

Research on the Solutions to the Chinese Labor Shortage Caused by Population Aging

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Abstract: China is facing the serious problem of population aging, and the labor shortage caused by population aging will also impact the future Chinese labor market. This paper uses the research method of literature review to compare the policies adopted by countries with severe aging, and then seeks a population policy suitable for China's aging. Labor mobility and multiple birth policies are not suitable for China's current national conditions. Based on China's current national conditions, the Chinese government can implement the two policies of extending the retirement period and training the elderly labor force, especially technological innovation, to further help China effectively solve the problem of population aging.

Keywords: labor shortage, aging population, labor mobility, technological innovation

1. Introduction

Since the beginning of the 21st century, the aging of China's population has become increasingly serious. The aging of the population has brought many negative impacts on China's economy and society, the most obvious of which is the labor shortage. At present, China is vigorously implementing the new birth policy, that is improve the labor shortage caused by the aging of the population by encouraging birth. Due to certain flaws in this policy, the state is also trying to make up for the labor shortage through other means, such as extending the retirement policies and vigorously developing technological innovation. However, these policies need to be considered in actual implementation, as their effects are two-sided.

Therefore, in face of new challenges that may be brought about by an aging population in the future, the government should seek more reasonable solutions that is in line with China's national conditions. This article will analyze and compare the policies of other countries to alleviate population aging through qualitative analysis and comparison. On the basis of combining China's national conditions, this paper puts forward the population-related policies suitable for China.

2. Policy Analysis

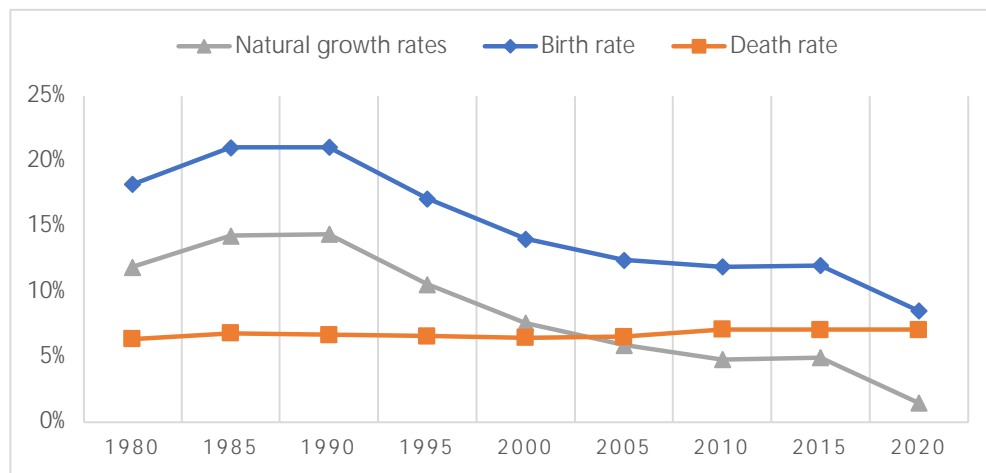
This research aims to address the labor shortage caused by China's aging population. The research of this article mostly adopts the method of literature review by comparing the current policies of other countries to deal with labor shortages. On the basis of combining China's actual conditions, the author

analyze the feasibility of other countries' policies in China. Since the data in the literature are relatively less disturbed in the process of comparison, a large number of literature analysis can be used to find out the policies suitable for China to solve the labor shortage caused by the aging population. This paper divides these policies into two categories: improving quantity, (e.g., extending retirement age), and improving quality (e.g., training the elderly workforce and technological innovation). However, labor migration and multiple birth policies do not apply to China. Using these feasible policies, the application of feasible policies applicable to China's development can effectively improve the labor shortage problems caused by the aging population in China. It can be promoted economic growth and social progress after satisfying the needs of the labor market.

2.1. Multiple Birth Policy

The development history of China proves that the multiple-child policy is not feasible in China, as it will not effectively alleviate the problem of population aging but will aggravate China's population aging. Contrasted with the aggravation of social problems caused by the aging of the population is the decline in the birth rate. According to the "China Statistical Yearbook 2021" released by the National Bureau of Statistics, the birth rate of China has dropped by 1% in 2020, and the birth rate is only 0.852%, making it the country with the lowest birth rate in the world in the past 43 years [10].

Table 1: China's birth rate, death rate and natural growth rate from 1980 to 2020.



Since the implementation of the two-child policy, the number of newborns has declined for four consecutive years, from 17.86 million in 2016 to 12 million in 2020 [11]. The reasons for this problem can be roughly divided into two categories. The first point is that China's maternity welfare system is flawed with other countries. China has canceled extended maternity and marriage leave to encourage more births. Other countries have welfare systems that are more pro-fertile. For example, Sweden has adopted policies that subsidize childcare and raise women's incomes to encourage higher birth rates [1]. Additionally, Germany expanded public nursery clothing and increased postpartum safety to encourage women to have children [2].

The second point is that China's current multiple-child policy has its own limitations. Whether it is analyzed from a current or historical perspective, it can be inferred that the two-child policy cannot effectively increase the birth rate. As of 2015, 1.85 million couples had applied for a second child, but only 16.8% met the criteria for the second child policy. In addition, China tried a two-child policy

in 1970, which ultimately failed. China's birth rate has not increased as a result [3]. The two-child policy has many drawbacks even under the premise of an effective increase in the birth rate.

As the number of births continues to increase, the growth trend of population aging will not change, but will only slow down. In the long run, the multiple-child policy is ineffective, because the two-child policy may inversely exacerbate population aging [4][5]. In this case, instead of improving the current problem, it exacerbates the status quo of the problem.

2.2. Extend Retirement Age and Train Older Workforce and Technology Innovation Policies

Policies to extend retirement age and train older workforce are feasible. Extending retirement age can effectively increase the number of labor forces and make up for the needs of the labor market. However, the education level of China's older workforce is low. The report on the development of the quality of life of the elderly in China released in 2019 pointed out that the educational level of the elderly in China is generally low, and the proportion of the elderly who have never attended school or only attended primary school is the highest. About 30% (29.6%) of Chinese seniors have never attended school, about 40% (41.5%) have primary school education, about 1/4 (25.8%) have junior high school and high school education, and only 1/4 (25.8%) have junior high school education and above. 3.1% [12]. There is a direct relationship between the educational level of the elderly labor force and the quality of the labor force. The older workforce lacks some modern skills, especially digital skills, and these factors limit their reemployment. The nation needs to train its older workforce in basic digital skills to adapt and meet the demands of the modern labor market.

China also can adopt a policy of technological innovation, which also applies to China. Since the reform and opening, China has attached great importance to investment in high-tech industries [6]. China has continuously increased its investment in high-tech industries and is eager to develop high-tech industries by investing a large amount of R&D funds in this industry [7]. Robots can replace those retired old laborers. Robots have higher labor productivity and can produce more and better-quality products at the same time. Therefore, technological innovation policies can make up for labor shortages and meet the needs of the labor market.

2.3. Labour Immigration Policy

The labor immigration policy implemented in Europe is not feasible in China. Due to China's large population base and strict immigration policies, this policy cannot be implemented in China.

First, if China adopts foreign immigrants to meet the labor shortage, then China will inevitably face the situation of increasing the total population. Overpopulation can have negative effects on a country's economy such as lower per capita income and lower per capita GNP. It may also lead to a prominent contradiction between increasing labor employment and increasing labor productivity [8]. Second, China does not have the conditions to accept immigrants. China's immigration policy is stricter than the EU's immigration policy. The EU's role as a flow platform for migrants is a condition for the smooth implementation of this policy in Europe [9]. However, China does not have this condition and therefore this policy does not work in China.

Faced with the problem of labor shortage caused by population aging, the government proposes that extending the retirement age, training the elderly labor force and technological innovation can effectively alleviate the labor shortage problem. In addition, the potential of the labor force can be tapped to further optimize the allocation of the labor force. For example, a business or institution that can manufacture redundancy. The surplus is pushed into labor-scarce sectors, feeling up labor activity. Optimize the labor allocation can avoid redundant enterprises or institutions, and the surplus labor is pushed to labor-scarce departments to release labor.

3. Conclusion

China's current population aging situation is very serious. The aging population is hurting labor shortage in the labor market. In order to make up for the need for labor shortages, this article aims to find policies and programs that can be implemented in China. By analyzing and researching the literature, it is concluded that delaying retirement, training the elderly labor force and technological innovation are solutions that can effectively meet China's labor demand. However, whether it is the two-child policy implemented in China or the labor immigration policy implemented in Europe, there are certain drawbacks. The study of these feasible options in this paper mainly focused on the research on solve the problem of the quantity and quality of the labor force. However, the best way to make up for labor demand is to focus on improving the quality of the workforce.

Balancing the quantity and quality of the workforce is the key to coming up with a viable solution to compensate for labor market shortages caused by an aging population.

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