Education in China-Unbalanced Educational Development Caused by Regional Differences

--Taking Gansu and Beijing (2010-2015) from Economic Perspective as Examples

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Abstract. Nowadays, the difference in the development of education levels among various regions in China is more and more obvious, and the allocation of education resources in various regions is also unbalanced. This unbalanced situation will have serious repercussions on the attainment of social equity. Imbalanced educational development will exacerbate social polarization; Influence the reasonable movement of members of society from one stratum to another; Diminish public expectations of social development and self-development, leading to social psychological imbalance; It is also going to skew the image and the role of government and affect the bottom line of social justice [1]. In China, the economic gap between the Orient and the west is significant, and the difference in resource allocation in all aspects is also large, which leads to a very large gap in education levels between the east and the west. Generally speaking, the western region lags behind the eastern region. As the development situation of the Eastern region is getting better and better, favourable conditions attract a wide range of talent, and the talents and population are mostly concentrated in the eastern region, which leads to an increasingly large development gap between the two regions. Taking Beijing and Gansu as an example, from the economic point of view, by comparing the GDP index, per capita disposable income, and education capital investment of the two places, this paper studies how the economic differences between the two places cause this phenomenon of unbalanced development and put forward some suggestions.

Keywords: Regional Difference, Education Level, Economy, Education Resource Allocation.

1. Introduction

Historically, differences in geographical surroundings have directly caused differences in economic development, culture, and education. Moreover, following reform and openness, the state has adopted the policy of becoming wealthy first and leading to becoming wealthy later, which also made a direct contribution to the widening of that difference [2]. At present, in the search for equity in education and the achievement of the balanced development of basic education, there are various imbalances. The reasons for the imbalance of basic education include the absence of responsibilities of governments at all levels and improper local public education policies; At the same time, the difference between regional and urban-rural economic development is also an important factor for the balanced development of basic education.

This paper mainly studies regional education. To begin with, the difference in education development between regions is a hot topic in China. Otherwise, it attracts great concern globally. Moreover, to promote the enrichment and deepening of educational theory. From the perspective of original education theory, the importance of regional education research is mainly reflected in the following aspects:

First, increase the originality of educational theory to a certain extent. Because regional education research is the education research that faces reality and seeks the native theory, it has the significance of increasing the original education theory.

Second, change the atmosphere of educational scientific research. Compared with other levels and types of educational scientific research, regional educational research directly faces the practical problems in regional education and seeks real knowledge about regional education and the unique interpretation, prediction, and control of regional education.

Third, to enrich and develop comparative education theory. The definition of comparative unit and theme must be based on the division and research of regional and regional education, which constitutes the important foundation of comparative education research. Comparative education research without the foundation of regional education research is vague and difficult to deepen [3].

Furthermore, understand the changes and special laws of regional educational practice. The practical significance of regional education research lies in its role in promoting the harmonious development of regional society, mainly in the aspects of politics, economy, and culture. Regional education research is based on the imbalance of regional development. The point of departure of regional education research is to admit the difference and imbalances. However, the ultimate goal is to narrow the gap, move toward the balanced development of regional education, and then achieve the coordinated development between regional education and regional economy and society [4].

Regional education research is based on the recognition and respect of regional differences. Through the research on regional education, it can reveal the educational differences among different nationalities, different cultural backgrounds, and different development levels and advocate the harmonious coexistence of multi-cultures, which will help to eliminate regional prejudice and discrimination in education. To display the regional educational research and give full play to the function of educational research in innovation and creation of social culture will be beneficial to the display of unique regional culture and the inheritance and development of excellent culture, and to achieve the purpose of optimizing the regional social education environment.

With regard to the allocation of educational resources, the unequal distribution of educational resources is the principal form of imbalanced development of basic education in China. The imbalance between areas is the first. The disparity between school operating conditions and educational development levels in the eastern, central, and western regions of China, as well as between those conditions and levels in economically developed or more developed regions and economically underdeveloped or poor regions within the same region, is a manifestation of the country's regional imbalance in basic education [5].

Taking Beijing and Gansu, for example, and comparing the educational development status of these two regions from economic, political, and teachers' perspectives, this study discussed two questions. Firstly, how do differences in economy, government, and teachers lead to unbalanced educational development between the two regions? Secondly, what suggestions can give to narrow the gap between regional education level and educational resource allocation? The aim of this research is that study the reasons for the unbalanced development of regional education in China and put forward specific suggestions to narrow the gap between regional education development and resource allocation.

2. Literature review

There is much literature on the unbalanced development of Chinese education from the economic perspective. The two articles mentioned below are similar to the research direction of this paper, but they have some different views from this paper.

Professor Changjun Yue from the School of Education of Peking University discussed the unequal regional distribution of educational resources in China from an economic perspective [6]. Its research topic is The influence of regional differences in economic development on the allocation of educational resources. Based on the Gini coefficient, this paper makes an empirical study of the economic development, the degree of urbanization, and the level of educational development among Chinese provinces. This paper discusses the equity and efficiency of the allocation of educational resources in China. This method is mainly used to study the level of China's inter-provincial education development, the relationship between education development and economic development, and the degree of urbanization, and to discuss the equity and efficiency of educational resource allocation from the perspective of macro-economy. This paper first discusses the differences in the level of economic development in China, mainly comparing the differences in per capita GDP, per capita

income, and per capita fiscal income and expenditure, as well as the relationship between these differences and the investment in education. Studies have shown that there is a positive correlation between these contrasting elements; that is, the higher the per capita GDP of the region, the more per capita income, so the investment in education funds will increase, then the more investment in the region education resources allocation is higher, and vice versa, the lower. Later, the article compares urbanization. Firstly, the degree of urbanization in China is relatively slow, and the economic level and the level of urbanization promote each other. Therefore, there is a significant regional difference in the extent of urbanization. For example, the urbanization degree of China's central and western regions is far less than that of the southeast coastal areas. So the level of urbanization significantly influences education to some extent. These reasons make the regional difference in per capita education expenditure in China more obvious, so the gap in the allocation of education resources in different regions is widening. In the end, the researcher puts forward that in order to improve the efficiency of the factor of production market, letting the labor resources migrate from the west to the east can improve the allocation efficiency of educational resources in the macro view, and the children of the west can enjoy the educational resource in the east. The proposal is unfriendly to western China, where the degree of saturation of the labor market is much higher. Suppose the western region of the labor and talent continue to drain. In that case, it will undoubtedly increase the economic level gap between the east and the west, leading to even more uneven levels of education. Moreover, the children in the western region who have only the elderly and the sick and disabled cannot fully enjoy the educational resources and can not go to school in other cities. Therefore, Professor Changjun Yue's article also lacks some practical considerations.

In addition, the researchers Baifu Shen and Shiqiu Yu of the Hubei Institute of Science and Education also studied education from an economic perspective [7]. Their research topic is "Regional Comparative Study of Local Education Investment at Provincial Level in China." Their paper puts forward the concept of the educational economic region for the first time and uses the gray clustering method to divide the educational economic regions in China. By analyzing the indicators of education development and social economic development in four kinds of educational economic regions, the two researchers find that the gradient of social and economic development levels of each region is vast, while the gradient difference of educational development levels is relatively small. The relative balance of the level of education development requires roughly equal investment in education across the country. The social and economic development imbalance makes it difficult to meet the educational investment requirements in backward areas. The incoordination between the level of education and socioeconomic development in different regions leads to the imbalance of education investment. By studying the general changing trend of the main indicators of educational investment in a year in four kinds of educational economic regions, Shen Baifu and Soqiu think that some local educational investment indicators have the dual invariance of change and invariance; that is, they have little fluctuation in the vertical and relative stability, which is a local commonality. Change refers to the same index for different regions and degrees of difference with regional characteristics. Therefore, the researchers propose to establish a microcomputer analysis system to evaluate the rationality of the proportion of local education investment in China. However, the rational proportion of investment in education has not been studied systematically in China. There are only a few indicators in the international comparison of research conclusions, and according to their research, some are unsuitable for China's national conditions. Secondly, the research on provincial education investment is just the beginning. The research on the internal law of the change of local education investment still needs great effort, and the research in theory and practice also needs to make a breakthrough. The third is the lack of comparative study on the proportion of education investment in the same region abroad, the absence of necessary reference frame and reasonable standards; it is difficult to discuss whether the trend of local education investment change is reasonable.

3. Methodology

This paper uses a quantitative analysis method to study the imbalance of regional education development in China, especially the difference in educational development between Beijing and Gansu Province, from the perspectives of the economy. This paper uses the quantitative analysis method to analyze the difference in per capita GDP, per capita disposable income, and the difference in educational expenditure between Beijing and Gansu provinces. This paper compares the data of two regions from 2010 to 2015 and analyzes the relationship between the three comparative elements and their relationship with the level of education development. The reason for choosing the data from 2010 to 2015 is that this period is relatively close to today. Before the epidemic, the economy was stable, so it is better to make a clear comparison.

First, the author collected the GDP per capita data of Beijing and Gansu Province from 2010 to 2015 through the data query function of the official website of the China National Database. The economic gap between the two regions is more intuitively expressed by drawing a bar chart. Then the author collected the disposable income of Beijing and Gansu from 2010 to 2015 in the database and drew a line graph to compare the two regions' differences. However, education is one of the financial expenditures, and there is no detailed and specific data in the Chinese national database. So more detailed data on education spending in Beijing and Gansu between 2010 and 2015 is gathered from China Statistical Information Network.

4. Discussion

First, from an economic perspective, this paper compares the economic levels of Beijing and Gansu, studies the gap between the two places' educational development levels, and reveals the relationship between them. Economic growth and educational progress are inextricably linked. The economy serves as the cornerstone for both education and the survival and advancement of human society. Economic conditions for education are provided by a certain level of economic development, along with certain demands for the advancement of education. The connection between the economy and education is unique in a number of ways. The initial material foundation for educational growth is economic development. A certain amount of human, material and financial resources are made available for running education as a result of economic development. Second, the scope and rate of educational progress are influenced by economic development. The degree of higher education, the number of years of compulsory education, and the illiteracy rate all affect a nation's economic progress. Then, changes brought on by economic development have an impact on the educational structure. The educational structure is affected by the economic structure and changes brought about by economic development, such as the distribution of universities, middle schools, and primary schools, the distribution of regular middle schools and vocational middle schools, and the setting and distribution of various majors in colleges and universities [8]. Finally, the level of economic development restricts the content and means of education. Knowledge dissemination in schools is a reflection of the level of economic development and scientific and Technological Development in a certain historical stage, and educational means are also a reflection of the level of modern science and technology.

According to the statistics for 2020, Beijing has the highest average number of years of education, reaching 12.64 years. The average length of education of the Gansu population is only 9.13 years. According to the comparison of the per capita education level between Beijing and Gansu in 2020, it can be seen that the education level of Beijing's population is much higher than that of Gansu, the number of people with high academic qualifications per 100000 people is higher than that of Gansu, and the proportion of junior high school and primary school education in the population of Gansu is higher than that of Beijing. For every 100,000 people in Beijing, there were 41980 persons have a bachelor's degree or above. However, there were only 14506 persons have a bachelor’s degree or above. In other words, the number of highly educated people in Beijing is larger than that in Gansu, and the per capita education level in Gansu is lower than that in Beijing. Moreover, there are 92

colleges and universities in Beijing and only 49 in Gansu Province. The number of colleges and universities in Beijing is about twice that of Gansu Province, which further confirms that the education level of Gansu is far behind that of Beijing.

This paper mainly compares the per capita GDP, urban per capita disposable income, and fiscal expenditure - education funds between Beijing and Gansu from 2010 to 2015.

Table 1. Educational expenses in Beijing and Gansu

Province	Year	Education Budget Offered by Government (100 Million)	General Public Budget Education Expenditure as a Percentage of General Public Budget Expenditure (%)	General Public Budget Education Expenditure This Year Increased over the Previous Year (%)	Comparison of the Growth Rate of General Public Budget Education Expenditure and Fiscal Recurring Revenue (%)	National Financial Education Funds (10 Thousand)
Beijing	2010	505.78	18.61	17.15	0.81	5136580.10
Beijing	2011	604.47	18.63	18.84	5.65	6277348.40
Beijing	2012	611.92	16.60	15.85	1.57	12635869.10
Beijing	2013	699.14	16.75	14.25	7.64	8941898.80
Beijing	2014	758.49	16.76	8.49	0.23	9683640.00
Beijing	2015	847.43	14.77	0.15	(18.94)	9810774.00
Gansu	2010	258.97	17.63	10.77	1.77	2648616.00
Gansu	2011	303.85	16.96	16.05	9.86	3129281.70
Gansu	2012	362.18	17.59	32.85	13.87	4276670.50
Gansu	2013	376.17	16.29	3.86	(10.21)	4265004.90
Gansu	2014	401.10	15.78	6.63	(6.54)	4633088.00
Gansu	2015	499.85	16.90	19.48	8.63	5518606.00

4.1 GDP Per Capita

As can be seen from Figure 1, the per capita GDP of Beijing and Gansu increased year by year from 2010 to 2015, and the per capita GDP of Beijing was always much higher than that of Gansu Province, and the per capita GDP growth rate was faster than that of Gansu Province. There are many reasons for this gap. Because Beijing is located in the center of China and is also a political center, with a large population, abundant labor and other resources, perfect public facilities, and developed enterprises, it will attract more talents and create more GDP. Gansu Province is located in Northwest China, its geographical location is remote, and the west has been less developed than the east. Therefore, the population and public facilities cannot be compared with Beijing, and the GDP output value will naturally be less. The obvious gap in per capita GDP between Beijing and Gansu has led to the imbalance in the allocation of educational resources and educational development between the two places. There is a positive correlation between the two; the higher the per capita GDP level, the better the level of education development. Therefore, by comparing the data of the per capita GDP of the two places in recent years, it is not difficult to see that since the per capita GDP of Beijing is higher than that of Gansu Province, the development level of education in Gansu Province is better than that of Gansu Province, so the development level of education in Gansu province lags behind Beijing.

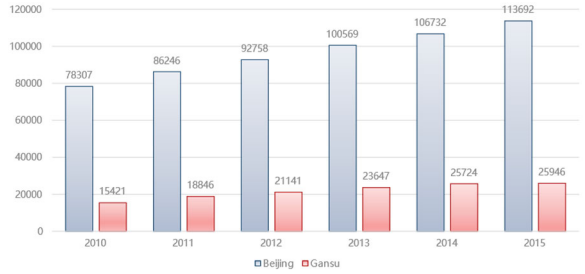

Figure 1 Per capita GDP of Beijing and Gansu.

4.2 Disposable Income Per Capita

Figure 2 compares the per capita disposable income of urban residents in Beijing and Gansu. According to the chart, the per capita disposable income of urban residents in Beijing is much higher than that in Gansu Province, and the income gap between the two places has increased yearly. This means that due to the low per capita disposable income of the people in Gansu Province and the necessary living expenses, it is difficult to have money left over, so people will spend less on education. Beijing residents' per capita disposable income is relatively high, which means parents have sufficient funds to invest in their children's education. For example, they will let their children take extracurricular classes, such as Lego, programming, painting, and musical instruments. Therefore, due to the high demand for these education methods or products in Beijing, the allocation of educational resources is better. However, Gansu Province is relatively backward in allocating educational resources because the demand for these educational forms or products is not as great as in Beijing. Therefore, per capita, disposable income will also affect the local demand for educational products. When food and clothing become a problem, people will not pay too much attention to education. Eventually, the gap between the two places' education levels widened. There is also a positive correlation between per capita disposable income and the level of education development; the higher the disposable income, the higher the level of education development. Therefore, the gap in per capita disposable income between the two places also leads to the gap in education development

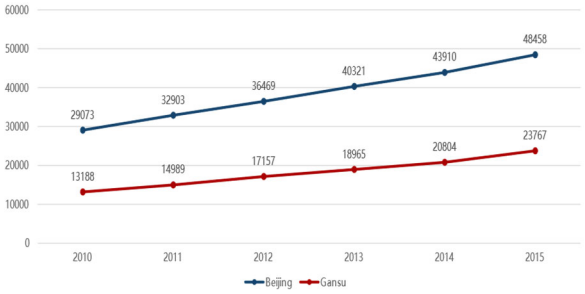

Figure 2 Per capita disposable income of urban residents in Beijing and Gansu

4.3 Fiscal Expenditure - Educational Expenses

In table 1, from the data comparison of education funds between the two places, it can be seen more intuitively that the amount of education funds invested in Beijing is always higher than that in Gansu Province. In recent years, the proportion of education expenditure in the whole financial expenditure in Gansu Province has also become higher and higher, comparable with Beijing. However, due to Beijing's better economic development, Beijing, the total GDP of Beijing is higher than that of Gansu, so the government tax revenue is higher than that of Gansu. Then the Beijing municipal government has sufficient funds to develop various undertakings, so the financial expenditure is higher than that of Gansu, so the amount of Education investment is more considerable than that of Gansu. The large number of funds invested by the government in education can also drive residents to pay more attention to education. Driven by the government, residents will pay more attention to education and the all-around development of children to stimulate local people's

investment in education. Therefore, it is not difficult to launch. Beijing invests more money in education, so the allocation of educational resources is better than that of Gansu. Therefore, the gap between the two places' educational development is growing.

5. Implication

This study is conducive to further mobilizing the enthusiasm for local education development and accelerating regional education reform and development. Favorable to the education reform and development in underdeveloped areas. It is beneficial to change the educational concept of regional practice, explore the effective way of combining regional education with regional society and regional economy, and make the education in underdeveloped areas better serve the social and economic development. The comparative study of regional education development is helpful to explore an effective way to combine regional education with regional economy and promote the development of regional economy and even national economy. This study is also conducive to balancing the level of education development among regions and strives to achieve the balanced or coordinated development of education level and education resources allocation among regions [9].

In order to maintain the growth while not enlarging the educational gap, taking into account efficiency and fairness, the Gansu government should actively develop the local economy, maintain long-term and stable economic growth, and make the economic growth rate slightly higher than the increase of per capita income. The Gansu government should continue to increase the financial education expenditure, raise education funds from all sides, and encourage the diversification of education investment. The country could actively encourage enterprises, institutions, and individuals other than the government to invest in education, especially through tax relief and credit policies to encourage private investment in education in poor and backward areas to increase access and improve the quality of education. From the capital flow perspective, the government should carry out appropriate inter-provincial financial transfer payments to help the weak, rich help the poor. Because Beijing has obvious advantages in many aspects, such as geographical location, material capital, human capital, preferential policies, and so on, the economic gap between Beijing and Gansu will continue and even further widen. The difference in economic objective conditions makes the opportunity for economic development in these two areas not equal; therefore, it is necessary to carry out financial transfer payments [10]. For example, Beijing can appropriately provide economic assistance to Gansu Province, especially for education development and investment help. Schools can carry out exchanges and cooperation between the two regions to promote the joint development of both sides. Accelerating the urbanization process similar to Gansu and other regions is necessary because the concentration of population is conducive to the adjustment of the distribution of schools and improves the efficiency of the use of educational resources. Therefore, accelerating urbanization's pace is conducive to economic development and the efficiency of using educational resources. Gansu and other backward areas should not only increase investment in education, especially in higher education, but strive to cultivate talents, and provide policy help and support, improve people's income, provide preferential economic services, attract high-tech talents.

6. Conclusion

To sum up, in China, there are still great differences in the level of education development among regions. By comparing the economic differences between Beijing and Gansu, this paper further discovers the relationship between economic level and education level. There is a positive correlation between the economy and education. The more developed the economy, the better the level of education development. In view of the relevant problems, relevant opinions and suggestions are also put forward later. However, this paper only studies the differences in the development of education levels between regions from an economic perspective. There are other factors such as policies and

talents that cause the differences in education levels between regions. Therefore, it is necessary to explore this problem in a more comprehensive way and put forward relevant solutions.

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