

Draft

PAA2006, Session 308

Did Children Matter in Financial Support to Old Parents?

Xiaochun Qiao, PhD and Professor
Institute of Population Research
Peking University
Beijing, China

Kaiti Zhang, Director and Senior Researcher
China Research Center on Aging
Beijing, China

Fertility decline is one of main causes of aging, and the speed of the fertility decline determines the extent of the aging progress. Therefore, quick fertility decline in China in the late of 20th century implies that an accelerated aging process has been occurring in the early 21st century. Population and family structures are experiencing a dramatic transition and shift, while the convention and the demand of family support have not been changed yet due to lack of social security. However, the shortage of social resources and inadequacy of the family resources in terms of lack of the number of children in families in the early of the 21st century will lead hardship of the lives of the elderly. The objectives of this study are 1) to explore the financial contribution of adult children to their old parents and 2) the effect of the number and sex of children on the family support of the elderly in rural China.

Background

China's fertility rates have been decreasing for 40 years. In 1963, right after the economic crisis of 1959-1961, the total fertility rate (TFR) reached its peak of 7.5, and began decreasing afterwards with some fluctuations. Since the early 1970s, China has universally implemented a family planning program. Within only 10 years, the total fertility rate (TFR) decreased from 5.8 in 1970 to 2.2 in 1980. By the year 2000, the TFR

had decreased to 1.6¹, which approached the average level of 1.5 existing in developed countries. At the same time, life expectancies were also increasing, from 61.0 years for males and 61.4 years for females in 1963 (Qiao 2001) to 70.7 years for males and 74.4 for females in 2000². The dramatic fertility and mortality declines during the last half of the 20th century imply that sharp changes of age and family structure, that is, fast aging, will occur in the first half of the 21st century. After struggling with the pressure of the huge number of population in the 20th century, China now begins struggling with serious aging issues following the sharp decline of the fertility rate produced by the effective governmental family planning movement (Qiao 1996).

Population aging is a process in which the mean age of total population is increasing, usually followed with the increase of the proportion of the elderly (see Table 1). The China's youngest age structure occurred in the 1964 census, when the total population was 690 million, with a median age of only 20.4. The proportion of the elderly aged 65 and over was only 3.6 percent at that time. Since then, both the proportion of elderly and the median age of the population have been steadily increasing. In 2000, China's total population increased to 1265.8 million, which was 1.8 times of the population in 1964. However, the number of elderly aged 65 and over in 2000 was 3.7 times of the same population in 1964. The proportion of elderly aged 65 and over accounted for 7 percent and the median age was 30.9 years in 2000. In the same period, the dependency ratio of the elderly increased from 6.4 percent in 1964 to 9.9 percent in 2000.

Based on the population projection, we can see that the total population will decrease from 1265.8 million in 2000 to 1199.1 million in 2050, decreasing 5.6 percent, whereas the elderly, aged 65 years and over, will increase from 88.1 million in 2000 to 291.8 million in 2050, increasing 2.31 times. The proportion of elderly aged 65 years and over will increase from 7.0 percent in 2000 to 24.3 percent in 2050; the median age will

¹ This is the result which has been adjusted upward based on 2000 Chinese Population Census. As a matter of fact, the direct result of TFR calculated by the census data was only 1.22, which is unable to be accepted. In fact, it has been hard to obtain the actual fertility result since 1990 because of serious underreporting of the births (Qiao 2005).

² The life expectancies in 2000 (from October 1st 1999 to September 30th 2000) were calculated directly from the data of the 2000 Population Census without any adjustment to the data.

increase from 30.1 in 2000 to 46.9 in 2050, and the dependency rate of the elderly will increase from 9.9 percent in 2000 to 38.8 percent in 2050.

Table 1 Trends of Age Structure in China 1964-2060

Year	Total Population (Million)	Number (Million)			Proportion (%)			Median age	Dependency Ratio of the Elderly (%)
		<= 15	15-64	65>=	<=15	15-64	65>=		
Census Results									
1964	689.7	280.7	384.5	24.6	40.7	55.7	3.6	20.4	6.4
1982	1003.9	337.3	617.4	49.3	33.6	61.5	4.9	22.7	8.0
1990	1130.5	313.0	754.5	63.0	27.7	66.7	5.6	25.3	8.3
1995	1207.8	317.4	815.3	75.0	26.3	67.5	6.2	27.7	9.2
2000	1265.8	289.8	887.9	88.1	22.9	70.1	7.0	30.9	9.9
Population Projection									
2005	1304.3	245.5	957.4	101.4	18.8	73.4	7.8	33.3	10.6
2010	1338.0	238.5	989.0	110.5	17.8	73.9	8.3	35.6	11.2
2015	1364.5	252.0	983.9	128.6	18.5	72.1	9.4	37.1	13.1
2020	1372.1	239.2	973.8	159.2	17.4	71.0	11.6	38.8	16.4
2025	1363.3	215.1	968.9	179.3	15.8	71.1	13.2	40.8	18.5
2030	1346.6	191.4	939.6	215.5	14.2	69.8	16.0	43.0	22.9
2035	1323.0	181.3	884.1	257.6	13.7	66.8	19.5	45.2	29.1
2040	1290.4	178.5	828.8	283.1	13.8	64.2	21.9	46.2	34.2
2045	1248.8	170.2	793.2	285.3	13.6	63.5	22.8	46.4	36.0
2050	1199.1	155.0	752.2	291.8	12.9	62.7	24.3	46.9	38.8
2055	1147.2	139.2	691.2	316.8	12.1	60.2	27.6	47.9	45.8
2060	1098.5	127.7	655.7	315.2	11.6	59.7	28.7	49.0	48.1

Note: The 1964, 1982, and 1990 census data came from the BASIC DATA OF CHINA'S POPULATION, edited by Yao, Xinwu and Hua Yin, China Population Press, p.132; The 1995 data came from 1995 National One Percent Population Survey; The 2000 data came from the China Fifth Population Census.

Following the steps of the change of age structure in China, the changes of the family structure will also be sharp. Traditionally, in connection with old Chinese socioeconomic system, securing elderly in China was the duty of their adult children, making the words, “having children for security when getting old,” very popular in China. Originally, China was an agricultural country. This means that most people carried out agricultural work and lived on an agricultural system. Since 1949 when China was founded, a few people

who lived in urban areas³ could get pension or retirement income after they retired. There was no pension or social insurance in rural areas, and most elderly in rural areas had to be solely supported and taken care of by their children when they were no longer able to work and take care of themselves. It was crucial for couples to have more children, especially sons, under such systems to secure their lives when they became old⁴. This is why Chinese people had a very strong desire to have both more number of children and more number of sons than people in other countries, and why fertility rates were very high before family planning programs were induced in the early 1970s. Due to the efforts of the government, the family planning programs were quite effective. Fertility rates dropped quickly and the average number of children per family decreased dramatically. Table 2 shows the average number of children ever born by women in different age groups.

Table 2 Average Number of Children Ever Born by Women at Different Age Group, 2000⁵

Years in 2000	Years reaching to age 65	Average number of children ever born
30-34	2031-2035	1.53
35-39	2026-2030	1.86
40-44	2021-2025	2.04
45-49	2016-2020	2.37
50-54	2011-2015	3.24
55-59	2006-2010	4.02
60-64	2001-2005	4.61
65-69	1996-2000	5.04

Source: The data comes from both 1990 and 2000 censuses.

³ The Chinese population was divided into two kinds of population, urban and rural residents, based on the type of household licenses. People who have an urban household license, based on the employment policy, can automatically be given a job by the government and get a pension from the institution they worked for before they retire. In contrast, people who are rural residents are not allowed to work in urban areas, but work in agriculture in rural areas. Once they are unable to work due to old age, they have no pension, and they have to rely on their children.

⁴ In convention, sons, rather than daughters, have the duty to support and take care of their old parents, and one of them or each of them in turn should live with their old parents to take the duty.

⁵ The average number of children ever born by women aged less than 50 was calculated based on the 2000 census because only women aged 50 and less were required to answer the question. The remaining averages were based on the 1990 census due to the question asked to women aged 64 and less. In addition, the average number of children ever born for women age 30-34 can almost represent the complete fertility rate because 98 percent of women had finished childbearing before age 30 based on the result of the 1997 National Population and Reproductive Health Survey.

The average number of children⁶ was around five for the old women aged 65 to 69, the youngest elderly; women who reach age 65 from 2001 to 2010 still have over four children, on average, available to support and take care of them. We found that the number of children declines very quickly as the age of women decreases. The women who reach age 65 after 2025 will have less than 2 children available on average, decreasing by one half in the number of children compared with the women who reach age 65 before the year 2015.

Research Review

According to the Chinese convention, at least one of sons should live together with their old parents when all sons got married, regardless of the state of their parents' daily activities. Based on the national aging survey conducted in 1992, we found that there were 39.8 percent of elderly parents living with their children in urban areas and 44.0 percent in rural areas. Chinese people take sons living with their parents for granted, rather than daughters, so that the proportion of elderly living with sons was much higher than that living with daughters. Proportion living with old parents in rural areas was higher than that in urban areas, and the proportion living with oldest old is higher than that for younger elderly (Qiao 2001).

Under what extent do Chinese elderly financially depend on their children? Based on the 1988 national aging survey, it showed that there was 41.7 percent for women and 7.7 percent for men aged 60 and over in urban areas and 82 percent for women and 54.4 percent for men in rural areas who mainly depended on their children in financial support, regardless of inhabitation. But the differences by age group were very marked. To the elderly aged 80 and over, the proportions were 88.0 percent for women and 32.0 percent for men in urban areas and 98.0 percent for women and 95.0 percent for men in rural areas who depended on their children in financial support. There were also 14.4 percent

⁶ For accuracy, we should use the average number of children alive. Because the number of children ever born given at table 2 and the number of children alive were similar, we use the average number of children ever born here instead of the average number of children alive.

for women and 13.0 percent for men aged 60 and over in urban areas and 21.3 percent for women and 14.8 percent for men in rural areas who need partial and total assistance in their daily activities (Lin Jiang 1995). Because there is no social service system in China, the assistance for the old parents had to be taken by their children. What we mentioned above had shown that children in family have played very important roles in support of their old parents. However, we did not know if the decrease of the number of children at each family would be harmful to the lives of the elderly.

Xia and Ma (1995) concluded that the point of view, “function of family support will be weakened as the number of children decreases,” was not true; we overestimated the impact of decrease of the number of children on financial support to the elderly. As the financial support from parents to children was much more than the support from children to parents, decreasing the number of children would increase the quality of life and decrease the burden of parents so that the parents would accumulate more funds for their later life.

Gui Shixun and Ni Bo (1995) proposed a “compensation” hypothesis, which suppose that the magnitude of financial support from children to their old parents did not change as the increase of the number of children of the elderly, but depended on the magnitude of the gap between the needs of ordinary lives of the elderly and the incomes from non-children resources. They found that the net support from children to old parents in Shanghai was positive when the income of the elderly from non-children was less than 2000 Yuan RMB per year and negative when the income was greater than 2000 Yuan RMB per year.

Guo Zhigang and Zhang Kaiti (1996) disagreed to the points put forward by the Xia and Gui mentioned above. They thought that the magnitude of financial support from children was affected by the age structure of the elderly. Using multiple regression, they proved that the number of children had significant impact on the family support.

A research found (Xu Qin 1996) that although both son and daughter provided financial support to their old parents, the magnitude provided by sons was apparently more than

that of daughters. Sons played quite important roles in support of the late life of the elderly. The elderly received more financial support when they have more number of children than the elderly who have less number of children. Children from one child families took more burdens in financial support to their old parents than those from more-than-one-child families.

Studies of family structures, which represent the potential family support for the elderly, also revealed that the elderly in future would have fewer children available to provide support to their old parents (Zeng 1988; Hammel et al. 1991). Based on the SOCSIM simulation algorithm developed by Hammel and Wachter and the data of 1986 fertility and mortality in China, Lin Jiang (1994, 1995) projected the relationships of kinship and parents from 1990 to 2030, and concluded that the burden of supporting the elderly in Chinese family will increase tremendously, more than quadrupling in urban and more than doubling in rural areas during the next 40 years. Increases of this size mean that it is unlikely that the burden of the rapidly increasing number of elderly can be borne entirely by the family: the traditional system of family support will be overstrained unless there is government assistance.

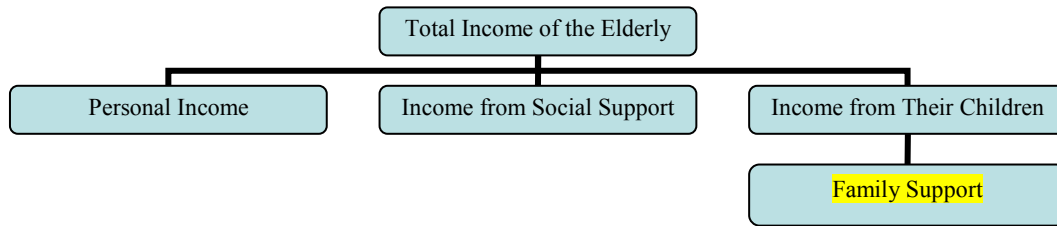
Why do the old people in rural areas matter? There are two reasons. 1) In urban areas, most people work in enterprises or institutions where pension is available when they retire. According to the 1992 national elderly survey (China Research Center on Aging 1994), 73.73% of the elderly were involved in pension-available institutions in urban areas. But in rural areas, only 5.88% of the elderly could get pensions when they retired, and most of them had no pension available when they were unable to work (Qiao 2001). 2) People in rural areas in China earned much less than those in urban areas. The annual per capita disposable income was 7703 Yuan RMB for urban residents and 2476 Yuan RMB for rural residents in 2002 (China Statistical Yearbook 2003). The income for urban residents was three times of the income for rural residents even though the demand of living expenditure in rural areas was also lower than that in urban areas. There are three potential resources of dependence for the people who are unable to work, that is, self or personal (combining with their spouses) support based on their own savings accumulated

previously; children's (sometimes including relatives') support (called family support here); and social support from out of families. As old people in rural areas are absent in self and social supports due to the two reasons given above, they have to be more dependent on their adult children.

Data and Method

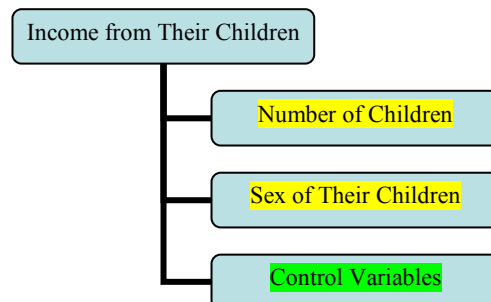
The data used for this paper are from two nationally representative aging surveys, that is, 1992 National Sampling Survey for Support System of the Elderly and 2000 National Cross-sectional Sampling Survey for Urban-rural Elderly. Both surveys were conducted by China Research Center on Aging. The questionnaires in urban areas and in rural areas were separated in the two surveys because the working styles and institutions in urban and rural areas in China are quite different. There were 10194 respondents and 10084 respondents aged 60 and over in rural areas in 1992 and 2000 surveys, respectively. Sometimes, we use data from 1992 survey due to not available in 2000 survey. However, most data used in this paper were taken from 2000 survey, especially for constructing models dealing with effect of the number and sex of children, because only the number of children, rather than the sex of the children, the respondents had was asked in 1992 survey.

We define the income of the elderly in rural areas in three parts (see the Chart below). First part is the self or personal income, involving income from their working salary, pension, insurance, and interest, etc.; the second part is the income from their own children, excluding the income from other relatives which accounted for relatively very small amount; and the third part is the income from social support such as social relief from previous working units or from community and Lowest Living Security, etc. All the incomes of the elderly received come from the three parts. We define the second part of the elderly incomes as family support in regarding to financial contribution from their own children.



In order to make clear if the income from children matters, the proportion of income from children to the total income, including all the three parts mentioned above, of the elderly received will be calculated. Further, we should prove if the number of children matters in financial contribution to their old parents. The last, we construct a linear model of the income from children to see if the number and sex of children matter.

We will show these results by calculating means of personal income and income from children by different age groups of the elderly, and show the proportion of the income from children. Then, we will calculate the mean income from children by the number of children the respondents had in order to see if the amount of income from children had something to do with the number of children the elderly had. Also, based on the three parts of the total income, we will show the gain when social support and family support were added to the personal support (or income) categorized by deciles. For demonstrating combined effect of the number and sex of children on the family support of the elderly in rural China, we will conduct multivariate analysis defining the income from children to their old parents as response variable and the number and sex of their children as explanatory variables, some demographic and socioeconomic characteristics as control variables (see the Chart below).



Descriptive Analysis

A very important feature for Chinese rural elderly

There were huge differences in educational status of rural elderly among age and sex which might produce some extent of impact on the financial support from their children (see Table 3).

Table 3 Literate Rate of Rural Elderly, 2000

	Illiterate Rate	Standard Error
Age groups		
60-64	42.1	0.93
65-69	55.4	0.94
70-74	65.4	1.04
75-79	68.3	1.26
80-84	73.1	1.70
85-89	71.8	2.99
90+	80.3	5.09
Sex		
Males	37.3	0.65
Females	81.5	0.58
Total	57.3	0.49

In general, the illiterate rate of rural elderly in China was very high because all of the respondents were born before 1940 and got educated in 1940s and 1950s when China was in very low development level. However, the differences of the education status among ages were also huge. For oldest old aged 80 and over, over 70 percent of elderly were illiterate, and for elderly aged 60-65 were just 42 percent. The difference in illiterate rate for elderly between males and females was also great. It was just 37 percent for males, and 81.5 percent for females.

Did children matter in providing financial support to their old parents?

Table 4 shows the personal income of the elderly and the income provided by their children as well as their composition by age groups in 1992 survey. As age increased, the personal income of the elderly decreased from 481 Yuan (equivalent to 60 US\$) per year on average at age 60-64 to 92 (11 US\$) Yuan per year at age 75-79 and to 28 Yuan (9 US\$) per year at age 85+. Correspondingly, the receipts from their children increased

from 236 Yuan per year at age 60-64 to 305 Yuan at age 75-79 and to 352 Yuan at age 85+. Financial support from children only accounted for one third of their total income from both themselves and their children for elderly aged 60 to 64. By age 70, half of the income of the elderly comes from their children. After age 80, almost 90% of their financial support was provided by their children. It seems that the children provided financial support to their parents in order to compensate for their inadequate personal savings and income. Even that, the sum of the two incomes still decreased following the age increased, which means that the compensation was not enough. It is clear that the elderly depend strongly on their children in financial support in their later life.

Table 4 Comparison of Income From Children With the Personal Income of Old Parents (Yuan RMB by One Year), 1992

Age group	Number of cases (1)	Personal income ¹		Income from children		Proportion of Income from children ³ (6)=(4)/[(2)+(4)]	Sum of the two incomes (7)=(2)+(4)
		Mean (2)	S. D. ² (3)	Mean (4)	S. D. (5)		
60-64	3142	480.80	764.32	236.35	381.84	32.96	717.15
65-69	2766	319.27	622.54	274.97	395.35	46.27	594.24
70-74	1947	181.03	385.44	290.60	383.50	61.62	471.63
75-79	1265	92.31	272.42	304.56	311.26	76.74	396.87
80-84	580	39.85	177.38	330.07	486.05	89.23	369.92
85+	249	28.14	167.35	351.58	344.53	92.49	379.72
Total	9949	290.80	597.99	274.72	384.99	48.58	565.52

Source: Calculated from the original data of Survey on China Support System for Elderly, China Research Center on Aging, 1992.

1. Earnings from people with pensions are not included because the proportion of these people only account for 5.88%, which would have little impact on the general result.

2. S. D. = standard deviation.

3. Proportion = mean of income from children/(mean of personal earnings + mean of income from children).

Did the number of children matter?

Not only children but also the number of children determines the amount of financial support to their old parents. In general, the more children the elderly have, the more income they receive. Table 5 shows that the amount of income received by the elderly increased with the increase of the number of children. Elderly who had only one child received 193 Yuan totally from their child during the last year of the survey. Elderly who

had four children received 243 Yuan totally. And elderly who had seven children received 386 Yuan, which is just double of the amount of income received by elderly who had only one child. This is why Chinese people have strong desire to have as more number of children as they can, especially in rural areas. The more number of children could contribute more to their old parents when they were getting old.

Table 5 Mean Income of the Elderly Per-Year by the Number of Children They Had, 1992

Number of children	Mean income from all children	S. D.	Number of cases (elderly age 60+)	Mean income from each child
1	193	290	870	193
2	209	256	1145	105
3	227	282	1517	76
4	243	333	2103	61
5	288	347	1932	58
6	371	536	1301	62
7	386	556	661	55
8	441	562	251	55
9	331	389	109	37
10	519	593	36	52
11	528	652	17	48
Total	268	383	9944	-

Note: 1) Based on Analysis of Variance, the F statistic = 36.08 and the p-value = .0000, which is statistically significant. 2) The cases that the number of children was more than 11 was omitted, but they were not omitted for the Total

In matter of fact, having more children could benefit not only the elderly but also their children. Table 5 also shows that the more siblings the children have, the less burden on each of the children. For elderly who had only one child, that child provided 193 Yuan, whereas each of the children who came from four-sibling families only gave 61 Yuan to their parents, three times less of the amount provided by the child from one-child families. From these, we can see that the children and the number of children played an important role in financial support for their elderly in rural areas. It is almost impossible for elderly to live without children or difficult for elderly to live with only child in rural China.

Data from 2000 survey showed the same picture as the data from 1992, but the difference was the overall increase of the amount between 1992 and 2000 (see Table 6). In 1992, the average income from children was 268 Yuan per year, while in 2000 it increased to 459 Yuan per year. It also showed that the more number of children the elderly had the more income the elderly received.

Table 6 Mean Income of the Elderly Per-Year by the Number of Children They Had, 2000

Number of Children	Mean	Number of Cases	Standard Deviation
1	230	463	599
2	280	875	668
3	374	1574	855
4	518	2150	1258
5	463	2025	906
6	537	1455	1539
7	568	746	879
8	562	319	1094
9	608	88	856
10	993	33	1795
Total	459	9748	1084

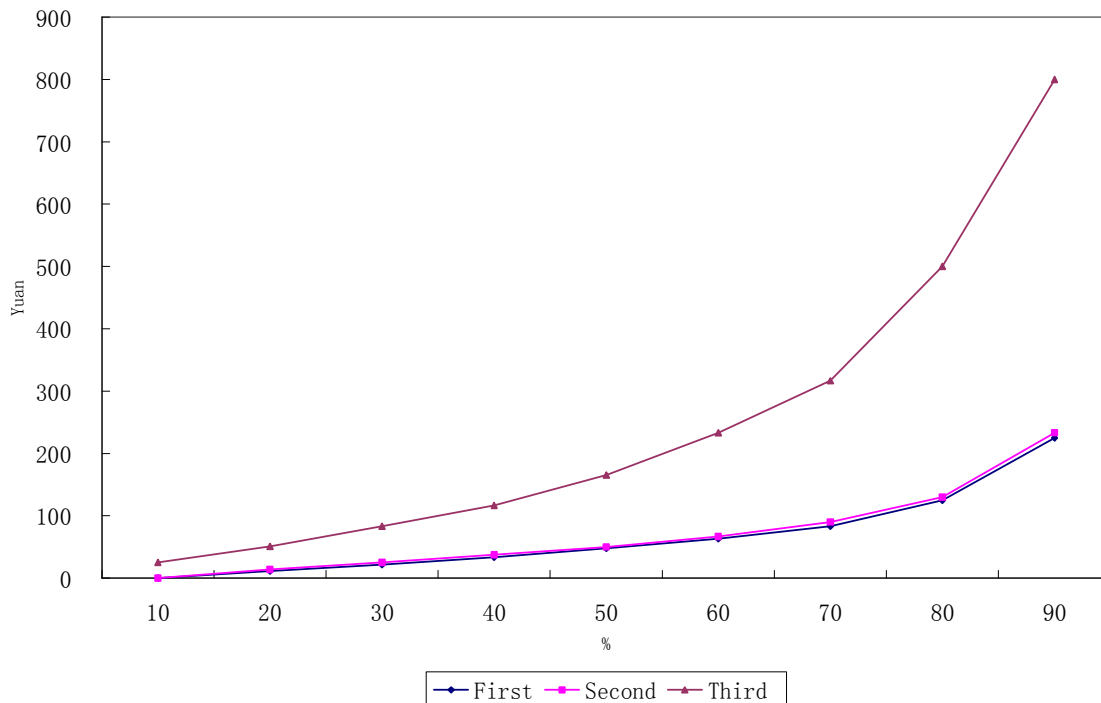
Note the cases that the number of children was more than 11 was omitted, but they were not omitted for the Total.

Some elderly in rural areas may or may not obtain some social support, rather than self support or support from children, if they were very poor, lost of working ability, or no child. In order to know how important the financial support provided by children was, we should take the social support into account. We decomposed the total incomes of the elderly, based on 2000 data, into the three components or layers (see Table 7 and Figure 1): personal income (first layer), personal plus social income (second layer), and personal plus social plus children and relatives' support (third layer). As the relatives' support accounted for almost nothing, we excluded this in the study. We can see that the social contributions were quite small and the children's contributions were substantial in rural areas.

Table 7 Deciles of the Total Income Per-Year by Three Layers, 2000

Deciles	Incomes by three Layers (Yuan RMB)			Contributions to the increase at each percentile (Yuan RMB)	
	Personal income (1)	Personal+Soci al income (2)	Personal+Social+ch ildren' s (3)	by Social support (4)	By Children' s support (5)
10	0	0	25	0	25
20	11	14	51	3	37
30	22	25	83	3	58
40	33	38	117	4	79
50	48	50	165	2	115
60	63	67	233	3	166
70	83	90	317	7	227
80	125	130	500	5	370
90	225	233	800	8	567

Figure 1 Deciles for Three Layers

**Did the number and sex of children matter?**

We have mentioned above that in Chinese convention, sons, rather than daughters, have obligation to live with and support and take care of their old parents. Even though the elderly have same number of children, the financial support for them may quite different because of the difference of the sex composition of children they have. We categorized the number and sex of children for the respondents and calculated the mean income from children by the number and sex composition of children the old parents had (see Table 8)

Table 8 Mean Incomes from Children by the Number and Sex Composition of Children of the Elderly, 2000.

Number and Sex of Children	Mean Income	Case	Standard Deviation
1 girl	175.2	163	292.3
1 boy	259.9	300	684.9
2 girls	274.2	85	511.0
2 boys	307.4	237	661.5
1 boy and 1 girl	269.6	553	692.1
3 boys	382.2	203	918.6
3 girls	372.9	81	685.8
2 boys and 1 girl	399.1	739	866.8
1 boy and 2 girls	339.3	551	838.0
4 boys	466.8	133	797.9

For the elderly who had only one child, the mean income the elderly received from the only child was much higher for the boy (260 Yuan RMB) than for the girl (175 Yuan RMB). Their difference was statistically significant. It was same to the elderly who had just two children. The difference of the mean income received from their children was also statistically significant, but the difference decreased. It seemed no difference in the mean income between 3 boys and 3 girls. When considering the same sex but different number of children, we found that the total income from all of the children increased following the increase of the number of children in same sex, such as 175 for 1 girl, 274 for 2 girls, and 373 for 3 girls, and 260 for 1 boy, 307 for 2 boys, 382 for 3 boys, and 467 for 4 boys. It seems that the impact of both the number and the sex of children on the income received by the elderly were very strong.

Multivariate Analysis

The descriptive analysis above has shown the general impact of the children and the number of children on the income received by their old parents. In order to clarify if the number of children and sex composition of children produced effect on the income the elderly received from their children by controlling other relevant variables, multiple regression models have to be used. The income from children was defined as the

dependent variable. The number of children, the number of boys and the number of girls, and the composition of the number and the sex of children were assumed as explanatory variables for model 1, model 2, and model 3, respectively. Sex, age, education, self-rated economic status, and self-rated health of the elderly, as well as perceived children's filial piety were defined as control variables. Linear regression models were adopted. The results of the three models were given at Table 9.

**Table 9 Parameter Estimates for the Income from Children by
Linear Regression, 2000**

Variables	Model 1	Model 2	Model 3
Explanatory Variables			
Number of Children	48.27***		
Number of Boys		57.64***	
Number of Girls		40.27***	
Number and Sex (#>=4 as Ref.)			
One Boy			-226.08***
One Girl			-293.44***
Two Boys			-197.97**
One Boy and One Girl			-233.00***
Two Girls			-189.76
Three Boys			-156.56*
Two Boys and One Girl			-102.90*
One Boy and Two Girls			-182.60***
Three Girls			-124.03
Control Variables			
Gender	36.88	35.45	36.89
Age	-5.51***	-5.52***	-4.83**
Education	58.62***	58.60***	57.42***
Self-rated Economic Status	-146.14***	-146.40***	-146.78***
Self-rated Health	-8.172	-8.445	-10.44
Perceived Filial Piety	-188.13***	-189.04***	-189.02***
F Score	66.91***	58.89***	31.38***
Case	9647	9647	9652
R2	0.046	0.046	0.047

*p<0.05; **p<0.01; ***p<0.001

Model 1 has proved that the number of children provided statistically significant impact on the income from children, that is, the more number of children the elderly had, the more income the elderly received from their children. Once additional child was added, there were, on average, 48 Yuan RMB per year were gained to the income of the elderly from children, while the grant mean of income from children was 459 Yuan per year.

Model 2 clarified the number of children into two variables, that is, the number of boys and the number of girls from which we proved that both the number of boys and the number of girls produced strong impact on the contribution of the income from children, but increasing a child would increase more income to the elderly for boys than for girls. Even though, sons, rather than daughters, should take the responsibility for the financial support for their old parents, the model showed that girls also did a lot in providing financial support to their old parents.

Model 3 put both the number and the sex of children together. We combined them into different categories, such as one boy and one girl for one child; two boys, two girls, and 1 boy and one girl for two children; three boys, three girls, 2 boys and 1 girl, and 1 boy and two girls for three children; and four children above. We made the categorical variable into dummy variable by converting the 10 values of one categorical variable into 9 dummy variables, and took the last group, four children above, as the reference. The results of the regression showed that, in general, 1) the difference between the number of children in lower part and four children above decreased following the increase of the number of children; 2) the difference between the incomes from two or three girls and four girls above were not statistically significant.

It should be noted that we treated all control variables of the three models as quantitative variables, rather than qualitative for some variables, because we did not care of the result of the control variables. Even that, we could still find some outcomes from the parameter estimates of the control variables. For example, 1) the result of regression did not find the evidence that elderly women got more financial support from their children than the

elderly men; 2) it proved that the elderly with higher education received more income from children than those with lower education status⁷; 3) worse economic status receive less financial support from children⁸. 4) perceived health of the respondents did not show its impact on the income from children; 5) decrease of the extent of filial piety of children to the elderly led to the decrease of income from children; and 6) the relationship between the income from children and the age of the elderly was significant, however, they relationship was negative..

In matter of fact, the control variable we chose should deal with some information of adult children of the respondents because the explanatory variables concerned the information of adult children. Unfortunately, all control variables we used just dealt with the information of the elderly, the respondents. This caused hardship to explain the results of the relationship between dependent variable and control variables.

Conclusion

As questionnaire of the survey did not classify the total income of the elderly into the contributions from each child and did not inquire the information of the children of the respondents, the data limited our view in looking into the relationship between the two generations. Financial demand from the elderly and financial supply from their children, conditional on the convention of family support, must be matched under the condition of the elderly and their children. In general, the elderly in unfavorable situation such as with unhealthy status, bad personal economic status, older age, and women need more financial support from their children, and whether the need could be met depends on the economic condition of their children even though they are willing to provide the support. The need of the elderly provides the possibility to be financially supported by their children, and the ability of the children can change the possibility into reality.

⁷ This might be caused by the education status of their children, rather than the elderly themselves, that high educated adult children earned more money than low educated adult. As the survey did not inquire the information of the children of the respondents, it was unable to get the education information of the children.

⁸ Their logic relation should be that less support from children led to the economic status of the old parents worse, because the economic status had involved the financial support from children.

Unfortunately, this paper is unable to explore the interaction between the demand of the elderly and the supply of the children due to lack of relevant data. However, we really have proved that children, as well as the number of children and the sex of children, really matter in financial support to their old parents.

In regards to the support and care for the elderly in China, the Chinese government still emphasizes and advocates family support and care for the elderly due to lack of personal support and social support. The Law of the Securing the Right of the Elderly was issued by the People's Congress in 1996, and regulated that children have the responsibility for financially supporting and taking care of their elderly parents. This means that enforcement by Law of the support and care for old parents is unconditional. However, we have portrayed the aging trend in China in the coming 50 years at Table 1 and Table 2, which told us that the number of adult children will decrease very fast. More old parents will have only one child who is highly likely to work and inhabit in separated places from their old parents. The challenge is that despite the adult children have desire to financially support and take care for their old parents they may not have the ability to do so because of the diminished number of children to share the support to their old parents. Even though we are willing to keep the virtue in family support to the old parent, the unfavorable condition for the family support and care for the elderly may cause the virtue disappeared in China in coming years.

References:

- Gui, Shixun and Ni Bo. 1995. "The 'Compensation' Theory of Economic Support for the Elderly." *Population Research (Chinese)*, 19(6): 1-6
- Guo, Zhigang and Kaiti Zhang. 1994. "Retesting the Role of the Number of Children in Family Support for the Elderly," *Population Research (Chinese)*, (20): 7-15
- Hammel, E. A., et al. 1991. "Rapid Population Change and Kinship: The Effects of Unstable Demographic Changes on Chinese Kinship Network" in *United Nations Consequences of Rapid Population Growth in Developing Countries*, pp. 243-271
- Lin Jiang. 1994. "Parity and Security: A Simulation Study of Old-age Support in Rural China," *Population and Development Review*, 20 (2): 423-448

- Lin, Jiang. 1995. "Changing Kinship Structure and Its Implications for Old-age Support in Urban and Rural China" *Population Studies*, 49(1): 127-145
- Martin, Linda G. 1988. "The Aging of Asia" *Journal of Gerontology: Social Sciences* 43 (4): 99-113
- National Bureau of Statistics of China. 2003. *China Statistical Yearbook 2003*, China Statistics Press: 341
- Qiao, Xiaochun. 1996. "Theoretical Views on the Consequence of Fertility Decline." *Sociological Research (Chinese)*, (5): 35-45
- Qiao, Xiaochun and Chirayath Suchindran. 2002. "The Elderly in China: The Impact of Population and Social Characteristics on Health and Happiness." *BOLD, Quarterly Journal of International Institute on Ageing (United Nations – Malta)*. November, Vol. 13: 18-24
- Qiao, Xiaochun. 2001. "Aging Issues and Policy Choices in Rural China" Paper presented at *IUSSP XXIVth General Population Conference*, Salvador, Brazil, 20th – 24th August 2001
- Qiao, Xiaochun. 2001. "From Decline of Fertility to Transition of Age Structure: Aging and Its Policy Implications in China" *GENUS LVII* (n.1): 57-81
- Qiao, Xiaochun. 2005. "Underreporting of Births: the Cause of the Chaos of the National Population Statistics in China." Presented at PAA2005
- Xia, Chuanling and Fengli Ma. 1995. "Impact of the Number of Children on the Family Support for the Elderly." *Population Research (Chinese)*, (19): 10-16
- Xu, Qin. 1996. "A Comparative Studies of Supporting Parents by Sons and Daughters" *Population Research (Chinese)*, 20(5): 23-31
- Yao, Xinwu and Hua Yin. 1992. "Basic Data Of China's Population," China Population Press, p.132
- Zeng, Yi. 1988. "Changing Demographic Characteristics and the Family Status of Chinese Women" *Population Studies* 42: 183-203