The Impact of the New Characteristics of Chinese Labor Resources Changes on Its Economic Growth

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Keywords: Economic Growth, Labor Resource, Impact Study

Abstract: The free flow of labor is the fundamental guarantee for the effective allocation of resources, productivity and economic growth. In the absence of the employment security system, labor mobility may lead to a decline in employment security, inhibition of productivity and economic growth. This paper uses the data of 31 provinces, municipalities and autonomous regions in China from 2000 to 2006 to estimate the scale of labor mobility in the region, construct relevant indicators, and empirically test the comprehensive impact of labor mobility on regional economic growth. Research shows that labor mobility has a positive impact on economic growth in the next period, but has a negative impact on economic growth in the current period. The impact of employment security and labor market tension is not significant. To this end, the full free flow of labor should be promoted under the premise of establishing a moderate social security system to promote the sustainable development of the regional economy and social harmony.

1. Introduction

Since the reform and opening up, China's economy has achieved rapid and steady development, but in the process of sustained economic development, it is accompanied by the imbalance of regional economic development. Cities such as Beijing, Shanghai, and Guangzhou have taken the lead in developing their economies because of their unique geographical advantages, support from national policies, and the ability to seize investment opportunities. Compared with these eastern regions, the central and western regions are due to their geographic location. Economic resource development is relatively backward due to factors such as resource endowment and industrial structure. In this context, the economic gap between the central region, the western region and the eastern region has gradually widened. In order to better develop itself and attract high wages in the eastern region, a large amount of labor in the central and western regions has flowed into the eastern developed regions. According to the fifth census data in 2000, the total number of floating population in 2000 was 1. 2.1 billion people, by 2010, according to the sixth census data, the total floating population in 2010 was 2. 2.1 billion people. Such large-scale population movements will inevitably bring about many economic and social effects. For the eastern region, a large amount of labor mobility can accelerate the flow of factors, so that resources can be better configured to improve economic development efficiency, but On the other hand, the continuous flow of labor into the eastern region will increase social pressure, increase the government's pension burden, and cause a series of social problems such as traffic congestion and insufficient public goods services. For the central and western regions, a large number of labor outflows It will cause the industry to languish, the lack of economic development, the lack of old-age care for the elderly, and the lack of love for children.

2. Characteristics and Causes of the Change of Total Labor Resources and Structure in China

In 1982, China's total labor resources were 50,454,670, accounting for 50.26% of the total population; in 1990, the total labor resources reached 755,415,400, an increase of 249,968,700 over 1982, with a growth rate of 49.54%. The average annual growth rate is 5.16%. Under the inertia of population growth, the population born during the second birth of China in 1962-1971 just entered the working age with the passage of time, making China's population and working-age population

  DOI: 10.25236/ermbfe.2019.034

in this period. The average annual growth rate reached the fastest level in history, and the proportion of labor resources to the total population also increased by 16 percentage points compared with 1982. In 1976, the promotion of family planning policy in the country made the total population growth of China drop to 0.95% during 1990-2000, and the growth rate of labor resources also slowed down. In 2000, the labor resources increased by 11 529,200,000 compared with 1990. The rate is 15.28%, with an average annual growth rate of 1.43%, but the proportion of the total population continues to rise to 70%. From 2000 to 2010, China's total population and labor resources continued to grow at a low rate. The total population of the “Six Pu” increased by only 910.187 million compared with the “Five Pu”, with an average annual growth rate of 0.7%. The birth boom has continued to grow by 12,275.05 million, but the average annual growth rate continues to drop to the lowest level ever of 1.33%. Although the ratio of labor resources to the total population has continued to grow, it has reached 74.47% in 2010. However, under the dual effects of accelerated population aging and declining fertility rate, China’s labor resources are still facing a lack of growth in the future. The challenge of structural aging.

Table 1 China's total labor resources and growth rate from 1982 to 2010 (10,000 people, %)

Year					labor force Resource share Total population
	Scale	Average annual growth rate	Scale	Average annual growth rate	
1982	100391.39	/	50454.67	/	50.26
1990	113051.06	1.50	75451.54	5.16	66.74
2000	124261.22	0.95	86981.06	1.43	70.00
2010	133281.09	0.70	99256.11	1.33	74.47

According to the life cycle theory of labor supply, this paper analyzes the working age population in three groups, that is, 15-24 years old is the youth labor force, 25-44 years old is the strong labor force, and 45-64 years old is the old labor force. Analysis of the age composition data of labor resources in the 3rd to 6th census found that the age composition of labor resources in China was the youngest period since the founding of the People's Republic of China. The 15-24-year-old youth labor force and the 25-44-year-old labor force accounted for respectively. The main reason for labor resources is 32.59% and 44.82%, the main reason is that the population born in the peak of the previous two births has entered the labor age queue. With the implementation of the family planning policy, its role has become clear in 2000. At this time, the youth labor force of 15-24 years old has decreased by about 10 percentage points compared with 1990, and the labor force of 25-44 years old has begun to rise, which is higher than that of 1990. 5.22%. In 1999, China entered an aging society and its aging degree gradually deepened. Its influence on the age structure of labor resources was particularly prominent. In 2010, the proportion of labor force in the 25-44 years old was only 44.42%, and the proportion of young and middle-aged labor to the total labor resources. A total of 67.32%, the lowest in history.

Table 2 China's age structure of labor resources from 1982 to 2010 (%)

Age Group	1982	1990	2000	2010
Total	100	100	100	100
15-24	17.22	32.59	22.72	22.90
25-44	53.15	44.82	50.05	44.42
45-64	29.63	22.58	27.24	32.68

3. Future development trend of labor resources in China

In 2010, the total labor resources reached 993 million people, accounting for 73.86% of the total population. In 2015, it began to experience negative growth, which can be roughly divided into three stages: the slow growth phase in 2010-2015, the slow decline phase in 2015-2025, and 2025-The rapid decline phase in 2050. The total labor resources will reach a peak of around 1 billion in 2015. In the first five years of the slow decline in 2015-2025, the average annual reduction was 1.59

million, faster than the second five-year average of 1.17 million. It began to decline rapidly in 2025, with an average annual decrease of 6.02 million and the largest decline in 2035, reaching 11.56 million. In 2038, the total labor resources fell below 900 million, and in 2020 and 2050, they were 883 million and 829 million respectively. The proportion of the country's labor resources to the total population is also declining. In 2020, the proportion of labor resources to the total population is less than 70%, starting from 60% in 2040 and as low as 57.7% in 2050.

Table 3 Changes in the total amount and proportion of labor resources in China in the future

Year	2010	2015	2020	2025	2030	2035	2040	2045	2050
Total(10k)	99256	99942	99148	98564	96600	92533	88262	85798	82882
Chief accountant Port gravity (%)	3.86	71.68	69.17	67.67	65.67	62.68	59.94	58.79	57.7

The total labor force and proportion of young people aged 15-24 have shown a decreasing trend, but the process is first to reduce and then increase and then decline slightly and maintain a stable fluctuation process. Specifically, 2010-2020 is a period of rapid decline, with the lowest proportion in 2015, only 15.52%, 2020-2035 is a slow recovery phase, 2035-2050 is a stable maintenance phase, and in 2013 it is 17.33%, compared to 2010. The year was reduced by 5.6 percentage points. The total labor force of the 25-44-year-old is in a continuous decline. In 2050, the total scale was 320 million, a decrease of 120 million from 2010, and an average annual decrease of 3.03 million. In particular, the 25 years before 2035 dropped at an average annual rate of 4.49 million. From the perspective of the proportion of labor resources, it is generally a decreasing trend, but it has experienced a process of slowing down first and then slowly rising. The inflection point is located in 2035 (35.52%), before falling at a rate of 0.36%, and then only 0.2%. The slow recovery was 38.58% in 2050, 3.06% higher than in 2035, and 5.84% lower than in 2010. The size and proportion of the 45-64-year-old elderly labor force continues to rise. In 2050, the total amount reached 365 million, accounting for two-fifths of the labor resources, an increase of 41.13 million over 2010, and 33 out of 100 laborers. The above workforce has grown to 44 people. In 2040, the proportion reached a maximum of 46.35% and then decreased slightly. Continued to use the labor aging index, which was 71.86% in 2020, 77.81% in 2030, and 86.4% in 2040, which is twice as high as in 2010, indicating that the aging of labor resources in China will intensify in the future.

4. The impact of labor resources on economic growth

Economic growth generally refers to the growth of the capacity of goods and services produced by a country or region over a certain period of time. Mainly bound by capital, labor, technical level represented by productivity and institutional factors. Therefore, when studying the economic growth of a country or region, the labor factor is a core factor that cannot be ignored. According to the basic model of Solow's economic growth Y(t)=F[A(t)K(t), L(t)], this paper draws on Zheng Junjun and other economic growth based on the proportion of working-age population to the total population and the aging factors of labor. The model analyzes the historical changes of labor resources and the impact of future development trends on economic growth. The specific models are as follows: where z is the per capita output, A is the technical level of exogenous variables, and λ is the older labor force over 45 years old. The share, θ is the ratio of the labor productivity of the elderly labor to the productivity of the young and middle-aged labor, η is the share of labor resources in the total population, and δ, g, n are exogenous parameters, which represent the depreciation rate, technological progress rate and population growth rate, respectively. Represents the share of total output for physical capital accumulation and human capital accumulation, respectively. According to the model, the technical level A, the physical capital stock Sk, the human capital stock SI and the labor resources in the total population share η have a positive effect on economic growth. When the technological progress rate g and the depreciation δ remain unchanged, the population growth rate is on the economy. Growth has a negative effect. λ is the proportion of the elderly labor force over 45 years old to the total labor resources, that is, the aging of labor has a negative impact on economic growth. Based on the results of the model, we can further discuss the

possible impact of total labor resources, share, and age composition of labor resources on economic growth.

From the perspective of total output, assuming that the technical level and capital input remain the same, and that the labor participation rate of the working-age population and the age structure of the labor force remain unchanged, the total output level is determined by the amount of labor input. The more labor resources there are 15-64 years old, the more total output. The greater the share of labor resources in the total population, the smaller the total social dependency ratio and the higher the contribution to per capita output. Throughout the history of China's reform and opening up more than 30 years, it is not difficult to find that the average speed of China's economic growth has remained at around 9.91%, and the demographic dividend period brought about by sufficient labor resources has met the huge economic development of the labor force. Demand has made tremendous contributions to the rapid development of China's economy. As mentioned above, China's labor resources grew rapidly in the 1980s and 1990s. The working-age population accounted for more than 70% of the total population. The average economic growth rate during this period was 10.45%, which is a golden period of China's economic growth. Since 2000, the total amount of labor resources in China has been increasing, but the growth rate has slowed down a lot. In particular, China has entered an aging society in 1999 and its aging is deepening. In addition, the fertility rate continues to decline and the total labor resources decrease. Although China’s economic growth rate has remained at 9.9%, it has started to decline compared with the previous period. It is predicted that the total number of working-age population will start to decrease after reaching a maximum of about 1 billion in 2015. There is no doubt that the negative impact of the reduction of labor resources on per capita output is self-evident. Cai Wei's research on economic growth since China's reform and opening up held that the decline in China's total dependency ratio in 1982-2000 drove the growth rate of per capita GDP by about 2.3 percentage points, contributing about a quarter of GDP growth per capita during the same period, and confirmed the labor force. The greater the total amount of resources, the greater the share of the total population, which has a positive effect on per capita output.

The labor participation rate is an indicator to measure people's participation in economic activities, and is the ratio of economically active population to total labor resources. According to Cai Wei’s research on the change of labor participation rate in different age groups, the development of education has made the average labor time of laborers prolonged, and the labor participation rate of the 15-19 age group has the fastest decline. The year's 67.05% fell to 34.14% in 2005. The labor participation rate of all age groups of 20-44 years old is relatively stable and relatively high, basically staying above 90%. The labor participation rate of the 45-49 age group is declining, especially the labor participation rate of the 60-64 age group is only maintained. About 20%. American scholars have found that age 45 will become a turning point in the decline of labor productivity. After this critical point, the creativity of the labor force will be significantly less than that of the labor force under 45 years old. It can be seen that the increase in the labor force in the middle-aged labor force has a significant negative effect on labor participation rate and labor productivity.

5. Conclusion

This paper believes that labor mobility with moderate employment security should be achieved to promote regional economic growth. Specifically, we should start from two aspects: First, further deepen the reform and realize the free and fair flow of the labor force. On the one hand, we will reform the urban-rural split employment system with the household registration system as the core, eliminate the dual dual market, and guide the free flow of labor. Reform the traditional formal sector, eliminate administrative intervention, industry monopoly and regulation, and improve the labor market for urban and rural development; and accelerate the construction of the labor market information system. The second is to speed up the construction of a social security system for urban and rural planning, deepen the reform of the public finance system, build a safety net covering the whole society, strengthen the protection of workers' rights and interests, and provide necessary

social security services for all labors.

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