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Population Aging in China as Reflected by the Results of the 2005 Population Sample Survey

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Population aging, characterized by the increasing number of the elderly population and its enlarging proportion in the total population, refers to the process of aging of the population structure leading to an older society. Internationally, it is recognized that a society becomes an aging society when the proportion of the population at age 65 and over accounts for more than 7 percent of the total population.

Population aging in China began in late 1960s when both fertility and mortality started to decline and the proportion of the elderly population increased. In 1999, the proportion of the elderly population¹ approached 7 percent, indicating that China became a member of the group of aging society. In recent years, along with the continued growing of elderly population, issues associated with population aging have brought about various impacts on the economic and social life of the total population, and have been the focus of attention of the government and the society.

In 2005, the National Bureau of Statistics of China conducted a 1% population sample survey, covering a population of 17 million, or 1.31 percent of the total population. The wealth of information collected through the survey enables us to conduct a wide range of analysis on the population aging, from the total size of

¹ Elderly population refers to population aged 65 and over in this paper, unless otherwise referred to.

elderly population to its geographic and age distribution, the marital status, the source and pattern of living, the change in elderly dependency ratio, etc. This paper aims at describing the characteristics of population aging in China on the basis of 1% population survey, and discussing current status and issues of the elderly population.

I. General Characteristics of Population Aging in China

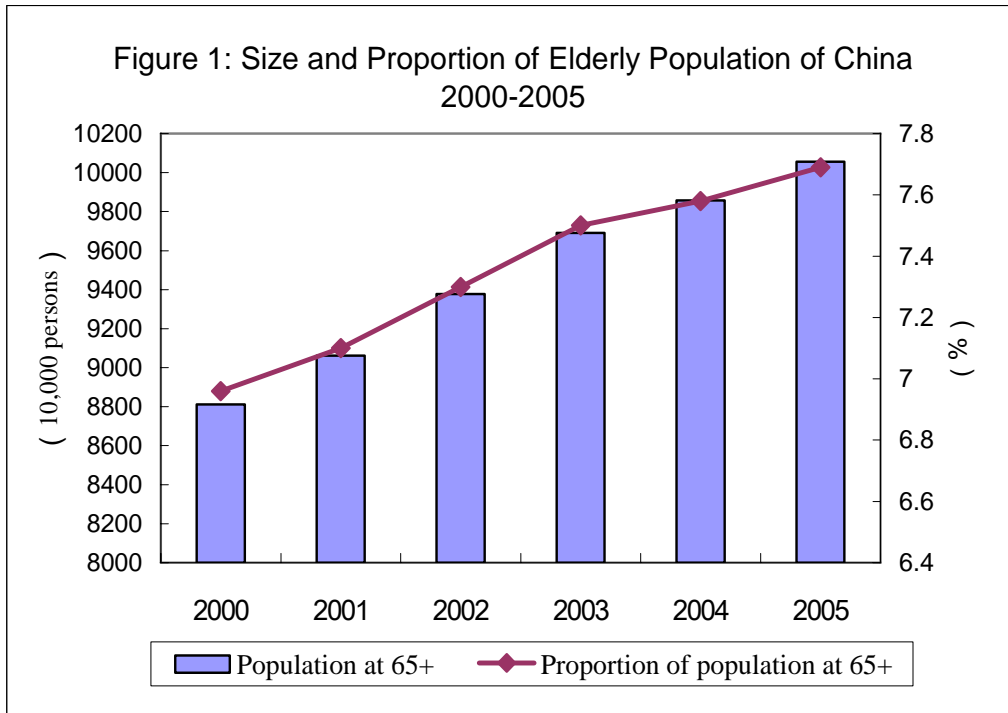
1. Size of elderly population topped 100 million

In 2005, population aged 65 and over in China numbered 100.55 million, accounting for 7.7 percent of the total population. Compared with 2004, the size of population aged 65 and over increased by 1.98 million, and the proportion increased by 0.11 percentage points. With over 100 million people at the age of 65 and over, China remains the country in the world with the largest size of elderly population. Table 1 and Figure 1 illustrate the continued growth of elderly population, both in size and in proportion, and the further progress of population aging.

Table 1: Size and Proportion of Elderly Population of China 2000-2005

Year-end figure in million

Year	Total population	Elderly population (65+)	Proportion of elderly population (%)
2000	1267.43	88.11	7.0
2001	1276.27	90.62	7.1
2002	1284.53	93.77	7.3
2003	1292.27	96.92	7.5
2004	1299.88	98.57	7.6
2005	1307.56	100.55	7.7



2. Growth rate of the elderly population was faster than that of total population

Between 2000 and 2005, the elderly population grew by 12.44 million, or an annual increase of 2.49 million or a growth rate of 2.68 percent per annum, whereas the annual growth rate of total population was 0.63 percent. The growth of elderly population was much faster than that of the total population.

3. There was an increase in the proportion of population at age 80 and over

Population at the age of 80 and over in 2005 totaled 15.13 million, accounting for 15 percent of the elderly population. This represented a growth of 3.14 million persons, or an increase of 1.4 percentage points in the proportion of elderly population, as compared with 2000. During 2000-2005, the average annual increase of population at 80 and over was 4.67 percent, much higher than the 2.68 percent annual growth of the elderly population (see Table 2).

Table 2: Average Annual Population Growth by Age Group 2000-2005

	Average annual increase (1,000 persons)	Average annual growth rate (%)
Total population	8030	0.63
Population at 65+	2490	2.68
Population at 80+	630	4.76

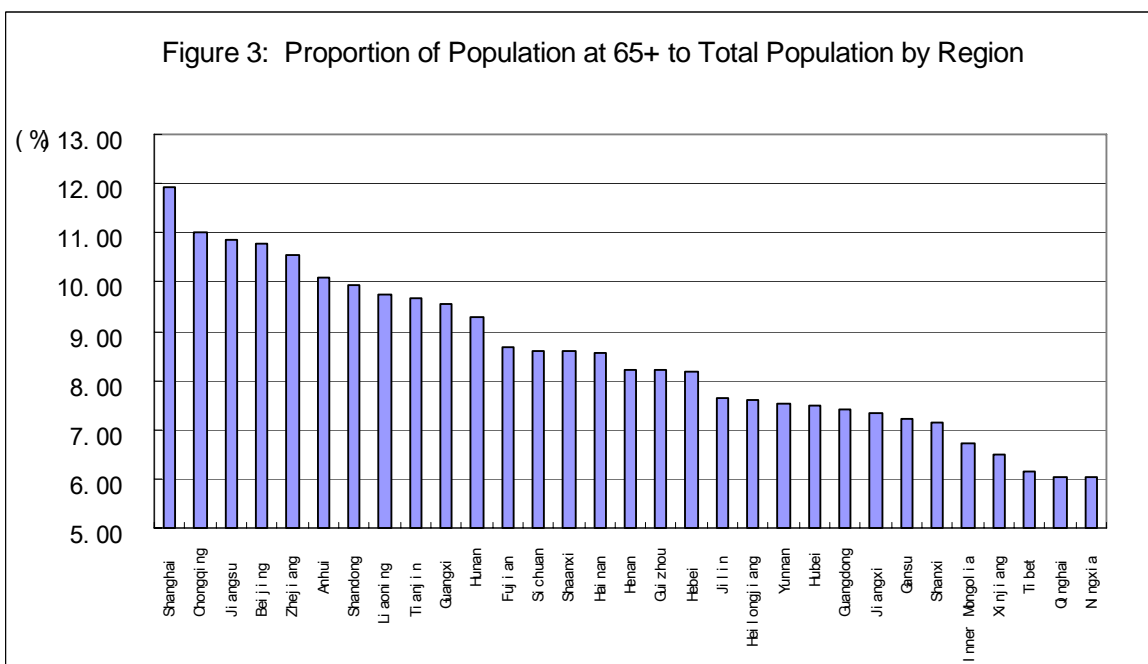
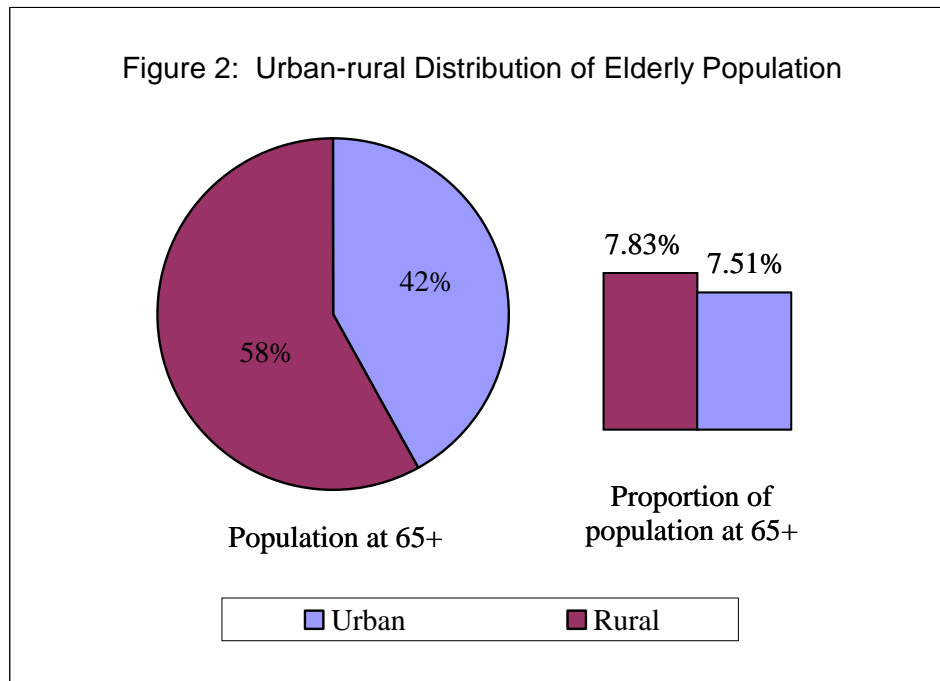
4. Great variation exists in population aging between urban and rural areas and among provinces

About 58 percent of the elderly population in China are living in rural areas, more than those living in urban areas. The significant change in the age structure of urban/rural population was the result of migration of rural working-age population into urban areas. In 2005, the proportion of elderly population made up of 7.8 percent of all rural population, higher than the urban proportion of 7.5 percent (see Figure 2). Analyzed by provinces, we saw a higher percentage of elderly population in economically more developed provinces. In 2005, Shanghai had the highest proportion of 11.94 percent of the elderly population, whereas in the western province of Ningxia Autonomous Region the corresponding figure was 6.02 percent, or merely 50 percent of that in Shanghai. There were 6 provinces (or equivalents) where the proportion of the elderly exceeded 10 percent, namely: Shanghai, Chongqing, Jiangsu, Beijing, Zhejiang, and Anhui; and 5 provinces where the proportion was less than 7 percent: Ningxia, Qinghai, Tibet, Xinjiang and Inner Mongolia (see Figure 3).

5. Population aging in China is characterized by “getting older before becoming richer”

In many countries, the phenomenon of population aging is accompanied with a developed economy. When they were at the threshold of an aging society, the per capita GDP was over 10,000 US dollars in most developed countries, and even in developing countries it was over 2,000 US dollars. China, however, entered into the aging society in 1999 when its per capita GDP was less than 1,000 US dollars, reaching only 1,700 US dollars in 2005. Moreover, with the largest number of the

elderly in the world and a rapid process of population aging, China is under the severe pressure in providing pensions and public health services to its huge elderly population given the still low level of economic development.



II . Current Status of the Elderly Population in China

1. Most of the elderly population are in good health condition

Results of the 2005 population survey indicates that 51.9 percent of the elderly population were in good health, 26.9 percent were fairly healthy, 19.3 percent were in poor health condition, and 1.8 percent were uncertain about their health condition. In other words, close to 20 percent of the elderly thought they were not in good health and could not work or take care of themselves (see Table 3). For the population at the age of 80 and above, these proportions changed significantly. Those who were healthy dropped by 23 percentage points to only 28.7 percent, while the proportion who felt in poor health rose by 20 percentage points to reach 39.3 percent.

Table 3 also suggests that the health condition of the urban elderly is much better than their rural counterparts, be it in 65+ group or in 80+ group. This reflects the variation in the quality of life, in the access to medical services and in the self-awareness of health between the urban and the rural elderly.

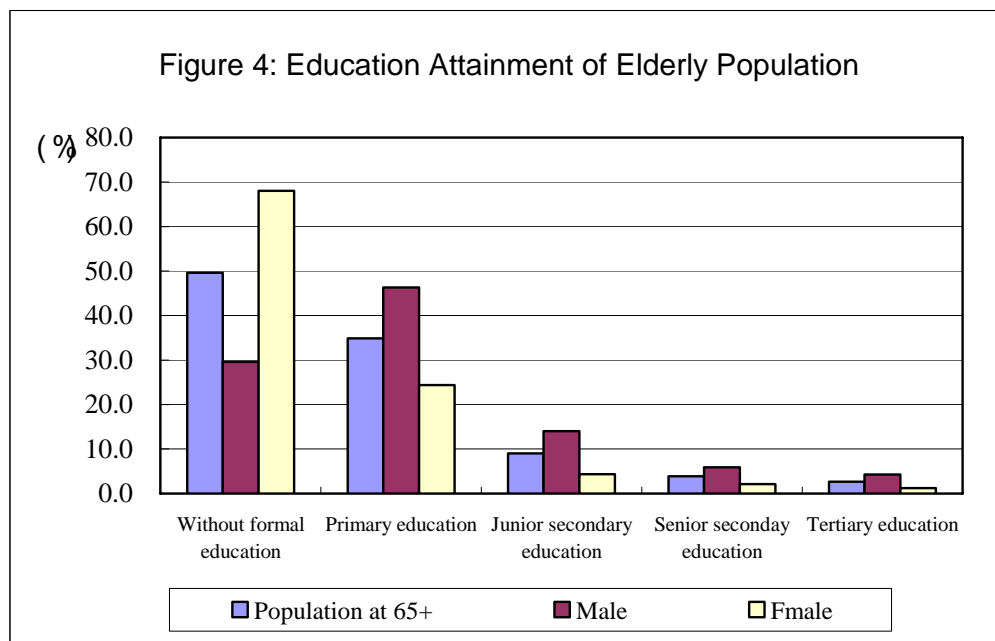
Table 3: Composition of Elderly Population by Health Condition, 2005

		%			
		In good health	In fair health	In poor health	Uncertain
Population at 65 and over	Total	51.9	26.9	19.3	1.8
	Urban	57.9	27.0	13.6	1.5
	Rural	47.6	26.8	23.5	2.1
Population at 80 and over	Total	28.7	28.6	39.3	3.4
	Urban	33.3	32.4	31.3	3.0
	Rural	25.6	26.1	44.7	3.6

2. Education of the elderly population was at low level

In 2005, only 50.4 percent of the elderly have some education, while 46.9 percent were illiterate, with an average of 3.8 years of education. About 2.7 percent of the elderly population had tertiary education, 3.9 percent had senior secondary education, 9.0 percent had junior secondary education, 34.9 percent had primary education, and the remaining 50 percent or less of the elderly had not had any formal education. Genderwise, the proportion of the male elderly who had received different

levels of education was significantly higher than that of the female. Survey results also revealed that this gender gap in education was narrower for the elderly population with higher education attainments. (see Figure 4)



Education has significant impact on the attitude towards, and quality of life for the elderly. Those with good education usually have also developed capacity of self-reliance, are active in various social activities, and are therefore less dependent on their families. The survey indicated an increase in the proportion of the elderly with higher education in recent years. They are regarded as the treasure of the aging society. Given the opportunity of bringing their knowledge into play by engaging them in economic and social activities, they could play an active role in promoting social advancement and in contributing to solving issues associated with the elderly population.

3. Proportion of never-married or divorced elderly population was low, while large proportion of the elderly was widowed

In 2005, about 63.7 percent of the elderly were married, 34.3 percent were widowed, 1.5 percent were never married and 0.5 percent were divorced. Of the elderly at age 80 and over, 64 percent were widowed, 34.6 percent were married, 0.9 percent were never married and 0.4 percent were divorced (see Table 4).

Analyzed by gender, the proportion of married male was much higher than female. In 2005, 75.3 percent of male elderly were married, with only 21.1 percent widowed. On the other hand, 53.0 percent of female elderly were married, and 46.4 percent were widowed. This difference was more prominent among the elderly at 80

and over. The life of widowed elderly calls for attention of the society.

Table 4: Marital Status of the Elderly Population, 2005

	Population aged 65 and over			Population aged 80 and over		
	Both sexes	Male	Female	Both sexes	Male	Female
Never married	1.5	2.9	0.2	0.9	1.8	0.3
First marriage with spouse	60.4	71.2	50.4	32.2	48.8	21.2
Re-marriage with spouse	3.3	4.1	2.6	2.4	4.0	1.4
Divorced	0.5	0.7	0.4	0.4	0.5	0.4
Widowed	34.3	21.1	46.4	64.0	44.9	76.7

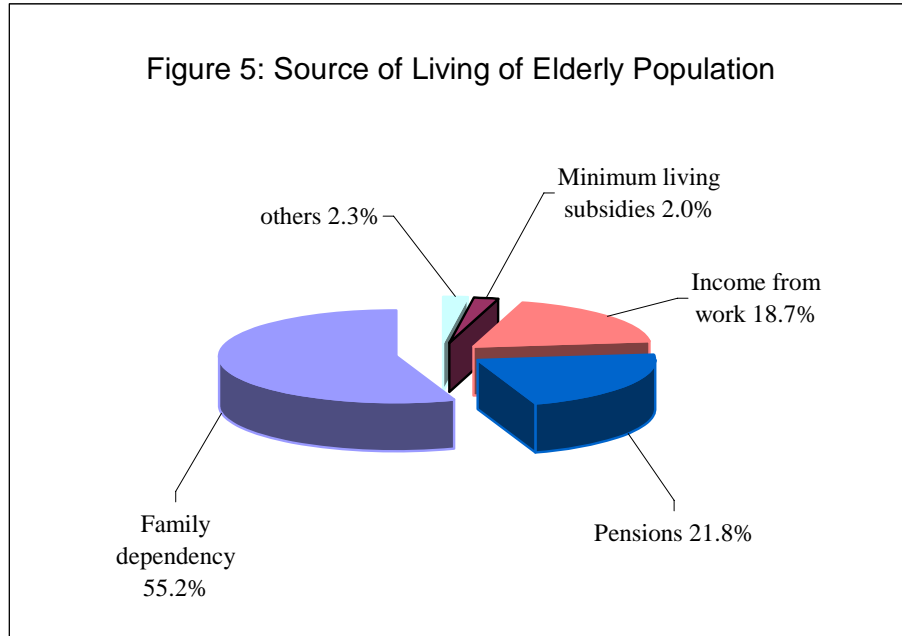
4. Main source of living for the elderly was depending on family members

Living arrangement for the elderly are mainly decided by the source of living. In 2005, source of living for many Chinese elderly was depending on other family members, accounting for 55.2 percent of the total; followed by those living on pensions, 21.8 percent; living on income from work, 18.7 percent; and living on other sources, 4.3 percent. (see Figure 5)

There was noticeable difference in source of living between the urban and the rural elderly. About 45.5 percent of elderly people in urban areas lived on retirement pensions, 41.3 percent depended on other members of the family, and another 8.2 percent on income from work. In rural areas, however, family dependency was the main source of living for most of the elderly, accounting for 65.2 percent. Those living on income from work in rural areas took up 26.3 percent, and only 4.6 percent lived on pensions. This comparison indicates that the urban elderly are economically more independent, while their rural counterparts are more dependent on their children or relatives. (see Table 5)

Table 5: Major Sources of Living for Urban and Rural Elderly Population

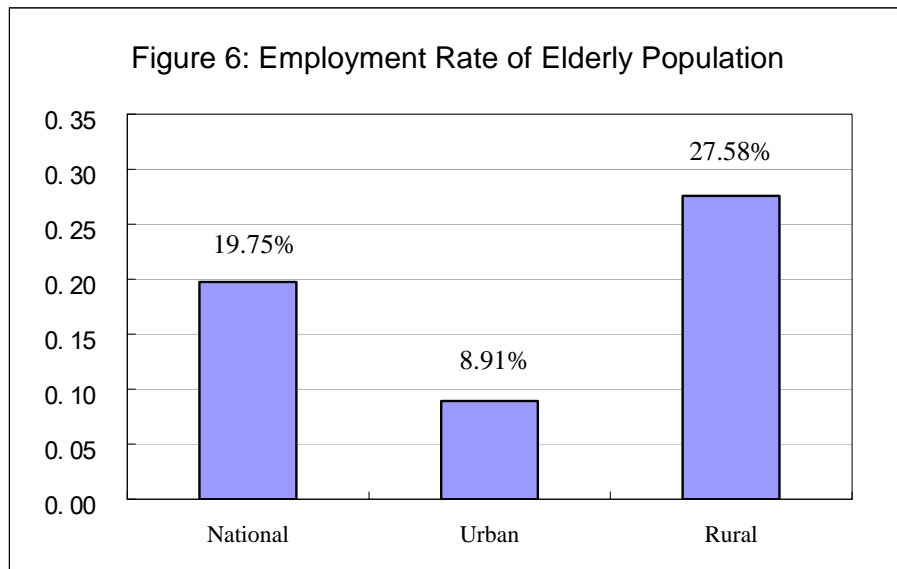
Urban areas			Rural areas		
1	Pensions	45.5	1	Family dependency	65.2
2	Family dependency	41.3	2	Income from work	26.3
3	Income from work	8.2	3	Pensions	4.6



5. Employment rate of the elderly was 19.7 percent

In 2005, close to 20 percent of the elderly population in China participated in economic activities, with a participation rate of 19.8 percent and an employment rate of 19.7 percent. As the urban elderly could live on their pensions thanks to the wide coverage of pension systems, the 8.9 percent employment rate for the urban elderly was significantly lower than 27.6 percent employment rate for the rural elderly (see Figure 6). Analyzed by industry, 91.5 percent of the employed elderly population were engaged in agriculture, forestry, animal husbandry and fishery, since most of them were living in rural areas, with only 2.4 percent engaged in wholesale and retail trade and catering services, and 2.2 percent in manufacturing industries.

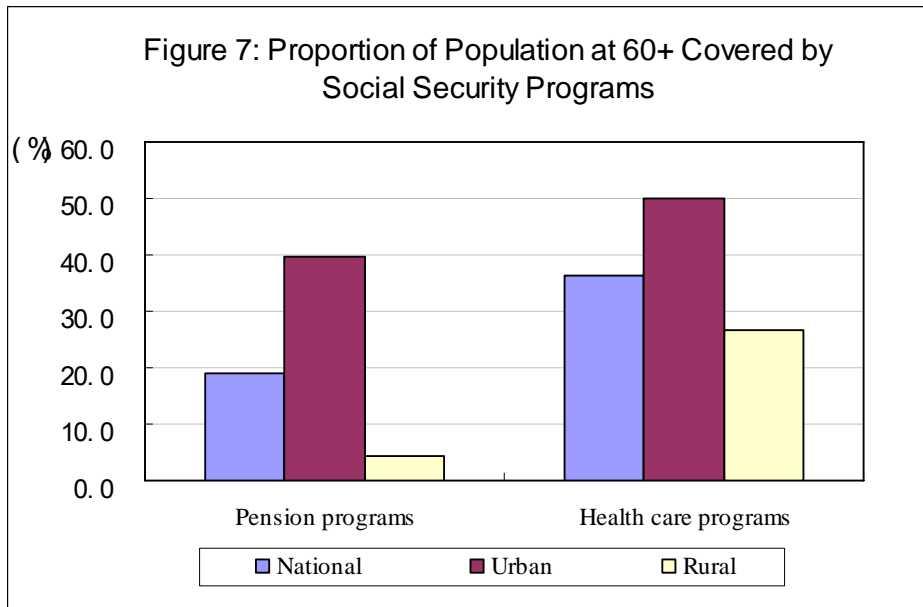
The above situation illustrates that the rural elderly have to take more agricultural activities as more and more rural young people have migrated to work in urban areas. On the other hand, due to the lack of social security system in rural areas, the rural elderly had no choice but to do manual work even at old ages to earn bread for their remaining years.



6. Social security program coverage for the elderly was low with large gap between urban and rural areas

In 2005, only 19.2 percent of the population aged 60 and over were covered by pension programs, representing a coverage rate of 39.8 percent in urban areas and 4.3 percent in rural areas. The overall coverage rate of health care programs was 36.5 percent: 50.0 percent in urban and 26.8 percent in rural areas (see Figure 7). Since most of the elderly are not covered by social security programs, it is imperative to accelerate the development of security programs especially for the elderly under the current situation when the role of families for the care of the elderly is weakening

The large gap in pension programs between urban and rural areas stemmed from the current security system in China. In urban areas, pension programs are compulsory, and the financing of programs are more secured when compared with the rural areas as it is shared by the governments, the employers and the employees. On the other hand, rural pension programs are established only in selected economically developed areas. This is the main reason of the low coverage of pension programs. The relatively higher coverage of health programs is due to the active promotion by the governments of the new rural cooperative health care programs.



III. Issues in Population Aging in China

Population aging has wide-reaching impacts on the economic and social development in China. The aging of the population has raised the elderly dependency ratio, increased the burden of the working-age population, brought about changes in size and structure of families and weakened the role of families in caring the elderly. It also puts forward more demanding requirements for social security systems, health care services and community services. The key challenge is that the still low level of economic development and the incompetence of the social security system could not meet the demands of ever-increasing size of the elderly population. Following are some of the issues concerning population aging.

1) Development of social security system for the elderly is lagging behind in rural areas. Although population aging in rural China nowadays is more prominent than in urban areas, basic security system such as pension and health care is lacking there. Generally speaking, the rural elderly are in poorer health condition than their urban counterparts, and many problems they are facing have to be solved by the family themselves, further increasing the burden of the families. Many rural families might fall into poverty when population aging escalates.

2) Quality of life of the elderly calls for attention. Apart from sources of living, other factors are also important in affecting the quality of life of the elderly, such as health, marital status and social participation. Deteriorating health condition, a new widowed life and less social participation are, to some extent, inevitable when people get older. All of these will make the elderly feel psychologically lonely or abandoned, and some of them might even lose confidence in life. It is particularly true for the single elderly and those whose children are far away. They need more care from the family and the society in terms of source of living, health care, daily life arrangement and mental consolation.

3) Medical and other services for the elderly are yet to be developed. To cater to the booming demands for health and caring services brought about by population aging, it is important to develop elderly-related service industry. As a country with the largest elderly population, China has been falling behind many other countries in providing services to meet the demands of the elderly. Care-taking institutes and trained nursing workers are limited in number, input into gerontology and geriatrics studies is insufficient, and the society in general is not well prepared to face the challenges of population aging.

In line with the new scientific approach to development and the long-term goal of building up a harmonious society which is pursued by the government, Chinese demographers and researchers have proposed various measures to deal effectively with issues concerning the elderly population. In view of the authors, following are of fundamental importance.

First, efforts should be made to take the advantage of the current “demographic dividend” to boost economic development and to improve the quality of life of the elderly. In 2005, the proportion of population at working ages (15-64) continued to grow to 72 percent of the total population. The total dependency ratio was 0.39 persons, i.e. every 5 working-age population will take care of less than 2 dependents. Analysis on the age structure of the population suggest that China is still in a demographically favorable period, with abundant working-age population and a declining total dependency ratio, characterized by a decreasing children dependency

ratio due to the shrinking number of births, and a slow-growing elderly dependency ratio. Demographers predict that this trend will last for the next 25 years. It is important to seize this opportunity to boost economic development and to enhance the capacity of the Chinese economy to support its ever aging population. More should be invested in building facilities for medical care, self-education, entertainment and sport activities suitable for the elderly, and in developing community service and nursing service for the elderly, in order to improve the quality of their life.

Second, innovation in social security system is needed to allow “pension programs for all”. The current pension system should be expanded and improved to gradually cover the entire population no matter they are in urban or rural areas. National and provincial governments should have a more proactive role in pooling resources for pension programs. Particular efforts are required to innovate in rural pension system with a wider coverage, so that the traditional model of family dependency could be gradually changed to a combination of family dependency and social pension programs.

Third, elderly-related industries should be promoted. Such industries could provide services that are designed or tailored for the special consumption needs of the elderly, including daily care, health care, cultural, recreational, leisure and sport activities, tourism, etc. Development of such industries would be very promising as there will be a large potential market in the future.