

Optimizing Public Transfer Payments to Promote Public Health after Delaying Retirement

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Abstract: With increasing global life expectancy and declining birth rates, population aging has become a critical issue for many countries, including China, which is considering delaying the retirement age to ease pension system pressures. However, delaying retirement may affect the health and welfare of older adults. Public transfer payments play a vital role in promoting social equity and maintaining the health of the elderly. This paper explores how optimizing public transfer payments can better promote public health after delaying retirement. The research highlights the complex relationship between delayed retirement and health, examining both positive and negative effects. It further discusses the impact of public transfer payments, such as pensions, medical subsidies, and unemployment benefits, on labor supply and health outcomes. Moreover, the study explores the implications of extending retirement age on fiscal policies and international best practices for optimizing public transfer payments. The findings suggest that optimizing these payments can enhance both health and economic well-being, with future research needed to evaluate the implementation of delayed retirement policies and their broader effects on health equity.

Keywords: Public Transfer Payments; Delayed Retirement, Public Health; Pension Systems, Social Welfare; Healthcare Equity; Economic Impact; Aging Population; Health Insurance; And Labor Supply

1. Introduction

With increasing life expectancy and declining birth rates, global population aging has become an increasingly severe issue. Many countries, including China, are considering delaying

retirement age to address the financial pressures on pension systems. However, extending the retirement age may have profound effects on the health and welfare of older adults. Public transfer payments, as an important tool for the government to regulate income distribution and promote social equity, play a vital role in maintaining the health of older adults. Therefore, exploring how to optimize public transfer payments to better promote public health after delaying retirement is of significant theoretical and practical importance.

2. Health, Health Insurance, and Retirement analysis

The impact of delaying retirement on the health of older adults is a complex issue. On one hand, research by Li et al. (2021) found that delayed retirement is associated with better physical function and cognitive status in older adults. Based on data from the China Health and Retirement Longitudinal Study (CHARLS)[1], they discovered that, after controlling for potential self-selection bias and prior experiences of delayed retirement, there was a correlation between delayed retirement and better physical function and cognitive status. This suggests that older adults who delay retirement may benefit from the social engagement and moderate physical activity gained through work, which may slow down the age-related decline in physical and cognitive abilities.

However, delayed retirement may also negatively affect health. Yuan, Zhang, and Li (2022) found that while both delayed retirement and working multiple jobs can alleviate depression in older adults, combining the two may place an excessive burden on them, increasing their psychological stress. They argue that with increased working years and intensity, older adults may face greater work demands,

and holding multiple jobs may lead to role conflicts and time pressure, thereby negatively impacting mental health.

French and Jones (2017) reviewed the economic literature on the link between health and retirement in developed countries, noting that individuals in poor health tend to retire earlier, but the extent of health's impact on retirement varies by country and over time[2]. Institutional factors such as public pension plans and disability insurance play a significant role in explaining cross-national differences in retirement patterns. The research also indicates that declining health only accounts for a small portion of the drop in employment rates around retirement age. Gorry, Gorry, and Slavov (2018) explored the effects of retirement on health and life satisfaction, using data from the U.S[3]. Health and Retirement Study (HRS). They found that retirement had a positive impact on self-rated health, mental health, and life satisfaction, but had no significant effect on healthcare utilization and even reduced it in some cases. These studies suggest that the impact of retirement on health is complex, with both positive and negative effects, and that the effects of delayed retirement may differ from those of retirement itself.

3. Impact of Public Transfer Payments on Labor Supply analysis

Zhou et al. (2024) focused on China and examined the impact of public transfer payments on labor supply[4]. They found that family-oriented public transfer payments increased household members' labor supply, particularly among women, young people, and those with lower education levels. They suggest that public transfer payments can improve health, thereby increasing labor supply, indirectly indicating that unemployment benefits and social security payments can alleviate economic pressure, reduce mental health problems, and thus improve health conditions.

4. Factors Influencing Health Beyond Pensions analysis

Public transfer payments are not limited to pensions; they also include forms like medical subsidies, unemployment benefits, and social security payments. These forms of transfer payments are considered important environmental factors in both the Grossman Health Demand Model and the Andersen Health

Behavior Model. Public transfer payments can affect health in several ways, such as:

Medical subsidies: Li and Huang (2022) assessed the impact of public transfer payments on the healthcare vulnerability of rural households in China, finding that these payments can improve the situation, especially considering the differing healthcare needs of rural households. This suggests that medical subsidies can directly enhance access to healthcare services, thereby improving the health of older adults[5].

Unemployment benefits and social security payments: Zhou et al. (2024) found that family-oriented public transfer payments increased labor supply among household members, particularly among women, young people, and those with lower education. They suggest that public transfer payments can alleviate economic pressure and improve mental health, thus improving health conditions.

Other transfer payments: Public transfer payments can also impact health through other means, such as housing subsidies improving living conditions, food subsidies improving nutrition, and education subsidies enhancing health literacy, all of which have positive effects on health.

5. The Impact of Extending Retirement on Public Transfer Payments analysis

Extending retirement age may have a significant impact on the distribution of public transfer payments. On the one hand, delaying retirement could reduce the number of people receiving pensions and increase the number of people contributing to pension funds, thus alleviating the financial pressure on pension systems. On the other hand, older adults who continue working during the delayed retirement period may reduce their reliance on other forms of public transfer payments, such as medical subsidies and social security benefits.

Pension Replacement Rates and Social Welfare: Research by Yu Wenguang, Guan Guofeng, and Qiao Zhi (2024) found that both delayed retirement and deferred tax policies can increase the pension replacement rate and social welfare, with the effects of the delayed retirement policy being more significant[6]. Their study, based on an overlapping-generations model that includes both pay-as-you-go and fully funded components, quantitatively examined the effects of delayed retirement and deferred tax policies

on the pension replacement rate and social welfare, considering the issue of under-reporting contributions. The conclusion was that the delayed retirement policy has a more substantial effect on improving the pension replacement rate and social welfare compared to the deferred tax policy.

Fiscal Impact: Extending the retirement age will also have fiscal implications for the government. Research by Yu Wenguang, He Wei, and Huang Yujuan (2024) found that delaying retirement can significantly reduce pension shortfalls[7]. However, the effective implementation of this policy requires supportive incentive policies, such as tax reductions or allowing early access to a portion of pensions. While these incentive policies may increase fiscal expenditure, they can be offset by increasing the labor force participation rate among older adults. Additionally, Yīn Shùguāng (2015) pointed out that the delayed retirement policy will impact both the revenue and expenditure of pension funds and may positively affect the per capita income of urban residents[8].

6. Optimization of Public Transfer Payments After Extending Retirement in Other Countries analysis

Many countries have taken steps to optimize public transfer payments after extending the retirement age to better promote public health:

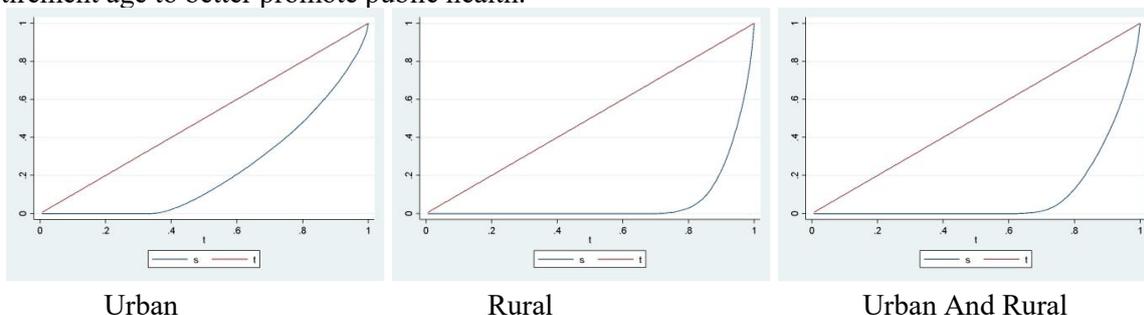


Figure 1. Lawrence Curve of Health Equity in Relation to Income

According to the decomposition results of Lawrence curve, the health inequality in rural areas is greater than that in urban areas. There was no significant change after the rural areas joined the urban areas, indicating that the health inequality in the rural areas accounted for a large weight of the overall population. This suggests that the area of residence has a greater impact on health inequalities. This may be due to the higher level of health inequality caused by greater regional income disparities.

Do a further breakdown of the health equity

United States: Gradually increased the age for receiving full social security benefits and offered incentives for workers who delay retirement, such as higher pension benefits.

Japan: Provided tax breaks and financial subsidies to companies that employ older workers and offered more vocational training and employment opportunities for older adults.

European Countries: Research by Axelrad (2018) [9]analyzed the factors influencing retirement age in 20 European countries. In addition to personal factors, national-level factors such as GDP, unemployment rate, and pension expenditure significantly influence retirement age. Some European countries have adopted flexible retirement systems, allowing individuals to choose their retirement age within a certain range and offering different pension benefits based on the chosen retirement age. Additionally, some countries have promoted public health among older adults by providing healthcare services, long-term care, and social support.

7. Fairness in Public Transfer Payments Analysis

A breakdown of the Lawrence curve of health equity in relation to income was made based on the CHARLS survey data, as shown in the figure1 below.

Lawrence curve in relation to education, as shown below. The results show that there is little difference in health inequality between rural and urban areas. There was no significant change after the rural area joined the urban area. This suggests that the influence of education variables on health inequalities is small relative to income, and that the influence of regional differences on health inequalities is significant. That health inequalities are caused by educational attainment, not by geographical outcomes.

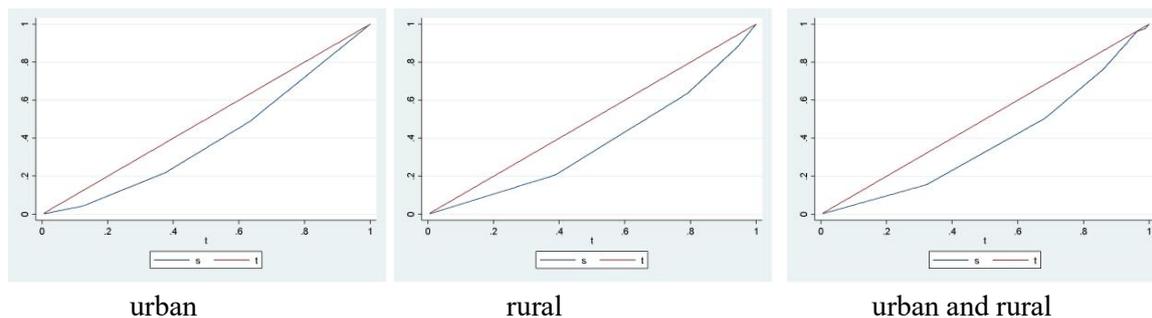


Figure 2. Health Equity Lawrence Curve in Relation to Education

Fairness in public transfer payments is another important issue. Different groups may have different needs for public transfer payments after the retirement age is extended. For example, low-income groups and older adults in poorer health may require more medical subsidies and social security benefits. Therefore, when optimizing public transfer payments, the needs of different groups should be considered to ensure fairness and avoid exacerbating social inequality. Jia Minxue (2024) found that under the current pension system, there is gender inequality [10]. The delayed retirement policy can alleviate this inequality to some extent. Using a micro-simulation method, they analyzed the impact of the current system and eight different delayed retirement policy designs on individual pension benefits. Using the Oaxaca-RIF decomposition method, they found significant gender inequality and discrimination in pension benefits under the current system, primarily determined by factors unrelated to personal characteristics. Compared to other policy designs, a flexible delayed retirement system with a stepwise reward-punishment mechanism was more effective in alleviating gender inequality and discrimination, promoting gender equality in pension benefits. Holzmann (2024) also emphasized the role of public transfer payments in protecting vulnerable groups, arguing that a "zero-pillar" pension (i.e., a basic pension for low-income groups) is crucial and that the design and implementation of the system must be careful to ensure fairness and effectiveness.

8. Conclusion and Future Outlook

Optimizing public transfer payments to promote public health after extending the retirement age is a complex yet important research topic. Future research should focus on evaluating the impact of China's delayed retirement policy on the health and welfare of different groups, assessing

the effectiveness of various public transfer payment programs, and drawing on international experience to design more effective incentive policies that promote the health and well-being of older adults.

9. Research Directions

Study the actual implementation effects of the delayed retirement policy, including its impact on the health of different groups, labor supply, and the balance of pension revenue and expenditure, providing a basis for further policy improvement.

Investigate how public transfer payments affect the equity of healthcare financing, especially after extending the retirement age, and whether different groups have equal access to healthcare. Evaluate the effectiveness of specific public transfer payment programs (such as medical subsidies and pension insurance) after extending the retirement age and explore ways to improve the efficiency and fairness of these programs.

Explore how the demand for public transfer payments among different socioeconomic groups changes after delayed retirement and how transfer payments can be adjusted to meet these changing needs.

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