

Changes in the allocation of resources to education in the new demographic situation

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Abstract: The fertility rate in China continues to decline, and the number of newborns is decreasing year by year. Meanwhile, due to significant population mobility, the number of teachers, schools and the allocation of educational resources also change with the population changes. The decrease in the number of newborns has different impacts on the allocation of resources for primary and higher education, and the population and educational resources are concentrated in the cities and towns and developed areas. These phenomena require us to pay attention to the allocation of educational resources to improve the level of education while paying attention to the compulsory education itself.

Key words: decline in newborns; population mobility; educational resources; unbalanced communal development; unbalanced regional development

1 Introduction

The Seventh National Population Census in 2020 (referred to as the "7th Census") revealed the new development of China's population, in which three major trends are: the aging of the population has deepened and accelerated; the fertility rate has remained at a globally low level; and there has been a super-large-scale movement of people. These three trends present both challenges and opportunities, collectively pointing to the allocation of educational resources.

2 Impact of fewer newborns on educational resources

2.1 Decreasing in the number of newborns in the demographic situation

After the 1980s, China controlled excessive population growth with an iron fist, formulating and perfecting a family planning policy that strictly controlled the fertility rate. In 1990, the central government issued the Decision of the Central Committee of the Communist Party of China and the State Council on Strengthening Family Planning Work and Strictly Controlling Population Growth, which elevated family planning to the same level of importance as economic construction. In January 2016, China began the "full liberalization of the two-child" policy, and in that year, the birth rate reached 12.95%, becoming the highest point in the past 15 years, but since then the number of births has continued to decline, and by 2023, the number of births will be only half of what it was a decade ago [1].

2.2 Impact of the decline in newborns on primary education

The Kindergarten Work Regulations, which came into effect on March 1, 2016, stipulate that "kindergarten-age children are generally 3 to 6 years old," and the decrease in newborns will first lead to a major change in kindergarten's educational configuration. Kindergartens are categorized into three sizes: small, medium, and large, corresponding to class

sizes of 20-25, 26-30, and 31-35, and the number of kindergartens in cities and towns will first increase in the short term due to the small wave of the baby boom in 2016 and 2017, and then continue to decline.

Similar to the trend of changes in the number of students in school, the overall demand for specialized teachers in China's compulsory education from 2020 to 2035 will decrease. The excess demand for elementary school teachers will cultivate a large number of teachers, and junior high school teachers will first be in short supply and then in surplus [2].

2.3 Impact of the decline in newborns on higher education

At present, China's education has entered a critical period "from big to strong", and the future school-age population continues to decline. Improving the quality of education has become the center of gravity of the reform and development of higher education. Colleges and universities should pay more attention to the development of talent cultivation. With the decline in the number of students, the educational philosophy of colleges and universities may show a market-oriented trend, aiming to seize students, optimize teaching, and gradually transform students into customers.

In addition, the educational resources of universities will also change in line with the new demographic situation. The number of teacher trainees will continue to decline as the demand for teachers continues to fall, and unattractive majors will gradually be eliminated, which will also prompt schools to offer more popular majors to meet the needs of students.

3 Impact of population mobility on educational resources

3.1 Population movements in the demographic situation

In addition to the challenges of ageing and low fertility, the scale of population mobility in China is equally large. Excluding the migration of people who have acquired household registration in the place of inflow, the national mobile population has reached 376 million, an increase of 69.7% from 2010, of which 125 million are inter-provincial migrants. These figures are enough to show the huge momentum and potential of population mobility in China, so how will population mobility be accompanied by the movement of educational resources? [3]

3.2 Urban-rural imbalance in educational resources

With population mobility and the proliferation of migrant workers, a large number of left-behind children have appeared in rural areas, which poses a challenge to both family education and school education. Solving the problem of left-behind children's education is more about economic issues and family issues, and in terms of schools, it is necessary to pay attention to the growth of children's minds, while helping left-behind children maintain psychological connections with their parents to ensure the healthy growth of children's minds.

Compared to the last census, the proportion of the urban population has risen by 14.21 percentage points, and we are obliged to take into account the balanced development of education in the countryside while expanding the capacity of compulsory education in the towns; most rural families go to the towns to receive an education because the quality of education in the towns is much higher than in the countryside, and it is only when education in the countryside is done well that we can prevent rural families from sending their children blindly to schools in the towns [4].

3.3 Regional imbalances in educational resources

Based on the data from the Sixth National Population Census and the Seventh National Population Census, the educational attainment of the population in the 31 regions of China was analyzed through systematic cluster analysis. The analysis reveals that, in terms of spatial distribution, due to the influence of the development of the economic level on education, the educational attainment of the population of the central-eastern region of China is generally better than that of the western region; the educational attainment of the population of the northeastern region is generally better than that of the northwestern, southwestern, and southeastern regions. However, after a decade of development, the overall development of the educational level of the population in the country's 31 regions has been increasingly harmonized with

economic development.

4 How to better allocate educational resources

4.1 Inducing the pooling of educational resources in outlying areas

Shrinking and centralizing the allocation of public education resources and population in places of population outflow is an inevitable choice, saving financial expenditure and improving the quality of public education; schools with too few students or unable to guarantee the quality of education should be considered for closure, which not only promotes the centralization of the supply of education, but also paves the way for the centralization of the population's residence in the future.

4.2 Concern for the development of compulsory education

The population of basic education age will be reduced by 100 million by 2035, and at the same time, there will be a large amount of extra financial funding for basic education, providing a large amount of space for the conversion of educational resources. Therefore, it is possible to consider launching the "strong start" policy of investing in pre-school children's care and education in comparison with the developed countries, while trying to incorporate senior high school into the compulsory education system, and shortening the duration of junior middle school and elementary school. According to the previous analysis, the higher education, by virtue of its own characteristics, is less affected by the reduction of population, and can improve the general education level of the population, maintaining talent advantages in future technological reform and innovation [5].

4.3 Adhering to a people-centered approach and improving teaching standards

Talent cultivation is the primary function of the school. China's upcoming student population crisis is not only reflected in the number of students, but also in the quality of education, along with the continued expansion of higher education. How to improve the quality of teaching and learning, and cultivate the talents needed by the country has become an urgent problem for colleges and universities, and even the whole society. In addition, according to the previous analysis, with the reduction of the student population, students gradually change into the role of customers, and schools need to grab students. At the same time, it is also required that colleges and universities should focus on the scale, teaching efficiency, and quality of education, and coordinate the development of educational resources into the teaching process.

5 Conclusion

The demographic situation demonstrated by the Seventh National Population Census allows us to see a lot of problems. China is currently in an important stage of development, requiring a large number of high-quality labor force and talents, which puts forward higher requirements for the rational allocation of educational resources, not only to prevent too much imbalance of educational resources between the region and the townships, but also to take into account the allocation of resources for primary and higher education. In terms of specific policies, some regions require "centralized contraction of public education resources" to optimize resource allocation, and at the same time, some individual schools need to improve teaching quality and cultivate more outstanding talents for China.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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