Summary of Research on the Delayed Retirement Policy

Jiani Yang

School of Medical Humanities and Management, Wenzhou Medical University, Wenzhou, Zhejiang, 325000, China

Keywords: Delayed Retirement Policy, Pension System, Literature Review.

Abstract: Recent years, with the deepening global aging trend, China chose some policies of raising the retirement age to alleviate this problem. The research of this policy exists a certain number at present, but the core references among it have only one number of review of literature which is published in many years ago. So this article as the first review-type research after adopting the policy, will classify the literature before and after implementation of the policy and make a conclusion to fill the blank of this field. On the basis of research, it shows that raising the retirement age is beneficial to keep the pensions system and deal the problem of pension insurance fund and medical insurance fund, while it is limited in the level of alleviating financial stress. Additionally, this policy is also positive in term of population and employment, but it has an influence on human health.

1 INTRODUCTION

In recent years, with the deepening global aging trend, the majority of countries have strong financial stress and high public deficit. On the basis of *Allianz Global Pension Report 2020*, it shows that the baby boom generation is coming to an end and that the global social security system faces an enormous challenge (Allianz Group, 2020). China has already stepped in an aging society. On the basis of *Bulletin on the Development of National Aging Issues in 2023* from national administration for the elderly of the ministry of civil affairs of China, it shows there were 296.97 million people aged 60 and above in China, accounting for 21.1% of the total population; there were 216.76 million people aged 65 and above, accounting for 15.4% of the total population. The dependency ratio of people aged 65 and above was 22.5% at the end of 2023 (Ministry of Civil Affairs, 2024). On the basis of *Allianz Global Pension Report 2020*, it illustrates the rank of aging of China is 11th in the world and 1st in Asia (Allianz Group, 2020). What's more, the trend of aging in China will be more rapid, so pension insurance companies are facing serious stress of pension paying, and government as well as market economy environment, are facing extremely powerful impact. However, delayed retirement policy is positive to alleviate a series of economic problem and promote the second demographic dividend to alleviate the problem of labor lacking. That's why it is important for China. As early as 2013, China proposed that "Study and formulate policies to gradually raise the retirement age", also clear and to "Gradually raise the statutory retirement age in accordance with the principles of small adjustments, flexible implementation, classified promotion, and overall consideration" (The Central Committee of the Communist Party of China, 2013) (State Council, People's Republic of China, 2021). On September 13, 2024, at the 11th session of the Standing Committee of the 14th National People's Congress, the State Council deliberated a proposal on submitting a draft decision on implementing a gradual extension of the statutory retirement age, and decided to take effect on January 1, 2025 (Standing Committee of the National People's Congress, 2023). The policy of raising the retirement age of China mainly refers to social security, labor market and another public policy field. This policy will affect workers or the potential labor force of different sectors, especially on elder workers and someone who is about to enter the workforce. China has proposed to formulate gradual raising the retirement age policy in 2013. This policy experience more than 20 years from embryo to implement formally in China. Although there are many researchers in this field have done abundant researches, the review of literature is sparse. The number of review of literature in core references in China National Knowledge Infrastructure is only one. This article is *A Review of*

Research on the Policy of Gradual Delay of Retirement Age written by Wang Kexiang and Yu Lingyun in 2016 (Wang and Yu, 2016). Because this article was written earlier and the article after the policy officially retreated is lacking. So this article classifies relevant literature to discuss the contribution of this articles and show the shortages, expecting other researches will fill these blank of the field in the future.

2 RESEARCH METHOD AND PROCESS

This article mainly uses search engines such as CNKI, Web of Science and Pubmed to collect and sort literature. Specific steps are as follows: on the first step, this research initially search reference in the CNKI is mainly find Chinese reference and the first search keyword is "retirement". This study chooses core journals of Peking University and CSSCI journals as criterion, then it can bring into 4640 literature. On the second step, because of the surplus of the first search keyword, this research decides to accurate keyword. So the second search keyword is "raising the retirement", the search engine and journal inclusion criterion are unchanged. Then it can bring into 803 literature. On the third step, this study refines the keyword again to narrow the study. The third search keyword is "raising the retirement age policy", the search engine and journal inclusion criteria are unchanged. Then it can bring into 202 literature. On the fourth step, this research selects these 202 literature by use "Cited more than 100" and "Top 10 downloads" as the criteria. Then it can gain a total of 14 Chinese literature at last. On the fifth step, this study selects the literature of the last three years with the same keyword. The inclusion criterion is "The published period is after 2022, including 2022" and "Cited more than 15" and "Download more than 6000". Then it can gain 8 literature. On the sixth step, based on the time of China delayed retirement policy formally adopting, this research collects literature which published after September 13th, 2024. The keyword, search engine and journal inclusion criteria are unchanged. Then it can bring into 7 literature. Because the *Prospective Analysis of the Mechanism and Policy Effects of Delayed Retirement* is already bringing into this research in the fifth step, it will not be accounted in this step. On the seventh step, this study uses a keyword as "raise the retirement age" to search in the Web of Science and Pubmed. It can gain 1697 literature. Next, it brings into these literature by use SCI journals and SSCI journals as the criterion,

that it can screen out the reference of exploring the delayed retirement policy as the main content. So it can gain 6 literature. On the eighth step, after preliminary reading of Chinese literature, this study collects references citing more than 3 and relating to delayed retirement. It can totally add 6 literature. On the ninth step, after detailed reading for all adopted documents, deleting related documents which aren't major in raising the retirement age and the documents of non-empirical research and the documents of review. Totally deleting 22 documents. The remaining documents include 13 Chinese documents and 6 English documents.

3 SUMMARY OF RESEARCH ON THE DELAYED RETIREMENT POLICY

"Raising the retirement age", as a terminology, its concept was put forward at the end of the 19th century in Germany and its purpose is to alleviate the aging and pension stress. The almost of Western developed countries stepped into the aging society earlier, so that their research for raising the retirement age has deeper development. They put forward "flexible retirement mechanism," "progressive reform," and other ideas for the first time. They also explored the advantages and disadvantages of various policy models through experiments. The research in China is later than in other countries. The earliest research of raising the retirement age in China came from Dong Tingjie. *The "6050" retirement age line is a "string" that wants to be broken*, in 2007. It indicated that the policy of flexible retirement was a feasible way that suits China's national conditions for Chinese aging (Dong, 2007). Followed by Shao Guodong, Yang Jing, Zhou Hui, Zheng Chunrong, Zhang Yi and other scholars' researches for the feasibility of delayed retirement in China (Shao, 2008; Yang, 2010; Zheng and Liu, 2011; Zhang, 2011). After that, the research of raising the retirement age developed quickly, and it peaked between 2015 and 2017 and then leveled off. On the whole, the researches in China began with talent studies and labor science, macroeconomic management and sustainable development, insurance, and etc related subject horizons, most of them chose overlap of generations, intertemporal iteration model, actuarial model, dynamic population forecasting methods, and other ways. They also adopted the method of combining qualitative and quantitative analysis for researches in delayed retirement policy. The related policies were

divided into relevant studies before formal adoption and the latest studies after formal adoption by the time when the policies were formally adopted. It also divided studies before policies' formal using by the impact of the policies' aims in detail. Finally, from all perspectives, sorting related studies.

3.1 Researches Before the Policy Adopted

3.1.1 From the Perspective of Pension System

In the field of delayed retirement, the academic research community largely discusses the relationship between raising the retirement age and pension system. Some scholars think delayed retirement is beneficial to pension system sustainability, whereas it is limited to alleviating financial stress. In the early reformation, the effect of contribution years and the effect of the duration of receiving benefits occupied the leading status to improve the pension income and expenses condition. With the effect of substitution rate and differential effect strengthened gradually, it will impact to the result of raising the retirement age policy (Zhang, 2011). What's more, raising the retirement age can only reduce 25-28 periods of financial subsidies of personal pension accounts. After that time, the government's stress will rise continuously (Zeng et al., 2013). Male pension paying is main stress among future pension payers. But the deficit of the pension insurance fund can be alleviated by moderately raising the increasing rate of females (especially female cadres) retirement age (Shi, 2022). Another researcher also demonstrates the drawback of the delayed retirement policy. They think that delaying the time of receiving pension welfare can sometimes add retired group's pension wealth, whereas it can also lead to the effect of diminishing benefits, which will be strengthened with the extension of retirement age (Liu, 2013). But in general terms, implementing the delayed retirement policy as early as possible is better than raising the retirement age rate in the pension expenses burden (Shi, 2022). Moreover, raising the retirement age is effective in extending the years of working to ensure the financial sustainability of the pension system (Nivalainen, 2023). Additionally, moderately raising the retirement age can increase pension income. The rolling retirement age adjustment plan that raises the retirement age by several months each year is more beneficial than a one-step change plan of retirement age in the term of pension system sound development (Hu et al., 2023).

3.1.2 From the Perspective of Demography and Employment

Different scholars have different perspectives in the relationship of the delayed retirement policy and demography research, so it generates various theories. Taking the demographic dividend as the entry point, the study finds that delayed retirement can't form the second demographic dividend. However, incorporating the improvement of average life expectancy into the economic development indicator system can keep the human expectancy of lifetime. So it is positive to rise the saving rate and capital accumulation to form the second demographic dividend (Geng and sun, 2017). Taking the labor market as the entry point, research finds that delayed retirement affects the path of intergenerational income transfer degree within a family, with the help of economic factors. So it generates the substitution effect of quality and quantity during family childbirth. Parent's concern extent of children's quality and quantity will impact the growth in labor supply in different ways (Guo and Yan, 2016). Additionally, raising the retirement age policy will generate various benefits in various stages. In the short term, the policy decides on to optimal delayed retirement plan. Plan with a buffer period and slow walk can reduce the variability of labor market in the reform process to lower the welfare loss of the approaching retirement age group. In the long term, raising the retirement age is conducive to improving output. Based on the reduction of social security contributions can help policy decision-makers to expediently adjust to the basic pension insurance replacement rate (Qiu et al., 2020). Taking the employment rate as the entry point, the study finds that delayed retirement raises the employment rate and the influence on females is stronger than on males. Employment rate growth is the most obvious influence on high salaries and healthy employees. Low salaries and unhealthy employees often early retire by disability benefits or through the unemployment insurance to fill the blank from the increase in the legal retirement age. Moreover, reformation generates the obvious overflow in the unemployment insurance terms, but the impact on disability insurance application can be disregarded (Staubli and Zweimüller, 2013).

3.1.3 From the Perspective of Insurance Fund

Insurance fund reserve is also an important field when scholars discuss the delayed retirement influence.

Raising the retirement age (especially for female) can effectively solve the aging and alleviate the deficit of the pension insurance fund. With the gradual adjustment and supporting measures helping, it can guarantee the fund sustainability and alleviate the stress of companies as well as workers (Cong, 2009). Enhancing the level of overall planning will help to adjust the short-term income and expenses balance of pension insurance fund. Choosing the combination of gradually raising the retirement age could help the policy to have better result (Zeng and Lu, 2023). What's more, delayed retirement policy not only affects the pension insurance fund, but also improve the sustainability of the employee medical insurance fund. However, it can't keep the income and expenses balance of the employee medical insurance fund for a long time (Zeng et al., 2021).

3.1.4 From the Perspective of Human Health

International research on delayed retirement policy have extended to the human health field. Some researchers indicate this policy is positive to male to increase regular exercise to adapt more years of working by researching a series of pension reform policies in Italy. So it contributes to solve the obesity and enhance the degree of satisfaction with oneself (Bertoni et al., 2018). Meanwhile, this policy has some disadvantages. There is a study finding that raising the retirement age suddenly may cause harm to vulnerable female workers and increase the number of hospitalizations and getting sickness. It will also make some workers unemployed or receive disability pensions (Serrano-Alarcón et al., 2023). However, these shortcomings have a certain extent. If reformation offered adequate time to adapt the variety for affected people, potential adverse health consequences will be minimized (Ci, 2022).

3.2 Researches After the Policy Was Adopted

The 14th National People's Congress Standing Committee's 11th meeting adopted the decision to implement the gradual postponement of the legal retirement age on September 13th, 2024. This decision had a significant impact on the research of China's delayed retirement policy and drove the studies from researching whether to implement or not to researching how to implement and its results. Therefore, this article classify the literature published after the policy was adopted.

3.2.1 From the Perspective of Affected People's Psychology

After the delayed retirement policy was adopted, the masses have various points to it. The attitude of the masses has an important effect on the policy's successful implementation. So researchers do a series of researches on it. The study use Python data mining and NLP technique, analyzing text sentiment, combining visualization techniques such as word clouds to excavate the masses' emotional attitude, hot spots, suggestions and requests. Research shows the public totally positive or neutral attitude and the public opinion situation possesses a feature of "diverse discussion subjects, deepened discussion level, rapid-spreaded secondary issues, rationality-trended social mentality" (Sun, 2025). As the key group of delayed retirement effecting, workers' intended retirement age is evidently higher than actual retirement age. The income and intended retirement age show an "U-shaped" relationship, which is first reduced and then increased. While the actual retirement age shows an adverse tendency. Additionally, the actual retirement age is related to the workplace. Employees of government agencies and public institutions have lower sensitivity to a variety of salaries (Ma and Zhu, 2024).

3.2.2 From the Perspective of Policy Factors

The latest research on delayed retirement policy hasn't presented a new perspective research. Most of the studies on this field have the same key direction, it still around the economic factors. Some researchers build general analytical frameworks and actuarial models to demonstrate that delayed retirement policy will strengthen fund sustainability, evidently during the 15 published years. But the benefits can't last a long time, it will appear a tendency of first increasing and followed reducing over the next 30 years. It hardly changes the financial stress fundamentally. Although it introduced the flexible retirement system, the result still hasn't shown an obvious change (Chen et al., 2025).

4 SHORTAGES AND SUGGESTIONS

4.1 Shortages

There are some disadvantages to the studies. To begin with, the research direction in China has a high degree of homogeneity, most scholars prefer studying

financial problems and the width as well as depth of their studies are insufficient. What' more, the subsequent power of the Chinese related studies in raising the retirement age isn't enough so that it appears most documents which were quoted highly lack of timeliness, and there are not many new documents. Secondly, the abroad documents are more mature but they lack of innovation and prefer traditional perspectives, lacking of awareness of the use of online data, Blockchain technology and other new technologies. Thirdly, due to the diverse impacts of raising the retirement age policy, some scholars didn't consider relevant factors totally when they were conducting hypothetical reasoning. Besides, the discussion, which is based on the assumption of a "rational person" caused the difference between conclusion and reality so that the accuracy of the conclusion isn't enough. Finally, most of the present studies focus on particular groups, lacking of the coverage the general groups, and the capacity of samples is small, so that the conclusion's scope of application is limited and can't be easily.

4.2 Suggestions

4.2.1 Innovate the Multidisciplinary Integration and Technology

In the first place, researchers should emphasize the innovation of multidisciplinary integration and technology to expand the breadth and depth of the delayed retirement policy research. The policy refers to various subjects, such as economy, sociology, psychology, so multidisciplinary integration research is helpful to consider more factors for researchers. It can improve the persuasiveness of research results. Additionally, the utilization of internet big data and Blockchain technology is conducive to capturing more accurate information to improve the precision of results. Therefore, future studies need to break the disciplinary barriers and build an interdisciplinary cooperation framework. By the way, it will be better to advocate for the innovation of research techniques and apply the advanced technology to improve the research accuracy. In this way, it can provide many scientific and feasible suggestions for policy decision-makers.

4.2.2 Strengthen the Precision of the Research Design

In the second place, researchers should strengthen the precision of the research design to improve the empirical study's reliability. There are various factors

in the delayed retirement policy, including endogenous variables and exogenous variables. The comprehensive considerations help researchers to control variables reasonably to improve the precision. Therefore, researchers need to build a multilevel and classified-grouped research framework. Moreover, they should clarify the boundary conditions of the research hypothesis and the inclusion criteria of research samples. They could also choose the way of combining qualitative and quantitative research approaches.

4.2.3 Build a Dynamic Feedback Mechanism

In the third place, it can build a dynamic feedback mechanism with "policy-research-policy" to promote the coordinated development of theory and practice. Among the studies of delayed retirement policy, some researchers based on the rational man supposition to make the discussion. It leads to some differences between research results and reality. If researchers used the real-time monitoring of policy effect, they would find the shortcomings in their studies. Thus, they could rebuild or improve studies to draw a conclusion that is more in line with the actual situation. Then it could improve the policy adjustment and implementation by applying the scientific conclusions. In this way, it can form a closed-loop system with "problem identification-research and analysis, policy optimization, and effect feedback". It not only promotes the social value of study results, but also enhance the science and adaptability of policy formulation.

5 CONCLUSION

According to the reviewing and sorting for the related documents of raising the retirement age, researchers considered it from diverse perspectives and their studies have covered many domains. The scholars from abroad or China made different perspectives studies by diverse models and ways in the sustainability of pensions, manpower supply, health and etc, which were caused by raising the retirement age. Their studies provide a theoretical basis and scientific advice for carrying out the policy, and they also contribute to the relevant departments improving the policy. So far, the studies on raising the retirement age in China have developed from zero to discussing and publishing, so that it has changed a lot in studies of this domain. The studies in China have discussed its feasibility of appealing to the method of studies to studying sustainable documents. Besides, there are

some new ways of studies such as online databases from Chinese scholars to explore the domain with a new perspective and combined with domain and new technology. It promoted the innovation of the studies. In other countries that stepped into the aging society earlier, their studies in raising the retirement age also began earlier. Their studies not only include the policy and its relevant factors, but also develop the research in actions of human. Their wide studies domain and abundant practice experience can offer some good experience for other countries.

REFERENCES

Allianz Group. 2020. Allianz Global Pension Report 2020. Munich: Allianz SE. https://www.allianz.com/en/economic_research/insights/publications/specials_fmo/28052020_Pension_Report.html.

Bertoni, M, Brunello, G, Mazzarella, G. 2018. Does postponing minimum retirement age improve healthy behaviors before retirement? Evidence from middle-aged Italian workers. *J Health Econ*. 58:215-227.

Chen, X, Yang, Z, Zhu, G. 2025. Flexible Retirement Preferences and China's Social Pension Fund Sustainability under the Delayed Retirement Policy. *Insurance Studies* (01):81-97.

Ci, Z. 2022. Does raising retirement age lead to a healthier transition to retirement? Evidence from the U.S. Social Security Amendments of 1983. *Health Econ*. 31(10):2229-2243.

Cong, C. 2009. Analysis of the impact of extending retirement age on the gap of pension insurance fund. *China Development Observation* (12):20-23.

Dong, T. 2007. The "6050" retirement age line is a "string" that wants to be broken. *Social Sciences Diges* (04):16-20.

Geng, Z, Sun, Q. 2017. Population Aging, Delaying Retirement Age and the Secondary Demographic Dividend. *Journal of Financial Research* (01):52-68.

Guo, K, Yan, S. 2016. Delaying retirement age, intergenerational income transfer and labor supply growth. *Economic Research Journal* 51(06):128-142.

Hu, J., Stauvermann, P.-J., Nepal, S., Zhou, Y. 2023. Can the Policy of Increasing Retirement Age Raise Pension Revenue in China—A Case Study of Anhui Province. *Int. J. Environ. Res. Public Health* 2013, 20, 1096.

Liu, W. 2013. Does Late Retirement Surely Damage the Retired Interest? An Investigation on the Pension Wealth of Various Retirement Ages of Urban Employees. *Economic Review* (04):27-36.

Ma, S, Zhu, H. 2024. The Influence of Income on Retirement Decisions: A Comparison of Actual and Intended Retirement Age. *South China Population* 39(06):25-37.

Ministry of Civil Affairs, National Working Committee on Aging. 2024. National Report on the Development of

Aging Affairs in 2023. Beijing: Ministry of Civil Affairs of the People's Republic of China.https://www.mca.gov.cn/n152/n165/c16620049 9980001752/content.html.

Nivalainen, S. 2023. Retirement Intentions and Increase in Statutory Retirement Age: 2017 Pension Reform and Intended Retirement Age in Finland. *Journal of Aging & Social Policy* 36(5), 1115–1136.

Qiu, M, Wang, T, Liang, R. 2020. Raising Retirement Age, Human Capital Accumulation and Fiscal Balance of Pension. *Economic Research Journal* 55(09):122-137.

Serrano-Alarcón, M, Ardito, C, Leombruni, R, Kentikelenis, A, d'Errico, A, Odone, A, Costa, G, Stuckler, D; IWGRH. 2023. Health and labor market effects of an unanticipated rise in retirement age. Evidence from the 2012 Italian pension reform. *Health Econ*. 32(12):2745-2767.

Shao, G. 2008. A Study on the Rationality of Postponing Retirement Age Based on the Theory of Life Cycle. Renmin University of China.

Shi, C. 2022. Delayed Retirement Age, Population Dependency Ratio and Sustainability of the Pension Insurance Funds. *Contemporary Economic Management* 44(06):68-76.

Standing Committee of the National People's Congress. 2023. Decision on Implementing a gradual Extension of the Statutory Retirement Age. Beijing: Standing Committee of the National People's Congress.https://www.gov.cn/yaowen/liebiao/202409/content_6974294.htm.

State Council, People's Republic of China. 2021. The 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Outline of the Vision Goals for 2035. Beijing: People's Publishing House. http://www.ndrc.gov.cn/xxgk/zcfb/ghwb/202103/t20210323_1270124.html.

Staubli, S, Zweimüller, J. 2013. Does Raising the Early Retirement Age Increase Employment of Older Workers? *J Public Econ*.

Sun, Y. 2025. The Evolution Pattern, Mechanism and Governance Strategy of Online Public Opinion on the Delayed Retirement Policy—Based on NLP Analysis of Online Big Data. *Journal of Hohai University (Philosophy and Social Sciences)* 27(01):77-89.

The Central Committee of the Communist Party of China. 2013. Decision on Some Major Issues Concerning Comprehensively Deepening Reform. Beijing: The Central Committee of the Communist Party of China. https://www.gov.cn/jrzg/2013-11/15/content_2528179.htm.

Wang, K, Yu, L. 2016. A Research Summary on the Policy of Postponing the Retirement Age Progressive Way. *Population & Economics* (01): 57-65.

Yang, J. 2010. The Design Scheme and Feasibility of Implementing a Flexible Retirement System in China. Southwestern University of Finance and Economics.

Zeng, Y, Li, S, Zhang, R, Xu, Y. 2021. Outpatient Mutual Assistance Reform, Gradual Delay of Retirement Age and Sustainability of Medical Insurance Fund for Urban

Employees—A simulation analysis based on multiple scenarios. *Insurance Studies* (04):91-105.

Zeng, Y, Lu, Y. 2023. National Pooling of Pension Insurance, Progressively Delaying the Retirement Age and Fund Sustainability. *The Theory and Practice of Finance and Economics* 44(01):19-25.

Zeng, Y, Ren, C, Tang, X. 2013. Will Postponing the Retirement Age Decrease the Public Subsidy of Individual Account Pension?. *Journal of Quantitative & Technological Economics* 30(12):81-96+157.

Zhang, Y. 2011. The postponement of Retirement Age and Payment Balance of Pension Plan: Mechanisms and Policy Effects. *Journal of Finance and Economics* 37(07):4-16.

Zheng, C, Liu, H. 2011. The Design of China's Flexible Retirement Age Rules. *Population Journal* (03):61-69.

Zhou, H. 2011. Analysis and suggestion on limiting factors of delaying retirement age in China. A*cademic Exchange* (02):136-140.