

A Research on Population Structure and Economic Development

Luyi Zhu

Sino Canada, Suzhou, Jiangsu,
215200, China

diaosipan@ldy.edu.rs

Abstract:

Sustainable economic development is one of the key issues today. There are many factors affecting the development of the economy. Among all the causes, population structure is one of the most significant factors affecting economic development. However, the population structure changes hinder the sustainable economy's development. Therefore, more and more people pay attention to population structure. Nowadays, most of the countries in the world are facing population aging, population mobility issues, or some other population problems. The paper will analyze the impact of population structure on economic development first. Furthermore, the paper will provide reasonable solutions to the corresponding problems through specific examples. Population Aging is one of the most serious population structure problems. For sustainable development, governments need to control the proportion of the elderly. Population Mobility is a quite common phenomenon. With the trend of population mobility, economic development is also changing. To improve the average economic level of all the cities, the governments need to formulate policies to attract comprehensive population mobility, rather than one-way mobility.

Keywords: population structure, economic development

1. Introduction

After the COVID-19, the global economic development has been severely affected. Consequently, sustainable economic development received attention from all over the world. As the base of high-quality life, the development of the economy is especially important. More and more professors have found diverse factors affecting development.

The U.S. Census Bureau, the world population will be close to 8.02 billion on January 1, 2024 [1]. In the whole world, population aging is one of the most se-

rious problems affecting economic development. Not only does it bring the loss of the labor force, but also increases the demand for elderly care. These phenomena have greatly increased the burden on young people. Many researchers have proposed different solutions to the problem of population aging. According to a related research of P de Beer labor migration is a common way to alleviate the impacts population aging brings [2]. However, this is not an effective solution which only works for wealthy societies.

In addition to aging, population mobility is also hav-

ing a profound impact on economic development, especially in China. According to research on the relationship between the Chinese population and economic growth by Chen the trend of population mobility is huge mobility scale and concentrated mobility areas, which has had a profound impact on the economic development of China and even the world [3]. Many people from poor areas choose to go to first-tier cities to get jobs which can help those people get higher salaries and a better quality of life. Therefore, cities with already good economic development have gained a large number of labor forces, and the consumer market has further expanded. All these have greatly contributed to economic development. Cities that have lost a large amount of labor force have a huge gap in economic development compared to other cities. Given the complexity of these issues, the paper will provide effective methods to prevent on-way mobility.

The paper will use visualization Analysis to analyze the problems, impacts, and feasible and effective solutions brought about by different population structures. After it, the paper will compare diverse situations and give practical suggestions.

2. Introduction, Impact, and Solutions to Population Aging

2.1 Specific Data on Population Aging (Taking China as an Example)

Internationally, the standard for a country to enter population aging is having a population over 60 years old exceeding 10% or a population over 65 years old exceeding 7%. In 2018, 249.49 million people in China were over 60 years old. The population aged 60 and above accounted for 17.9% of the total population in China. This year, the population aged 60 and above has surpassed the population aged 0-15 for the first time. In 2023, there were 296.97 million Chinese who were more than 60 years old and accounted for 21.1%. By comparing these two sets of data, it can be seen that the data of population demonstrates an upward trend which means population aging is becoming increasingly severe. Population aging has already been an obstacle to economic development (Table 1). According to the research of Liv. did together, Population aging represents a change in the demographic structure of China and affects economic development [4].

Table 1. The worsening degree of population aging in China

	Total population(billion)	Numbers of people >60 years old(billion)	Proportion
2004	12.9988	1.4000	11%
2009	13.3474	1.6714	12.5%
2014	13.6782	2.1200	15.5%
2019	14.0005	2.5388	18.1%
2023	14.0967	2.9697	21.1%

2.2 Negative Economic Impact of Population Aging

The research of Yang demonstrates population aging will inevitably have a counterproductive effect both on the economy and society as an inevitable result of the continuous development of the economy and society. Based on comprehensive domestic and international research, the impact of population aging on economic and social development cannot be ignored [5]. It leads to challenges such as a reduction in labor supply, an impact on the foundation of economic growth, an increase in demand for elderly care, and social and family burdens it brings opportunities such as forcing industrial transformation and upgrading and exploring new consumer markets. With the more and more serious situation, the younger generation has a great burden, which is a huge obstacle to economic development. The decline in purchasing power among

young people has had an impact on the consumer market. Moreover, most people choose to enjoy their retirement. Therefore, countries lose huge figures for labor to develop the economy.

2.3 Positive Economic Impact of Population Aging

However, there are still some good things about population aging. Nowadays, advanced medical services help extend the human lifespan, and the vast majority of people are very concerned about their health. Therefore, elderly people purchase many health products. Even if they have physical problems, they will choose treatment. Because of the situation, the medical industry is developing rapidly, and people's consumption in the medical field is also increasing. In 2020, the overall medical expenses in China showed an increasing trend. The total revenue of the Na-

tional Basic Medical Insurance Fund including maternity insurance) reached 2484.6 billion yuan, an increase of 1.7% over the previous year. At the same time, the total national health expenditure was 7230.64 billion yuan, of which government expenditure was approximately 2199.83 billion yuan, and social health expenditure was 3025.28 billion yuan, with personal expenses of 2005.53 billion yuan. Moreover, With the increasing population aged 60 and above, the demand for elderly products is growing, which has driven the economic development of related goods, such as tools for assisting standing. According to research by Li and Qi, in the new social background, the design of auxiliary standing products for the older generation becomes more and more significant [6]. The design of auxiliary products is intended to care for the elderly, to help facilitate their life as much as possible, so that the elderly can better integrate into society. These products designed specifically for the elderly are very convenient to use, and because young and middle-aged people do not have enough time, more and more elderly people are buying these products. According to a study of Liu demonstrates the core industry of old-age care has a strong driving effect on the national economy. The elderly care expansion industry has slowly moved towards marketization. Moreover, the pension industry in most cities in China does not have the optimal industrial scale [7]. As a consequence, the elderly industry still has a very large consumer market and will certainly be of great help to economic development. Population aging not only brings the problems of economic development but also helps the development of the economy.

2.4 Obstacles and Solutions Faced by Population Aging

For the sustainable development of the economy, the government can adjust the population structure by encouraging the birth of newborns through subsidy policies. According to research of the new birth rate by Xu, since the 1960s, in addition to China, the declining birth rate in lots of countries has attracted public attention and government concern. Since the 1980s, the total fertility rate index in most countries has reached the standard level of the replacement which has spread rapidly [8]. The birth rate of newborns is a very complex issue with many factors directly affecting it: level of life quality, personal income, family income, etc. With changes in the employment situation and other factors, more and more people are unable to find good jobs. Raising children is not the scope of consideration for the younger generation. To increase the birth rate of newborns, the government must take effective measures. The most practical method is providing

economic subsidies to families with newborns. When life is guaranteed, people will consider whether they need a child.

3. Introduction, Impact, and Solutions to Population Mobility

3.1 Background of Population Mobility (Take China for Example)

According to a study by Liu and Niu In China's economically developed coastal regions, there is relatively balanced development among cities, with significant drivers of mobility being advanced manufacturing and producer service industries, In inland regions of China, city size is the most influential variable which helps direct a substantial flow of human and economic resources towards regional socioeconomic hubs such as provincial capitals [9]. In China, population mobility is a very common thing. For instance, the cross-regional population mobility of Chinese people will exceed 60 billion in 2023. All these people not only bring more intimate relationships between different cities but also make a great contribution to economic development. In the existing research, many scholars through empirical analysis. According to the research of Tao and Kong, through theoretical discussion, some studies focus on the positive impact of population flow on urban economic growth and point out that population flow promotes resource allocation, innovation, and market expansion [10]. Therefore, we need to pay attention to the trend of population mobility and make adjustments to the economy. For a better life, people always go to first-tier or second-tier cities. Therefore, Economic development has different consequences for cities that lose population and for cities that gain large numbers of people. According to a study by Feng, the total effect of net population inflow on the national level and the economic development of the eastern region is negative. However, the total effect on the economic development of the central and western regions is positive [11].

3.2 The Positive Impact of Population Mobility on Economic Development

According to research, Wang demonstrates population is one of the most vital factors and resources for the development of the economy and society. Population flow is closely related to regional economic development. After the reform and opening up, the eastern coastal areas gave priority to development, and China's population flowed on a large scale "from west to east and from north to south [12]. In recent years, the birth rate and natural growth rate

of the population in our country continue to decline. In the new population situation, population, especially talent, has become an important resource for all regions to compete for, and the flow of population has also appeared a new trend of returning to the central and western capital cities.” Due to population mobility, different regions have produced different outcomes. Most people choose high levels of life quality, such as Shanghai, Beijing, and Guangzhou. These mobile populations have brought countless laborers and expanded the consumer market. Not only does it directly drive the development of the city, but it also circumstantially drives the economic development of the city. According to the impact of population mobility on high-quality regional economic development labor mobility significantly promotes the improvement of regional innovation capabilities [13]. Taking Shanghai as an example, 24.8745 million people were living in Shanghai in 2023. Among all the people, only 14.6963 million people had registered residence in Shanghai, the other 10.0626 million people came from other cities.

3.3 The Negative Impact of Population Mobility on Economic Development

However, for cities with severe population loss, their economic development will be severely impacted. Without enough labor, the speed of economic development will slow down. When the economic development of a city regresses, more and more people choose to work and live in cities with good economic development. Over time, this will form a vicious cycle. Therefore, population structure is quite crucial to the development of the economy.

3.4 Solutions Faced by Population Mobility

3.4.1 Status Quo

At present, most of the world is facing serious population aging and migration. There are still some methods to solve the problem which are practical.

3.4.2 Solutions of Subsidies and Policies

According to the research by Qiu, Gu, and Wang, Governments should deep reasonably reform the registered residence system and guide rational population mobility and encourage the free movement of people from different regions to further unleash development vitality. Moreover, it is quite vital to break the pattern of “each region acting independently” in population mobility management, grasp the new trend of population mobility, and guide the formation of a good mobility trend in the eastern, central, and western regions. As a result, governments need to hold population mobility. The government can formulate subsidies and policies to encourage people to move across

the country, rather than a one-way flow.

3.4.3 Solutions about The Direction of Development

For sustainable economic development, existing industries Should be upgraded to attract the lost population. According to the research by Yang, Huang, and Wang, “Recently, the population loss in Northeast China is relatively serious, so it is necessary and meaningful to focus on industrial transformation and upgrading which can help revitalize the Northeast economy and make human resources gradually return, to promote the development of the Northeast economy. The key to retaining human resources lies in the development of local industries by local conditions and the acceleration of industrial transformation and upgrading. At the same time, we should pay attention to the promotion of urbanization level, to improve the overall resource allocation and the local population return to form a virtuous circle [14].

4. Conclusion

For this paper, the author analyzes the current population structure conditions and the issue of population structure has been raised. Population aging and population mobility are the two main problems affecting economic development. Through visualization analysis, it is more clear and straightforward to find the trend of the changes in population structure. With the trend, countries can formulate policies in advance to adjust the population structure and help economic development to the greatest extent degree. Population aging brings both negative and positive impacts on economic development. When a large number of people enter retirement life, society will lose a significant amount of labor force and be unable to drive economic development. With the increasing demand for elderly care, the life pressure of young people has become greater. Most people would choose to lower their quality of life. The speed of economic development is gradually decreasing. The demand for elderly products has increased, and the rapid opening of the elderly consumer market has driven economic development. To achieve sustainable economic development, the government must control the proportion of elderly people. Improving the birth rate of newborns is the best way. Population mobility is another huge problem. The urban economy, which has gained a large amount of labor, has developed rapidly, and various consumer markets have also been expanded. However, cities with severe population loss have slower economic development and are even regressing. To improve this phenomenon, the government needs to grasp the trend of population mobility and make adjustments. Cities with severe population loss can avoid falling into a vicious cy-

cle by developing local characteristic industries to attract displaced people back to their hometowns.

References

- [1] The U.S. Census Bureau estimates that the world's population will be nearly 8.02 billion on New Year's Day 2024. *Health for All*, 2024, (01):8.
- [2] Pual de Beer. *Journal European View*. 2024, 23(1), 47-54.
- [3] Chanming Chen. The relationship between population structure and economic growth in China under the background of aging. *Journal of Dongbei University of Finance and Economics*, 2022, (03): 76-86.
- [4] Jinhai Li, Jialing He, Xinrui Jiang. The impact of population flow on the high-quality development of regional economy. *Times Economic & Trade*, 2019, 21(08): 10-13.
- [5] Jinyin Yang. Impact of population aging on economic growth and coping strategies. *Journal. International Journal of Mathematics and Systems Science*. 2023, 6, (6).
- [6] Zhen LI, Boyuan Qi. Impact of aging population on economic and social development in the new era and countermeasures: A case study of Yancheng City, Jiangsu Province. *China Market*, 2024, (22): 1-7.
- [7] Chang Liu. Research on Design of assisted standing Products for the elderly. Tianjin University of Science and Technology, 2017.
- [8] Fan Xu. Research on the economic effect of the development of China's pension industry. Wuhan University, 2023.
- [9] Sihan Liu, Xinyi Niu. Spatial relationship of inter-city population movement and socio-economic determinants: a case study in china using multiscale geographically weighted regression. *Journal. ISPRS International Journal of Geo-Information*. 2024, 13(4): 129.
- [10] Min Na Tao, Lingju Kong. The impact of population flow on urban economy. *Wealth Today*, 2023, (22):8-10.
- [11] Yu Feng. Study on the impact of population flow on regional economic development and its spatial spillover effect. Hunan University, 2023.
- Zhikai Wang. The new trend of population mobility and the coordinated development of regional economy. *People's Forum*, 2023, (08): 54-59.
- [13] Bin Qiu, Chenguang Gu, Zibei Wang, et al. Digital economy. Population mobility and high-quality economic development. *Statistics and Decision*, 2023, 39(20): 17-22.
- [14] Bo Yang, Zhuo Huang, Binglun Wang. Analysis on economic factors of population mobility in China [J]. *China Market*, 2021, (15):39-40.