

The Influence of Population Changes on the Allocation of Preschool Education Resources and Suggestions: Take Binzhou City of Shandong Province as an Example

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Abstract: Population change has had a great influence on the development of preschool education. This article provides insight into the population change situation in Binzhou City, which is helpful to formulate preschool education policy scientifically and allocate preschool education resources reasonably.

Keywords: Population change; Preschool education; Resource allocation

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1. Introduction

The report of the 20th National Congress put forward the concept of education for children, which indicates that China's preschool education has shifted from focusing on scale and quantity to comprehensively improving quality. At present, the birth rate of the newly born population continues to decline, so ways to meet the educational needs of the preschool population based on rational use of existing resources is an important challenge for the future planning and layout of preschool education ^[1].

2. Background

2.1. Popularization, quality, and balance have become the core themes of the development of preschool education in Binzhou City

As one of the important prefecture-level cities in Shandong Province, Binzhou has achieved remarkable results in the development of preschool education under the strong leadership of the party and the government. As of June 2020, there are 938 kindergartens in Binzhou, of which 476 are public kindergartens, accounting for

50.75%. There are 146,000 children in kindergartens in the city, with a three-year gross enrollment rate of 90.49% and a coverage rate of inclusive resources of 86.33% [2]. At present, Binzhou City is actively promoting the construction of provincial demonstration kindergartens to improve the quality of kindergartens and focus on giving children a good education. It can be seen that Binzhou gives priority to promoting the high-quality development of preschool education, and has realized the transformation of the modernization development goal from basic popularization to popularization and quality.

2.2. The change of birth policy affects the allocation of resources for the development of preschool education in Binzhou City

According to the main data of the 7th National Population Census of Binzhou, the permanent population of Binzhou is 3,928,600. In the past 10 years, the population increment of Binzhou ranked seventh in the province and continued to maintain a steady growth trend. From the perspective of age composition in the city's permanent population, 0–14 years old population is 711,600, accounting for 18.11%. This study failed to find the new birth rate and the number of births in Binzhou in the past three years on the official information platforms of Shandong Provincial Bureau of Statistics and Binzhou Municipal Bureau of Statistics. However, from 2017 to 2020, the number of births in Shandong reached 1.75 million, 1.33 million, 1.183,900 and 870,000 respectively [3].

From the above point of view, the continuous decline in the birth rate of new births has an important impact on the allocation of preschool education resources in Binzhou City, and it is particularly important to rationally allocate preschool education resources under the change in population. This paper takes Binzhou City of Shandong Province as an example, through the investigation and research on the change of preschool population and preschool education resources, discusses the influence of the change of preschool population on the allocation of preschool education resources, and provides suggestions and directions for the further development of preschool education resources.

3. Characteristics of preschool education policies in Binzhou City

This part of the data comes from the data information platform of the Binzhou Bureau of Education and Binzhou Bureau of Statistics, which is summarized in **Table 1**.

Table 1. Policy of preschool population and preschool education resources in Binzhou City

Time	Policy text and brief interpretation
2022	Notice on Issues related to standardizing the Administration of Kindergarten Fees in the City Interpretation: Establish a scientific assessment mechanism for the cost of running kindergartens in counties and urban areas, further clarify the standard of public funds per student or the standard of financial allocation per student for public kindergartens, and the subsidy standard for inclusive private kindergartens, build a dynamic adjustment mechanism for the charging standard of public kindergartens, and ensure the implementation of the policy of supporting social forces in running schools.
2022	Quality Evaluation Standards for Kindergartens in Binzhou City (Trial) Evaluation Standards for Professional Development Level of Kindergarten Teachers in Binzhou City (Trial) Interpretation: The implementation of quantitative and qualitative evaluation of kindergarten operation is aimed at promoting the universal, inclusive, safe, and high-quality development of preschool education in the city, standardizes the kindergarten operation behavior at all levels and of all types, improves the quality of kindergarten operation, and comprehensively promotes the fair and high-quality development of education.
2021	Implementation of the 14th Five-Year Plan Action to Improve the Development of Preschool Education Interpretation: To promote the universal and inclusive development of preschool education.

Table 1. (Continue)

Time	Policy text and brief interpretation
2019	<p>Implementation Plan for Special Renovation Work of Supporting Kindergartens in Urban Residential Areas of Binzhou City</p> <p>Interpretation: To further solve the outstanding problems of urban residential supporting kindergartens (including the reconstruction of old urban areas and shantytowns, the development of new cities, and the supporting construction of migrant relocation kindergartens, the same below) such as no planning, insufficient planning or implementation of planning, should not be built, should not be delivered, and be used for other purposes.</p>
2018	<p>Notice of Binzhou Education Bureau on the Supervision and Evaluation of Kindergarten Operation Behavior in 2018</p> <p>Interpretation: It has comprehensively planned the special supervision and evaluation work of kindergarten kindergarten running behavior, and guided and urged each county (district) to formulate special supervision programs and work plans successively.</p>
2018	<p>Opinions of Binzhou Municipal People's Government on the Implementation of the Third Pre-school Education Action Plan</p> <p>Interpretation: Under the guidance of overall planning, public welfare, mechanism innovation, and people-oriented principles, from 2018 to 2020, the city has built, renovated, and expanded more than 300 kindergartens, added more than 70,000 new preschool degrees, and the gross enrollment rate of preschool three years has reached more than 90%. The coverage rate of inclusive kindergartens (the proportion of the number of children in public kindergartens and inclusive private kindergartens in the total number of children in kindergartens) has reached more than 80%, and a public service system of preschool education with wide coverage, basic protection, equity promotion, and quality has been established.</p>

Note: The policies in the table include laws and regulations, important documents and notices of Binzhou City, and so on.

It can be seen that the policies on the number of preschool population and preschool education resources are not only reflected in education but also the population policy. Binzhou takes the development of preschool education as the implementation of education priority and promulgates policies and measures from the aspects of top-level design, working mechanisms, layout planning, and financial investment ^[4]. Taking into account the differences between different regions, family economic conditions, and social needs as well as population changes, increase financial investment to support undeveloped areas and gradually improve preschool education infrastructure and teacher team construction, and provide more subsidies and subsidies to low-income families in resource allocation to ensure that they can also enjoy high-quality preschool education services ^[5]. At the same time, adjust the direction of resource allocation according to social needs, pay attention to the needs of special children, left-behind children, and other groups, provide targeted preschool education services, and comprehensively build a preschool education public service system that covers urban and rural areas with reasonable layout, adequate resources, and universal benefits to meet the needs of the broad masses of the people for preschool education. While ensuring basic coverage, the reasonable allocation of preschool education resources ensures that every child can enjoy fair and high-quality preschool education, and promotes sustainable social stability and sustainable economic development ^[6].

4. Policy suggestions

Insufficient investment in preschool education has led to a mismatch between the preschool population and preschool education funding, resulting in a shortage of preschool education resources. The government's attention to preschool children is insufficient compared with the actual needs, and the implementation of policies is not in place ^[7]. At the same time, the corresponding effects of preschool education policies need to be further adjusted and resolved. Binzhou City is located in the southeast of Shandong Province, the geographical location is relatively remote, and regional factors make it relatively difficult to allocate preschool education resources. To solve the above problems, the following measures are taken in this study ^[8].

4.1. Increase financial input to solve the problem of uneven distribution of preschool education resources

The government shall increase the capital investment in preschool education resources, and increase the investment in Binzhou City. The Action Plan for the Development and Promotion of Preschool Education in Shandong Province in the Fourteenth Five-Year Plan 2022 proposes to improve the funding investment guarantee mechanism, consolidate the foundation for the development of preschool education, comprehensively improve the ability of preschool education services, narrow the gap between urban and rural educational resources, and improve the efficiency of allocation of educational resources. First, increase the investment in Binzhou City and guarantee the rational use of the investment in a comprehensive way^[9]. The second is to ensure universality and fairness. Actively implement the policy document of the Shandong Provincial Department of Education and Department of Finance on the Administration of Provincial Awards and Subsidies for the Development of Preschool Education 2021, clarify the proportion of funds invested in preschool education, and rationally plan and design the investment and use of funds. The third is to establish diversified channels of fund investment financing mechanisms and establish a new process of diversified channels such as local government, central subsidies, and family sharing^[10].

4.2. Improve policy support and strengthen the building of the population monitoring system database

The government should clarify the policy objectives, motives, and functions of preschool education, be scientific, standardized, and effective in policy formulation, implementation, and supervision, strengthen policy support, and increase policy support, to provide a solid policy foundation and legal guarantee for the development of preschool education^[11]. First, carrying out regular surveys on the fertility intention of women of childbearing age, grasping the number of women of childbearing age and their fertility intention, and comprehensively monitoring the number of newly born infants and young children is conducive to more accurate prediction of the future number of preschool children. Second, construct a Binzhou dynamic population forecasting system model^[12]. Master the current population change amplitude and pattern, do a good job in the future population change trend forecast, and improve the prediction accuracy. The third is to build a database on the number of preschool children in Binzhou. Formulate the data collection standards of the newborn population and record in detail the basic personal information, family information, and teachers of children aged 0 to 6, to grasp the flow trend and direction of the preschool population in time^[13].

4.3. Actively carry out cross-field cooperation

The government should actively support the cooperation between preschool education and society and families, bringing into play the role of families, communities, schools, the government, and other forces to promote the popularization of preschool education. The government should launch a joint system for early childhood care and encourage all kinds of early childhood education institutions to promote the optimization and upgrading of kindergartens and the integration of resources through resource integration, to make full use of more high-quality early childhood education resources^[14]. First, the construction plan of kindergarten houses in Binzhou City has a long period, so existing resources can be used. The second is to strengthen the surplus school buildings and idle houses after the planning of primary and secondary schools. The third is to implement the construction work and management system of residential kindergartens. According to the Opinions of Binzhou Municipal People's Government on the implementation of the Third Pre-school Education Action Plan (Binzheng Word [2018] No. 13), Opinions of Binzhou Municipal People's Government Office on the implementation of Lu Government Office Word [2018] No. 71 Document to Further Accelerate the reform and development of

Pre-school education (2018), Binzhou Municipal Kindergarten Quality evaluation standards (Trial) (2021), and other building construction standards for the transformation of pre-school education.

4.4. Establish training and evaluation standards for preschool education teachers in Binzhou City

It takes at least 3–4 years to build the kindergarten teacher team, and its growth needs long-term planning and overall construction. First, multiple measures are coordinated to promote and alleviate the contradiction in the supply of teacher resources. The second is to deeply explore the existing post-study education resources to play an important role. The third is to protect the rights and interests of preschool education teachers and enhance the stability of the teacher team. Fourth, strengthen supervision and management and improve the teacher evaluation system.

4.5. Vigorously develop the 0 to 3-year-old infant care service in Binzhou City

Since 2017, the newly born population of Shandong Province has continuously dropped, which can be inferred that the birth population of Binzhou City has also shown a downward trend, which will inevitably affect the allocation of preschool education resources in Binzhou City. China's childcare service industry is in its infancy and the supply and demand gap is still relatively large. To encourage qualified kindergartens to properly enroll a part of 2 to 3-year-old children, Binzhou actively carried out exploration and attempts and achieved remarkable results^[15]. First, with the sharp decline in the birth population and the decrease in the number of kindergarten students, there is vacant land in the preschool education park. This part of the empty land can be transformed into a 0 to 3-year-old nursery service land, and the 0 to 3-year-old infant nursery class can be built to solve the demand for nursery service. The second is to strengthen the training of nursery teachers and encourage kindergarten teachers and early education teachers to transition to the nursery service business. Third, the government will build a high-quality development system for integrated childcare for children aged 0–6, establish a sound dynamic population monitoring mechanism, accurately grasp the needs of family childcare, increase the supply of high-quality childcare services, effectively make up for the shortcomings of childcare services for infants under the age of 3, and comprehensively improve the quality of childcare services.

In the future, the allocation and utilization of early childhood education resources should continue to be studied in depth to strengthen exchanges and cooperation with government functional departments and scholars and promote the development and improvement of preschool education in China.

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