

A Comparative Study of the Pension Mode in First, Second-tier Cities and Third, Fourth-tier Cities in China



Xiaobo Wu, Yuchen Wu, Xiaobai Ma, and Xinyue Shen

1 The Status Quo and Development of the Pension Market in China

1.1 Overview of the Scale and Service Types of the Pension Market in China

As the base of the elderly expands and the degree of aging continues to increase in China, the scale of the pension market will continue to grow. According to the State Council's 13th Five-Year Plan for the Development of the Aging Industries and the Construction of the Pension System, it is estimated that in 2020, the number of people aged 60 and above will increase to approximately 260 million, accounting for approximately 17.8% of the total population; at the same time, the elderly dependency ratio will increase to approximately 28%; it is estimated that the elderly will reach 360 million, accounting for 25.5% of the total population by 2030.¹ China will become the most aging country in the world.

From the supply side, as shown in Table 1, there were 33,043 pension organizations nationwide in the statistics of the national pension organization in 2014. The regional

¹ See Wang Jingling and Hualong, "Study on the Necessity of Applying PPP Mechanism to the Construction of Pension Institutions in China", *Economic Research Reference*, 2014(52).

X. Wu (✉)

School of Management, Zhejiang University, Hangzhou, China

Y. Wu

Guanghua School of Management, Peking University, Beijing, China

X. Ma

Enterprise Research Institute, Development Research Center of the State Council, Beijing, China

X. Shen

University of Sydney, Sydney, NSW, Australia

distribution differed significantly, characterized as “plentiful in eastern regions and scarce in western areas”. Figure 1 shows that the distribution is positively correlated with the total economic output of the region as a whole (except Anhui, Jiangxi, Fujian, etc.), but from the demand side, the contradiction between supply and demand is relatively significant. In most provinces, pension institutions cannot completely match the needs of local elderly people. On the other hand, service capabilities and profitability are also very different. The average size of pension institutions is 102 beds, and the city with the largest average size is Beijing, which has 284 beds. Eighty-seven percent of the pension institutions provide daily care as the main service, only approximately 10% provide nursing and rehabilitation, and approximately 3% of the institutions provide hospice care. According to the survey data of the “National Survey on the Basic Status of Private Elderly Service Institutions” from the National Office for Aging, more than half (51%) of the institutions can only maintain balance, 40% are in a state of loss for many years, and only 9% can profit. The institutions with a profit rate below 5% accounted for 78%, operating at marginal profits.

The pension market can be divided horizontally into three categories: the housing market, the service market, and the consumption market. Each segment has subdivisions. For example, the service market includes the health care service market, financial insurance service market, and cultural consulting service market. Vertically, as shown in Table 2, the pension market can be divided into three major industrial clusters: core industries, subsidiary industries, and derivative industries. The “core industry” meets the basic survival needs of the elderly and consists of the housing industry, medical care industry, pension service industry and elderly products. The “subsidiary industry” is the upstream industry, such as the upstream housing design

Table 1 Number of pension institutions in each province (autonomous region) in 2014 (except for Hong Kong, Taiwan and Macao)

Southwest	4682	North China	3788	Northeast	3444
Sichuan	3409	Hebei	1283	Liaoning	1663
Chongqing	900	Shanxi	833	Heilongjiang	983
Yunnan	495	Inner Mongolia	734	Jilin	798
Guizhou	59	Beijing	592		
		Tianjin	346		
Northwest	1922	Central China	6151	East China	10,116
Shaanxi	759	Henan	2540	Jiangsu	2324
Xinjiang	598	Hubei	2008	Shandong	2119
Gansu	342	Hunan	1603	Zhejiang	1919
Qinghai	143	South China	2201	Jiangxi	1906
Ningxia	80	Guangdong	1489	Anhui	831
		Guangxi	492	Shanghai	637
		Hainan	220	Fujian	380
				Total	33,043

Table 2 Vertical segmentation of the pension market

Derivative industry	Investment and Finance, Cultural Entertainment Insurance and trust, education and training Consulting services, senior travels
Subsidiary industries	Raw material production, equipment manufacturing Product research and development, human resources education
Core industries	Hospice housing, long-term care Health care, senior products

institution pension. With the process of shifting to the aging industry, the current pension market presents characteristics of a “single pension mode, great regional differentiation, and few professionals”.²

First, in terms of the pension mode, according to the Notice of the General Office of the State Council on Printing and Distributing the Social Pension Service System Construction Plan (2011–2015) (Guobanfa [2011] No. 60), “the social pension service system is mainly composed of three organic parts: family pension, community pension, and institution pension.” It clearly stated that a new system “where the elderly are provided with family pension, taken care of by the community and supported by social services” will be built. However, in reality, the current overall pension mode in China is still dominated by the family pension, with the distribution of three parts accounting for 96, 3 and 1%, respectively. The traditional concepts of “attached to the land and unwilling to move” and “raising children for support” hindered the development of the pension market. The financial burden for children supporting the elderly under the “4-2-1” family mode has increased with the development of the economy and changes in lifestyles; the traditional mode has been severely challenged and therefore urgently needs to be changed. However, on the other hand, the elderly, especially those in first- and second-tier cities, have begun to actively explore new pension modes, which have given birth to ecosystems such as smart pensions.

Second, the overall development of China’s pension market is still slow and in need of professional talent. Taking the operation of senior housing and service institutions as an example, the overall humanized design and high-quality operation of residential development and service operation still require long-term market cultivation; an inadequate number and poor quality of nursing staff, scarce mature talent, and frequently flowing personnel all make it difficult to establish a professional team and provide stable and high-quality services. In addition, the investment scales of pension-related communities and service institutions are usually large, the payback periods are long, and cash flow is slow, making it difficult to obtain economies of scale and maintain long-term operations without long-term capital support.

² See Yang Lixiong, “Research on the Development of Aging Service Industry”, *Journal of Xinjiang Normal University*, 2017(2).

The social pension system in China is still facing the serious problem of uneven regional development in urban and rural areas, reflected on the one hand in the regional echelon from east to the west (Shanghai first entered the aging society in 1979, 33 years earlier than Ningxia), and on the other hand, in the apparently higher number of elderly in third- and fourth-tier towns than in first- and second-tier towns. With the development of urbanization, a large amount of labor has been employed in first- and second-tier cities, which has led to the differentiation of age structure in third- and fourth-tier cities; many young and middle-aged laborers in underdeveloped third- and fourth-tier cities flow to core cities, but because of the household registration system and the high housing prices in cities, they cannot settle down, let alone take their parents with them to live together. Consequently, elderly people have to be left behind in less developed cities. In rural areas, they can still rely on neighbors and relatives in the village to take care of each other, and the village committee can also be of help in some ways; however, in third- and fourth-tier towns, neighbor relations are not as close as the countryside, as most people live in high-rise buildings in the community. Some elderly people with limited self-care ability cannot get care and help from their neighbors and the neighborhood committees. The property management company is not responsible for the care of the elderly, plus the late start of volunteer service. Therefore, family pension is not effective for many elderly living in third- and fourth-tier cities and towns. For institutional pensions, the relatively high cost and the limited number of beds make it not easier to ensure care and support for the elderly. As China's urbanization continues to develop rapidly, a large number of people will still flock to developed and advanced cities, and the problem will become severe.

1.3 Development and Evolution of Pension Modes in Foreign Countries

We can find some future development paths from the development experience of other countries through international comparisons.

(1) The development of Japan's pension mode

China is about to become the first developing country to enter an aging society, and Japan is the first developed country to enter an aging society (more than 20% of the population was over 65 in 1970). As a close neighbor to China, Japan is deeply influenced by Chinese Confucianism. The rich experience it has accumulated in the field of social pension services has obvious reference significance for China. Japan started aging in 1970, and in 1963, it introduced the world's first legislation on the welfare of the elderly, The Elderly Welfare Law. Since 1989, it has begun to implement the Golden Plan to cope with the aging society, with the main purpose of increasing the social supply of pension services. To implement the plan, the local government has built large-scale and high-end pension facilities in the suburbs or on the seashores. However, the elderly are unwilling to leave their home and community,

causing the failure of this plan and new orientation of supporting the elderly at home. The facility construction of pension institutions was characterized by “pocket size and small” and deployed in cities close to the community. This pension mode is worthy of reference.

In addition, the Japanese government has also implemented the Nursing Care Insurance System since 2000, advocating the return of the elderly to their families and communities. With economic growth and the diversification of lifestyles, the function of family support has begun to weaken. The cohabitation rate of the elderly and their children has gradually declined from 70% in the 1980s to less than 40%. Japan began to promote the unification of family pension, medical care, health care and welfare. Japanese law stipulates that as long as there is a middle school, there must be a community-based family pension support center to provide comprehensive and continuous support and services to the elderly. The effect of the insurance system has been remarkable. Taking 2009 as an example, the number of people receiving insurance services in Japan quadrupled from the date of implementation of the system, and the number of new service facilities for the elderly in insurance institutions tripled while effectively controlling the excessive expenditure of medical funds, which opened the door for private enterprises to enter the pension service market. The scale of the pension market is expanding under the opening strategy of government promotion. Its support and supervision policies for pension service enterprises are also worthy of reference.

(B) The development of the United States pension mode

As a highly immigrated and market-oriented country, the shape and service mode of the elderly in the United States are quite different from those in China. The United States entered an elderly society in 1940 (the proportion of elderly people over 65 reached 7%). The marketization of the pension industry has been very mature, which has positive reference significance for the development of private pension institutions in China.

The elderly in the United States are highly independent and generally do not rely on their children after retirement. Most Americans sell their houses and live in elderly apartments after retirement, paying for the apartment with money from the house sale. More elderly people prefer to live in public elderly apartments, the rent of which is flexibly charged as a percentage of household income. Although there is a large gap between the rich and the poor, most of the elderly can find a suitable apartment. The market can be roughly divided into three categories: the first is self-occupied apartments, designed for elderly people who can take care of themselves, developed and invested by real estate companies, and property-owned by elderly residents. The elderly need to buy or rent an apartment first and then pay for nursing expenses on a monthly basis. Since few services are provided, the monthly service fee is quite low. In the first-tier cities of China, such apartments have also sprouted, such as the shared property housing of Gonghejiayuan in Chaoyang District, Beijing. It is expected that this type of elderly community will continue to grow in the future. The second type is assisted apartments, accounting for the highest proportion. It is mainly designed for the elderly who need help in daily life but do not need professional medical care,

with government funding and low cost. The third type is the special care apartment, which provides comprehensive health services.

The “three-pillar” mode in the United States pension system is quite successful throughout the world. “Three-pillar” refers to the social security plan compulsorily promoted by the government, the pension plan with benefits funded by the government or employers, and personal savings and investment insurance (with tax incentives). Relevant data³ show that only when the total economic income after retirement reaches more than 70% of the total economic income before retirement can the quality of life after retirement be guaranteed, and the government security pension for ordinary citizens after retirement only reaches 40% of the preretirement income. Therefore, the remaining part must rely on private pension plans. Since basic insurance cannot meet general pension needs, the United States government actively guides and encourages enterprises and individuals to participate in employers’ pension insurance. The investment is led by enterprises, and the government provides tax reduction and exemption policies to fill the gap in basic pension insurance. Individual pension insurance is entirely privately built and funded for investment, its marketization is very mature, and mainstream pension institutions are private and profitable. The income of nursing homes is 80–90% privately paid, and most pension services are not in the insurable scope.

2 Development of the Pension Market in First- and Second-tier Cities of China

2.1 *Status Quo*

(1) Characteristics of the elderly group in first- and second-tier cities

The first- and second-tier cities represented by Beijing and Shanghai are relatively more developed, with richer social resources in education and culture and residents with higher education levels. The elderly group has the following three characteristics.

First, life is more secure. Currently, most elderly people rely on their children and government pensions to maintain their old age. The social security system in first- and second-tier cities is generally more complete, with a high endowment insurance coverage rate, and the source of income for pension groups is relatively secure. For example, the “Shanghai Elderly Service Development Report (White Paper)” published by the Shanghai Development Research Center shows that the total registered population of Shanghai is 14.3869 million, and the number of registered elderly people over 60 years old is 4,139,800, accounting for 28.8% of the total population.

³ Zhang Kaiti and Guo Ping, *American Pension*, China Social Sciences Press, 2010.

The number of elderly obtaining socialized pension grants in 2016 reached 4.219 million.⁴

Second, cultural life is more abundant. Benefiting from the abundant social resources of large cities, the entertainment options of the elderly are more diverse. Elderly people can participate not only in chorus, dance and other recreational activities but also in social activities through volunteer work in large-scale events. Elderly universities in large and medium-sized cities covering almost all districts and counties also provide opportunities for the elderly to learn musical instruments, calligraphy, and photography.⁵

Third, the elderly are more open-minded, although most people are still extremely attached to family. First- and second-tier cities have a high level of education. Elderly people are affected by the overall environment, receive more diversified information, are less bound by old concepts and are more willing to try new pension modes. However, the influence of local culture is still far-reaching, and the acceptance of institutional pensions is still very low compared to Europe and America. Take the empty-nest elderly surveyed in the affiliated community of Peking University as an example. Although they have a high level of education, 88.7% have no financial difficulties, and 72.1% feel unhappy due to physical illnesses, 75.4% of the elderly are still unwilling to accept the way of “staying in nursing homes, children visiting regularly, and picking up home on holidays”.⁶

(B) Development of the pension market and mode in first- and second-tier cities

As mentioned earlier, the current domestic pension mode is “9631”, that is, “96% family pension, 3% community pension, and 1% institutional pension.” The family pension for the elderly is the most traditional method. In the “4-2-1” family mode, family pension often requires assistance in socialized services. According to the results of the fourth sample survey on the living conditions of the elderly in urban and rural areas in China, in 2015, the top three items of family pension service demand for the elderly were home-based consultation, home housework and rehabilitation, and their proportions were 38.1, 12.1, 11.3%. The community pension allows the elderly to choose to purchase community services according to their own conditions and provide services such as short-term residential care and day care. This mode overlaps with the family pension in terms of scope and form, and both rely on the “community” platform. In the institutional pension mode, the elderly often have to leave their home and live in a certain area to be cared for by professionals. The main demand comes from disabled and semi-disabled elderly. In first- and second-tier cities, family pension occupy an absolute dominant position, and the acceptance of community and institution pension is higher than that of the whole country. Beijing

⁴ See the Trade and Foreign Economic Statistics Department of the National Bureau of Statistics of the People’s Republic of China, *China labor Statistics Yearbook*, China Statistics Press, 2018.

⁵ See Li Baoyuan, *2015/2016 Human-based Development Report: How to Provide for the Aged*, Economic Science Press, 2016.

⁶ See Tian Qinglai, “An Investigation on the Family Pension of the Empty-Nest Elderly at Peking University”, *China Journal of Gerontology*, 2014(34).

proposes to realize “9064” by 2020; Shanghai has set the target as “9073”, paying more attention to community pension.

After the release of the State Council’s Opinions on Accelerating the Development of the Elderly Service Industry in 2013, first- and second-tier cities accelerated the construction of pension institutions. According to the “2018 Social Service Statistics Quarterly Report (First Quarter)” of the Beijing Civil Affairs Bureau, Beijing has established a total of 651 service organizations for the elderly and the disabled, including 224 urban pension organizations and 41,000 beds in urban pension organizations. According to the “2016 Social Service Statistics Monthly Report (December)” issued by the Shanghai Civil Affairs Bureau, Shanghai has established 642 service organizations for the elderly and the disabled, including 428 urban pension organizations and nearly 70,000 beds in urban pension organizations. In the short term, supply exceeds demand. In the second-tier cities, taking Wuhan as an example, according to the statistics for the fourth quarter of 2017 released by the Wuhan Civil Affairs Bureau, as of the end of 2017, there were 188 service agencies for the elderly and the disabled, and the number of beds for the elderly and the disabled was 3.9 ten thousand.

2.2 Case Study—The Community-Family Pension Mode of Wuhan Baibuting

The Baibuting Community is located in Houhu New District, Jiang’an District, Wuhan City, Hubei Province. It won the first Award for Chinese Habitat Environment It in 2001. Within an area of 5 km² with accommodation of 160,000 people, in a comprehensive community that integrates applicable housing and low-rent housing for the general public, the historical development of Baibuting can be roughly divided into three stages: enterprise-led (1995–2000), government-led (2001–2005), and volunteer-led (2005–present),⁷ completing the transformation from an old community with fish ponds and ditches everywhere, with no access to water and electricity circuits and other municipal supporting facilities, to a sustainable and modern community. Now, Baibuting has an owner committee, community organization, property service office, and an innovative series of volunteer systems, with more than 100 characteristic volunteer teams and more than 40,000 volunteers, most of whom are responsible for serving and caring for the elderly; the residents’ committees are used as units to conduct service activities in the form of service teams. Meanwhile, the community has also established detailed information files of the elderly over 65 years old to provide a basis for paired services; on the other hand, Baibuting Property Management Co., Ltd. performs comprehensive community service functions, establishing a pension service platform, and equipping each elderly person with

⁷ See Wang Wei, Wang Ming, Lan Yuxin, “Leading and Commanding: Community Leadership in Community Cogovernance: A Case Study of Wuhan Baibuting Community”, *China Nonprofit Review*, 2017(1).

a push-to-talk mobile phone. When the elderly need help or emergent assistance, they can immediately get in touch with the service platform through the phone. The property management company, the characteristic volunteer team and more than 200 surrounding online businesses provide free or compensated services for the elderly.

Currently, Baibuting has four levels of pension institutions.⁸ The first level is the daycare system, which provides places for leisure activities such as TV and movie screening rooms and book reading rooms and helps to improve the establishment of health files and cooperation with community health service centers. The second level is the “mutual assistance and cooperation” and “living together” modes. With the coordination of the community, the elderly living alone separately can live in a certain household together and rent out redundant houses for new rental income. The third level is the full-care “nursing home”, which is equipped with a medical office, a library, a laundry room, a kitchen, an emergency call system, etc., to meet the needs of short-term care for the elderly. The fourth level is the elderly apartment, where ten services such as traditional Chinese medicine hospital, canteen, day and night response, senior college, and housekeeping are provided. The elderly can choose different services according to their specific needs.

However, the Baibuting mode still has some problems. First, it is mainly government-funded, which is relatively scarce, considering the increasing demand; the low consumption awareness of the elderly restricts the further development of pension services. Second, the quality of community service personnel needs to be improved. The trained volunteers are not as good as professional social workers, and it is difficult to retain high-quality talent with limited wages and a heavy workload. Third, the types of services are relatively singular and concentrated in day care, and professional medical care and psychological comfort services are few, which makes it difficult to meet the diverse needs of different groups of elderly people. Fourth, the evaluation system is mainly led by government departments or self-evaluated by service agencies so that the evaluation and service quality are not fully accurate.

3 Development of the Pension Market in Third- and Fourth-tier Cities

3.1 Status Quo

(1) Characteristics of the elderly group in third- and fourth-tier cities

Economically, basic pension insurance for urban employees is the first and most important pillar of pension security, and its total fund ratio with the two pillars of enterprise supplementary pension insurance and personal savings pension insurance

⁸ See Han Weixue, “The Establishment and Development of the Community Elderly Care Service System in Wuhan-Taking Baibuting Community as an Example”, *Legal Expo*, 2015(11).

is 87:9:4.⁹ The payment of pension insurance in third- and fourth-tier cities is usually related to occupation. The pension insurance participation rate of employees in state-owned enterprises is relatively high, and the basic pension insurance participation rate of employees in urban private enterprises and individual industrial and commercial households is relatively low. Provisions for pension reserves in third- and fourth-tier cities are uneven. In recent years, some resource-based cities have experienced a relatively sluggish economy, and families have limited spending on the elderly. Some elderly people cannot even afford nursing homes at ¥1500–2000.

Conceptually, the tradition of family pension in third- and fourth-tier cities is more ingrained. In some areas, the elderly and children are unwilling to accept new things. They are neither used to going to day care centers nor able they accept care from outsiders such as nurses. The result is often that disabled or semi-disabled elderly cannot receive professional care, and their children have a heavy burden. According to the *China Statistical Yearbook 2017*, the floating population was 245 million in 2016. Although the proportion of middle-aged and elderly people aged 45 and above is increasing year by year among the floating population and their family members, the highest is only 18.1%.¹⁰ This means that in third- and fourth-tier cities, most of the elderly did not migrate with the floating population or became left-behind elderly or empty-nest elderly. Therefore, the third- and fourth-tier elderly population has more urgent needs for services such as life care, spiritual comfort, and emergency medical treatment.

(B) Development of the pension market and modes in third- and fourth-tier cities

There are more than 200 third- and fourth-tier cities in China above prefecture-level cities. The cultural and economic strengths of various regions vary greatly and cannot be generalized. According to the *China Statistical Yearbook 2017*, Inner Mongolia and Zhejiang have 58.3 and 56.3 beds for the elderly, respectively, which is much higher than the national average of 31.6, while Xizang and Hainan have the lowest, with 14.2 and 18.0 beds, respectively.

Some large state-owned enterprises have a large number of local employees of the same age. The residences of employees and their families are concentrated in entrepreneurial buildings or welfare houses, which are conducive to community construction and work. Residents are familiar with each other, and it is easy to form close neighbor relationships. The enterprise also has the ability to set up professional pension institutions and provide them to employees at a more favorable price, such as the Datong Coal Industry in Shanxi. Public and private nursing homes often have very different situations. Public nursing homes have better facilities and services, and the occupancy rate is higher; the occupancy rate of the public nursing homes of Coal Group can reach more than 70%. Although some private nursing homes are cheaper,

⁹ See Wei Hualin and Jin Jianqiang, *General Trends in Elderly Care*, CITIC Publishing House, 2014.

¹⁰ See Lv Lidan, Duan Chengrong, Liu Tao, etc., “Analysis and Discussion of the Changes in the Scale of the Floating Population”, *Southern Population*, 2018(1).

they have poor basic conditions, large differences in medical insurance policies, poor management, and remote locations, making it difficult to attract elderly people who can afford. The occupancy rate is below 50%.¹¹

3.2 Case Study—The Virtual Nursing Home in Chengguan District, Lanzhou City, Gansu Province

The “virtual nursing home” is opposite to the physical nursing home, but it does not belong to the category of nursing homes. It is an innovative form of family pension service using modern science and technology, with characteristics of “government-committed, directional-entrusted, contract management, evaluation and fulfillment”. The virtual nursing home in Chengguan District was established in December 2009. Based on the virtual nursing home in Gusu District, Suzhou, it has been improved according to local conditions and supported by a network communication platform and service system under government guidance and financial subsidies. It provides rapid response, professional services and process supervision to various needs of the elderly, such as life care, daily escort, medical and health, and legal consultation for the elderly in the region, through service outlets all over the city and the combination of corporate operation, professional services and social volunteer services. In 2012, the number of elderly people who received services reached 27,000, cumulative services amounted to 100,000, absorbed 126 franchised service companies, built 6 neighborhood medical and nursing integration service centers, and 65 virtual pension restaurants. There are more than 150 service items in the four areas: daily care, medical care, spiritual comfort, and emergency assistance.¹²

This new type of pension has three significant advantages: first, small initial investment and easy operations. The “virtual nursing home” in Chengguan District invested only ¥2.571 million during the initial construction period to complete the preliminary work of equipment purchase, software development and information platform construction. It can be put into trial operation within 3 months and will work normally within one year. Second, it can save costs for the government and residents. Chengguan Virtual Nursing Home is a regular-level institution, and its main source of funding is government funding. As of 2012, the government has invested ¥20.62 million in subsidies, with an average annual subsidy of ¥763 per elderly, which is relatively low compared to traditional pension operating costs. If you choose to enter a private nursing home in Lanzhou, the monthly cost is between ¥1200–2000, the disabled and semi-disabled elderly need to charge ¥300–600 more for nursing care. Generally, the cost of enjoying the “virtual nursing home” can be

¹¹ See Chinese Society of Gerontology and Geriatrics, *Structural Reform of Elderly Care Service Supply Side: Research and Practice*, China Social Publishing House, 2017.

¹² See Li Lijun, “Research on the Local Practice and Path of the Socialization of Elderly Care Services—Based on the Case Comparison of Canglang Virtual Elderly Home and Chengguan Virtual Elderly Home”, *Journal of Gansu Administration Institute*, 2016(4).

controlled at approximately ¥200 per month. Third, it is easier to promote. On the one hand, virtual nursing home is not restricted by places and beds, and the number of elderly service personnel increases with the increase in registration; on the other hand, with the government in charge of supervision, promotion and corporate docking, the elderly will be more easily to accept this type of pension service emotionally.

At present, there are three factors restricting the development of this pension mode: first, financial constraints. Since the position of virtual nursing home is not confirmed, it cannot enjoy the preferential policies provided by the government. Second, lack of active participation from all sectors of society. The government can only play the role of a platform for coordinating organizations; it is easily constrained by the overall economic development level of the region, insufficient private capital and high cost pressure. Third, shortage of employees. Volunteer organizations are loose and the total number of social work employees is insufficient, and the ratio to service targets is 1:1142, which is far from adequate.

4 Reflections on Pension Modes in First- and Second-tier Cities and Third- and Fourth-tier Cities Based on International Experience

4.1 Reflections on International Experience

It should be noted that the aging transition period of Western developed countries is relatively long. From a mild aging population of 7% of the population to a deep aging population of 14%, Sweden took 85 years, the United States took 70 years, and the United Kingdom took 45 years; China is expected to enter a deeply aging society in 26 years (2000–2026), which is more similar to Japan in 1970–1995.¹³ However, China's population base is even larger, and it is about to face the explosive growth of the elderly population. The pension industry in the United States is highly commercialized, integrating the needs of real estate developers, REITs, operators, and residents of pension institutions. The first reason is that the well-developed REIT system and tax incentives have reduced the financing costs of pension institutions and attracted a large number of commercial institutions; second, most elderly people choose to enter professional pension institutions, which is easier to manage. In comparison, the Nursing Care Insurance Law System introduced by Japan in 1996 had met the needs of more than 90% of the elderly for family pension, which is more suitable for China's conditions. Nursing care insurance divides nursing care into 7 levels, providing refined services. However, Japan's Nursing Care Insurance Law clarifies that care users only need to pay 10% of the cost, and the government pays the other 90%. China's elderly is about to "blow out", and if the same system is

¹³ See Hou Yufeng, Liu Lingzhi, Wang Xin, "The Enlightenment of Japan's Aging Process and Countermeasures to China", *Journal of Architecture*, 2015(12).

adopted, it will pose great challenges to China's finances. We should learn from the structure of the Japanese system to ensure the quality of life of the elderly and, at the same time, the efficient business mode of the United States to reduce the national burden.

Compared with the mature pension modes in the United States and Japan, China lacks detailed laws and regulations and an evaluation system for pension service standards, which makes it impossible to compare the results of implementation. On the other hand, the unbalanced welfare subsidies for public, private and other forms of pension institutions result in low enthusiasm for private capital participation and fewer choices of pension services. Third, it is difficult to guarantee service quality for we are still in need of professional pension teams and related skills training systems. Fourth, the still relatively scarce medical resources in community are, difficult to meet the needs of the elderly. These are the problems facing by all cities of China. The development of the pension mode is a long process, from investigation and research to policy promulgation and implementation, and every city should continue to explore based on their local conditions.

4.2 Reflections on Pension Modes in First- and Second-tier Cities

Achievement cases in first- and second-tier cities have brought three revelations to home-based community pension. First, social forces have shown an important position, for example, in the case of Baibuting in Wuhan, the introduction of the power of property management companies and residents' volunteers, the promotion of mutual connection among neighbors, save manpower and promote cultural construction. It is difficult to maintain long-term stability as community pension centers often lack supervision and management, and the participation of social forces in "community autonomy" can help civil affairs departments carry out long-term and effective supervision. Second, community pension centers and community hospitals cooperate to establish health files for the elderly to track the health status of the elderly, which helps the community respond when the elderly need help and achieve "early detection and early treatment" in the long run, thereby reducing medical costs. Third, a well-established community equipped with diversified facilities can provide diversified services to meet the needs of housekeeping services, day care and short-term care.

It is also worth learning about Beijing's pension mode. Recently, Beijing has continuously increased its efforts to reform the supply side of pension services and introduced a number of policies to encourage pension institutions to organically integrate medical resources, such as nearby community health service centers and temporary hospitals. Beijing Sijiqing Nursing Home is such an example: the nursing home invites doctors from nearby hospitals for round-robin consultations, with a team of general practitioners providing regular consultations; meanwhile, it cooperates

with surrounding hospitals to explore a new integration mode of medical care and nursing care to give full play to the advantages of urban medical resources. During the 13th Five-Year Plan period, Beijing will complete the construction of 1,000 “Elderly Posts”, basically realizing the full coverage of family pension. On the other hand, Beijing took the lead in launching the first “centralized family pension community”, which organically integrates family pension and institution pension and specifically provides property-owned care services for the elderly aged 60 and above..

Other new trends have emerged in institution pension in first- and second-tier cities, such as “integration of medical service and elderly care”, “integration of medical service and insurance”, and “integration of tourism and health preservation”. In response to the requirements of the 19th National Congress of the Communist Party of China for “promoting the integration of medical service and elderly care and accelerating the development of aging careers and industries”, the Yanda International Health City in Yanjiao has been constructed, aiming at the health needs of the elderly and providing international medical services; “Taikang Home · Yanyuan” in Beijing, which is characterized by the integration of pension and insurance, is also rapidly deploying; “Taishen Xianghe” Villa in Beijing combines health preservation and tourism; and the farmhouse mode “ZheXianju” in Zhejiang is spreading rapidly across the country. However, some problems have also begun to emerge. The current positioning of pension institutions has a typical “two-headed” structure, focusing on high-end commercial services and subsidized low-end services and rendering most elderly people with middle-economic status no suitable choices. Another problem is that the overall occupancy rate is relatively low, after the stage of vigorously building pension institutions. As of the end of 2013, the average occupancy rate in Beijing was less than 47%, causing a significant waste of resources. However, with the advancement of information technology and the help of technological development, new changes may also appear in future pension modes, such as wearable devices that are used to track the health of the elderly and connect the elderly at home with communities and institutions through network information platforms, the “Internet + pension” that enable the elderly to receive more timely and considerate offline services. All these will better help and support the continuous evolution and development of the pension mode in first- and second-tier cities in China.

4.3 Reflections on Pension Modes in Third- and Fourth-tier Cities

The ranking of the China urban elderly care index¹⁴ released by the National Research Institute in 2017 reflected the urban elderly care load and security level, covering the demand-side indicators, namely, the total elderly population, the internal structures of the elderly population, the growth rate of the elderly population, and the dependency

¹⁴ China Urban Pension Index Blue Book 2017 research group, *China Urban Pension Index Blue Book 2017*. China Development Press, 2017.

ratio of the elderly population, as well as covering supply-side indicators, namely, government policies, capital investment, service levels, and ecological environment. Among the top 100 cities, East China accounts for 56%, Northwest China accounts for 12%, North China accounts for 11%, South China accounts for 9%, and Southwest, Central China, and Northeast China account for 5, 4, and 3%, respectively. It can be seen that pension security in East China is in an absolute leading position. The top ten are Xiamen in Fujian Province, Yiwu in Zhejiang Province, Karamay in Xinjiang Autonomous Region, Suzhou in Jiangsu Province, Kunshan in Nanjing Province, Shenzhen in Guangdong Province, Jiangyin in Jiangsu Province, Ningbo in Zhejiang Province, and Wenzhou in Zhejiang Province. The first- and second-tier cities account for only six seats. There are many third- and fourth-tier cities that have inherent advantages in the development of pension care.

We have selected three cities with the highest scores in the first- and second-tier and third- and fourth-tier, respectively, and the heat map is based on their pension index rankings, as shown in Fig. 2; among them, the darker the color indicates the higher the score/ranking, and the cities after 100 are uniformly indicated in white. It can be seen from the figures that the overall elderly care development advantages of East China and Northwest China are more obvious than those of other regions; although there are outstanding cities in the third- and fourth-tier cities such as Karamay and Yiwu, the development of pension care in the third- and fourth-tier cities in Northeast China, Central China and South China is obviously lagging behind first- and second-tier cities, and pension security needs to be improved. Due to funding policies, the loss of the labor force, and cultural influences in third- and fourth-tier cities, more people choose traditional home-based care, and the development of pension facilities is relatively slow, with greater development space and broader development space in the future.

Based on this situation, the government should strengthen its leading role and improve the management system. For example, under the “virtual nursing home” mode, the government should attract franchise companies, incorporate scattered elderly people into the platform, improve the quality of professionals and social volunteers, and coordinate various elements. In addition, elderly related departments need unified planning and coordination to maximize limited resources. Second, it is necessary to dig deeper into social resources, learn from the construction experience of first- and second-tier city owner committees and volunteer teams, such as the Baibuting mode in Wuhan, and fully mobilize community residents to participate in the maintenance of community construction and help the elderly. Third, it is necessary to publicize community and institution pension while developing family pension so that the elderly in need can choose the most suitable way of caring for themselves. The fourth is to attract nonprofit organizations and commercial organizations to further diversify, increase competition, and thereby improving the quality of pension services. On the other hand, third- and fourth-tier cities can fully convert their ecological advantages into economic advantages by establishing pension towns comparable to pension cities, building a characteristic pension leisure service industry based on their own characteristics, and relying on urban ecology and characteristic industrial

	Northwest	Northeast	North China	Central China	East China	South China	South west
Tier 1 and Tier 2 cities	Urumqi	Shenyang	Beijing	Changsha	Suzhou	Xiamen	Kunming
	Xi'an	Changchun	Shijiazhuang	Wuhan	Nanjing	Shenzhen	Chengdu
	Lanzhou	Dalian	Taiyuan	Zhengzhou	Ningbo	Guangzhou	Nanning
Tier 3 and 4 cities	Karamay	Xinmin	Tangshan	Ruzhou	Yiwu	Shishi	Shangri-La
	Yinchuan	Suifenh	Ordos	Shishou	Kunshan	Nan'an	Lhasa
	Xingping	Wudalianchi	Qian'an	Danjiangkou	Taicang	Quanzhou	Lushui

Fig. 2 Pension index in first- and second-tier and third- and fourth-tier cities

zones and support facilities such as health care and medical care and leisure business to meet the needs of the elderly for leisure and pension and at the same time promote employment and the economic growth potential.

5 Policy Recommendations

On the whole, China is facing five major problems, namely, a short transition period into an elderly society, a large elderly population, poor infrastructure conditions, large regional economic differences, and a weak social welfare system. Therefore, the upcoming aging society is still quite challenging. We believe that by coordinating upper-level policies and institutional arrangements, cultivating different regional pension market development paths according to local conditions, and actively encouraging market-oriented institutions to establish a large pension service network, we can help China meet the arrival of a “silver society”.

First, it is imperative to establish a unified pension security system for China’s urban pension, integrate medical, welfare, insurance and other systems involving various departments, clarify the functions of local governments and investigate management methods and the effect of capital investment measurement. Second, we must focus on the development of professional talent planning, not only to cultivate social service talent in colleges and universities but also to standardize the short-term training of volunteer teams to develop and establish a full-coverage, multi-echelon senior care service talent pool. In addition, in terms of talent training, it is necessary

to conduct key training for the actual needs of pension services in different regions. For example, in third- and fourth-tier cities, it is necessary to focus on the training of service personnel for family pension services, while in first- and second-tier cities, more specialized medical staff will increase the service ratio of institutional pensions.

On the other hand, we must also actively encourage social capital to participate in the pension industry, provide preferential taxation, operation, land use, etc., share the financial pressure of local governments, promote the balanced development of the industry, improve service efficiency and services through market-oriented operations, and focus on encouraging the nonpublic economy to develop the elderly consumer product market and derivative markets such as elderly financial management and the elderly education market. By comparing the pension market in first- and second-tier cities and third- and fourth-tier cities, we found that the demand for pensions in third- and fourth-tier cities is significantly differentiated. To be specific the supply of pension products is mainly low- and middle-end institutions that meet basic living care and nursing care. However, pension products with rich spiritual and cultural contents have not yet appeared. Therefore, in third- and fourth-tier cities, high-quality pension projects have great room for development.

The development of differentiated pension service modes according to local conditions is the development trend of urban pensions in China. The first-tier, second-tier, third- and fourth-tier cities should design different development patterns as the proportion of the elderly and family structure of different cities are quite different. Therefore, for cities where the overall age is relatively old and have more elderly living alone, it is necessary to focus on the development of a mode that shifts the elderly from family pension to community pension, using the community as a link, and enabling the elderly through response platforms such as information technology, to fully connect with the community and improve the service network. Third- and fourth-tier cities with tourism resources or natural resources should try to promote the rapid development of institution pension and leisure pension to meet the increasing elderly needs of various groups, while mainstream elderly families in first- and second-tier cities need to strengthen the quality and convenience of medical services and increase family pension services, so that the elderly can enjoy better medical services without leaving homes, and will not be troubled by the difficulties of seeing a doctor in large cities and by expensive medicines. At the same time, the further development of market-oriented institutions should be encouraged to meet the diverse needs of some elderly people.

General Secretary Xi Jinping emphasized that we must actively respond to the aging of the population and build a policy system and social environment for the elderly, pay filial piety, and respect to the elderly. On the one hand, it is necessary to speed up supply-side reforms and provide different pension services to meet the needs of different groups of people. According to the survey, 97% of the elderly want to spend their twilight years in their own homes, and their greatest wish is to be able to enjoy professional services such as life care, rehabilitation and physiotherapy, culture and entertainment at their doorstep. Faced with the huge demand for pension, we must actively leverage market forces to support and encourage social institutions

to fund and provide family pension services or learn from Beijing's mode of "government providing facilities free of charge and operators operating at low cost" to radiate multiple communities to provide appropriate family pension services. To meet the diversified needs of the elderly, a new mode of pension services featuring diversified development, professional operations, and refined services is in urgent need of construction. With the government's addition of nursing homes for the disabled and demented elderly and more support for towns and villages, policies such as the preferential construction of rural service facilities for the elderly have created better conditions.

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