean on.

6. Needless to say, economic status had a big impact on expectations of children. The poorer one is, the less expectations one has of their children. Rather, they tend to turn to the government for support.

4.2 Inter-generational impact

The research model in this study focused on families with children. Therefore, the age of the surveyed actually was directly related to the number of children in the family. Generally, the more senior the age, the greater the number of children. In the households that we surveyed, the average number of children for the 20-29 age-group families was 1.10, that for the 30-39 age group 1.47, for the 40-49 age group, 1.87, for the 50-59 age group, 2.38, and for the 60 and over age group, 3.50. In other words, the number of children in the family was positively correlated to the age group, which is directly related to the life cycle of the family (whether the fertility cycle was completed).

Since the early 1970s, when China began to implement family planning nationwide, particularly since the late 1970s, when that policy was enforced strictly, age was no longer a sensitive and important variable affecting the number of children in the family. Rather, the number of children was determined increasingly by the rigidity of the family planning policy and birth quotas. After we broke consecutive age variables into categorized ones, we could see changes in the attitude toward children-supported care by different age groups. Compared with the 30 and under age group, those in the 30-59 group didn't show any significant difference as to their attitude toward and expectation of family care. In addition, those aged 60 and over did not want their children to take care of them any more than the young (30 and under) group. Further analysis indicated that after controlling other important variables (such as education, living standard and regional disparity), for the 60 and over group, the more children they had, the less likely they identified with the children-supported care model. This suggested that in rural China, traditional values are being challenged. In fact, in less developed rural areas, the more children in the family, the more likely that none of the children would take responsibility for

caring for the elderly. Compared with the approach of treating age as a continuous variable, breaking age into different groups was more revealing. For the 60 and over group, relying on children, self or the government is a real concern; for the young group, however, old-age care is a remote concern and they have different expectations and attitudes regarding old-age care. This generation was born when the one-couple-one-child policy was already strictly enforced.

This inter-generational gap was also manifested in two other aspects. First, compared with the 30 and under group (reference group), the 60 and over group, because of their declining physical and economic conditions, could not possibly identify with the model of relying on oneself (or spouse) for old-age care. The 60 and under group did not show any significant difference with the reference group. On whether one should rely on the state for old-age care, both the 60 under and over groups tended to prefer government taking care of them. In addition, a comparison of standardized coefficients indicated that the more senior the age, the more likely one would opt for the government to take care of them: 15.93% for the 20-29 group, 22.10% for the 30-39 group, 24.86% for the 40-49 group, 24.00% for the 50-59 group, and 29.83% for the 60 and above group. The findings about the 60 and over group corresponded to the conclusions described earlier – that they wanted to rely on neither their children nor themselves.

4.3 Educational level

In the basic model, we already saw that the level of education had a negative correlation with the expectation for one's children to take care of oneself. Now, we want to know exactly at what level of one's education did his attitude toward family support start to change.

After classifying educational levels and using illiterates as the reference group, we found that there was no significant difference between those with a primary school education and the reference group; there was a significant difference, however, between those with a junior middle school, senior middle and above education and the reference group. The conclusions basically stayed the same after factoring in the age variant. After factoring in the variable of regional disparity, however, there was a significant

difference (see Table 2). In fact, after controlling the regional disparity variable, even in the same region, only those with a senior middle school education and above showed a difference from the reference group (they were less in favor of family care than the reference group). On the other two factors – reliance on oneself or government – education actually did not have any impact. Table 2 shows that education had a significant impact before the regional disparity variable was factored in; that statistical significance disappeared after the regional disparity factor was taken into account. This once again demonstrated the importance of the regional disparity to the variables.

4.4 Sex of children

When we broke the number of children into number of boys and number of girls while controlling other variables, leading indicators remained almost the same with Table 2; except for the "number of children" variable, the other variables did not have a significant impact. Of course, replacing the "number of children" with the "number of boys" and the "number of girls" was just another expression of that variable which should not affect other variables. The significance, however, is that this shed light on the impact of the sex of children on one's attitude toward mentality about and practices of old-age care. First, we found that after controlling other variables, for both boys and girls, the results were the same: the more children, the more likely to rely on them and less likely on self or government for old-age care. Second, there was a difference between boys and girls. On reliance on state, for example, after factoring in regional disparity, the number of girls did not have an impact on the respondents' choices; the more boys, however, the less likely they would rely on the state. In this model, boys did not show an overwhelming preference in terms of ways of and wishes for old-age care. This may be due to the fact that most of the respondents were young and middle-aged people (64% of them were aged 45 and under), and the questions to them were more of an intentional or wishful inclination than a real concern. In addition, years of family planning publicity had an impact, too as the notion of equality of the sexes became somewhat accepted by people. On the other hand, multiple-factor analysis showed that after controlling many important variables, the net effect of the sex difference diminished.

4.5 Regional disparity

In rural China, huge differences exist in almost every aspect of life, from macroeconomic and social development to social security schemes, values, and level of income. In fact, regional disparity was an important variable of interest to us. This survey sampled four provinces in central and western China: Heilongjiang, Hubei, Sichuan and Gansu. According to the State Statistics Bureau, the per capita GDP of China in 2001 was 7,543 yuan nationwide; 9,349 yuan in Heilongjiang, 7,813 yuan in Hubei, 5,250 in Sichuan, and 4,163 in Gansu.

In the model described above, we used Sichuan, a southwestern province with a lower-to-middle level of development, as a reference group to further examine the impact of regional disparity on farmers' attitudes and practices. Table 2 shows that first, there was marked difference – particularly in terms of attitudes and expectations – between different regions. Compared with the reference group (Sichuan), Hubei showed almost exactly the same results on “reliance on children” and “reliance on self/spouse”. The difference was minimal – $p < 0.1$. On “reliance on government”, though, there was a marked difference. Farmers in Hubei were more inclined to rely on the government or the collective.

Of the four provinces, Heilongjiang displayed greater heterogeneity. Compared with the other three regions, farmers in Heilongjiang were more autonomous and independent. Compared with the reference group, farmers in Heilongjiang were more willing to rely on themselves rather than their children. On “reliance on the government”, there was no difference.

Farmers in Gansu, however, represented the other extreme. Compared with Sichuan, farmers there placed more expectations on their children rather than themselves. Of the four regions, Gansu displayed the heaviest reliance on and greatest expectations for family care. Gansu also showed a weaker confidence level on “reliance on the government or collective for old-age care”. This may be due to the underdevelopment of the collective sector in the local economy.

Second, after factoring in regional disparity, most of the independent variables in the original model continued to exert an impact on the dependent variables, indicating that the model was a stable one. However, there were some changes in the extent of the impact. In most cases, the degree of impact was reduced and in some cases, it was no longer significant. On “reliance on government”, for example, the number of children was no longer important. After controlling the variable of regional disparity, the standardized coefficient changed and the “p” value decreased from “significant” to “slightly significant”. With regard to the “level of education”, answers to the question on whether one should rely on oneself or on the state for old-age care did not anymore show any statistical significance. As a matter of fact, “region” is a broad variable that contains much information. Regional disparity is an important variable affecting old-age care practices and values.

5. Conclusions

The quality data gathered in this survey represent to a large extent the vast rural areas in central and western China. Our findings are that first, family continues to be the dominant institution in old-age support (reliance on children or oneself). The “feedback model” and corresponding values and desires are still prevalent in rural China, although this model is already much different from the traditional extended family model. Nuclear families have replaced the extended family and separate dwellings have replaced the traditional model of “all living under the same roof”. As such, the relationship between parents and children are more relaxed than what was the case traditionally.

In response to the question “what’s the main reason for wanting more children”, 40% of the respondents in all the four places answered “raising a son(s) for old-age care”. Apparently, hedging against old age remains the most important motive for reproduction in rural China today. In fact, 66% of the respondents cited “hedging against old age” and “carrying on the family line” as main reasons for reproduction. This suggests that despite the impressive economic growth and family resizing, tradition is still kept alive and deep-rooted in rural areas of the central and western regions.

Second, despite the great impact of economic development on old-age care practices in China since the late 1970s, the impact has been minimal in the central and western parts of China. In the more developed eastern part of the country, for example, thanks to changes in family structures and rapid economic growth, great changes have taken place in the way the elderly are cared for. In southern Jiangsu, a prosperous province in east China, for example, family care is supplemented by community insurance and commercial insurance. In Guangdong, which borders Hong Kong, township enterprises are the backbone of the insurance scheme.

The central and western regions, however, are not comparable. Plagued by a weak collective economy and overall economic underdevelopment, less than 10% of the surveyed households bought private insurance policies. In Gansu, that percentage was as low as 5%. In fact, we found that farmers had all kinds of concerns about various insurance schemes, particularly commercial ones. On the one hand, they had little knowledge of those schemes, and their level of income was not significant enough to make them aware of the need for insurance. On the other hand, the poor and substandard services of insurance companies only exacerbated farmers' concerns. We found that in many localities, farmers who bought insurance not only did not get insured but lost their money. The image and credibility of the government and the insurance industry was badly damaged. Farmers, needless to say, were discouraged by these scams. Therefore, in central and western regions, neither the collective nor the commercial insurance market is dependable. More market regulation and government support are needed to grow that market.

Third, there were great inter-generational differences in terms of expectations and values. These differences represent different perspectives between different generations (particularly the young and the old) and between the caring and the cared. Among those aged 60 and above who were being cared for, having multiple children in the family did not necessarily mean that they were more dependent on their children. This is the reality in economically underdeveloped rural areas.

Finally, our analysis also showed that regional disparity was an important factor for the purpose of

this study. Since the late 1970s, the gap in the level of socioeconomic development in different parts of the country has been expanding. This is not only true of eastern and western China in general but also true of the central and western region itself. This indicates that in building and improving an old-age care system for rural China, we should not only study common issues facing all regions but should also pay attention to regional particularities and refrain from mandating a uniform model for all regions.

As noted above, given that the rural economy is still underdeveloped and the collective sector remains weak in central and western China, neither the collective nor the market is dependable. Therefore, while stabilizing the current fertility level, we should continue to give play to the role of family care. On the other hand, however, this should give us no reason to ignore the need for socialized insurance. The government needs to spend more in the central and western parts of the country and map out special policies for farmers in those regions.

As a matter of fact, the fertility level in rural China has dropped drastically – from 6-7 children to two per couple – since the 1970s when the family planning policy was enforced. This means farmers made great contributions to the population control effort of the government even though their level of socioeconomic development was still very low. Because of policy reasons, farmers have been denied social security for decades. With an accelerated aging process in rural areas, particularly in central and western parts of the country, how to take care of the rural elderly is becoming an unavoidable pressing issue. The state and the government, in order to stabilize rural communities and maintain social justice and sustainable development, must play a leading role in creating an old-age support system suited to local conditions for farmers in central and western regions. (Li Jianxin, associate professor with the Department of Sociology, Peking University; Yu Xuejun, research fellow and director of the China Population Information and Research Center; Wang Guangzhou and Liu Hongyan, associate research fellows, China Population Information and Research Center.)