Analysis of Regional Differences in the Distribution of Higher Education Opportunities in the Concept of Educational Equity

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Abstract. Cultivating top-notch innovative talents and promoting China's social progress require attention to the distribution of higher education opportunities. Therefore, the distribution of higher education opportunities has important research value for the development of education in China in the 21st century. Through literature survey, this study finds that the current distribution of higher education opportunities in terms of regional differences has problems with the entrance examination system, educational resources allocation, differences in the teaching force, educational policy input, and inequitable access to higher education due to differences in educational information technology. And accordingly, five recommendations are proposed: to add diversified subjects, to carry out diversified admission methods according to the characteristics of the west, to increase the investment in the allocation of educational resources in the west, to increase the capacity and improve the quality of the teaching force in the west, to enhance policy support and financial investment, and to strengthen infrastructure construction and promote information sharing of educational resources.

Keywords: Educational equity, Distribution of higher education opportunities, regional differences.

1. Introduction

Higher education, as an important part of the education sector, is a key part of building an educational powerhouse that cannot be ignored [1]. Since the resumption of the college entrance examination system in 1977, China has carried out several reforms of the college entrance examination system, the core direction of which is to ensure that the college entrance examination, as an important channel for the distribution of higher education opportunities, can achieve educational equity [2]. However, educational equity still needs to be further developed and reflected in the current college entrance examination system [3]. 2022 China's gross rate of higher education enrolment is 59.5%, but the undergraduate admission rate is low at less than 50% [4]. In contrast, South Korea, also an Asian country, has an enrolment rate of 70.7%.

Therefore, this study will explore the characteristics of regional differences in the distribution of higher education opportunities from the perspective of the concept of educational equity. By exploring the current status of regional disparities in the distribution of higher education opportunities, the dilemma will be illuminated and possible solutions will be proposed.

2. Review of the literature

Liu Jingming's concept of higher education opportunity allocation has been widely recognised by academics [5]. This scholar has analysed the mechanism of opportunity allocation in higher education through the perspective of ability and origin, which is a reasonable allocation of opportunities to different students according to their individual ability, background and interest. This study follows the above-mentioned perspective and argues that the distribution of access to higher education refers to how access to higher education is distributed in a relatively equitable manner so that a significant number of people have access to higher education [6].

This study focuses on the exploration of access mechanisms to higher education; therefore, the micro-meaning of educational equity is that everyone has a fair chance of access; all can be fairly

evaluated and have the opportunity to try to enter higher education by demonstrating their abilities through multiple channels. In summary, it can be seen that educational equity in the access mechanism is not only to give opportunities to all people across the board, but also to oppose privileges and make reasonable inclinations to special groups. The regional differences in this study refer specifically to the regional differences in the east and west.

3. Analysis of the current situation of regional differences in the distribution of higher education opportunities

The strong demand for rapid economic development has created a need for a large number of highly educated professionals, and the Chinese government has therefore increased its investment in higher education year on year. However, due to uneven regional development and inadequate access mechanisms, government support has not been as effective as it should be, and there is still a large talent gap in professional development. For example, in the western region, where educational resources are less allocated, for example, Qinghai, which has only 68 undergraduate institutions in the province, has an undergraduate enrolment rate of 25.4 percent, ranking first in the bottom of the country.

3.1. Inequitable access to higher education due to problems with the college entrance examination system

The current set of Gao Kao subjects does not provide a comprehensive assessment of students' standards and is therefore institutionally unfair. As one of the most important ways for Chinese candidates to receive higher education, there is a definite need to reform the Gao Kao, with the ultimate aim of better adapting the Gao Kao to the current educational environment and ensuring educational equity.

3.2. Inequitable access to higher education due to the allocation of educational resources

Educational resource allocation is the process of allocating and distributing educational resources among different levels, fields and regions of the education system. Educational resources include student sources, university distribution, curriculum allocation, teaching materials, facilities, funding, technology and other resources. According to the China Education Statistical Yearbook 2021, for example, the number of students enrolled in general high schools in Guizhou province is 237,900 in 2020, while the number of students enrolled in high schools in Zhejiang province is 383,000, which is nearly 60% more than that in Guizhou province, as shown in Table 1.

Table 1. Regional differences in the distribution of resources allocation (Zhejiang and Guizhou provinces as examples)

Province	Zhejiang Province	Guizhou Province
General High School Enrolment	383,000	237,900
Number of undergraduate institutions	146	78
Master's programme	62	39
Subject specialisation	244	133

3.3. Inequitable access to higher education due to disparities in the teaching force

According to data from the 2021 National Education Development Statistics Bulletin, the western region, Guizhou for example, has 59,823 full-time teachers in general high schools in the province, while the eastern region, Zhejiang Province, has 103,585 full-time teachers in general high schools. The number of senior teachers in the two provinces is shown in Figure 1. There are 723 senior teachers and 3,600 associate teachers in Guizhou Province. Zhejiang Province has 4,529 senior teachers and 17,825 associate teachers.

The data shows that the average quality of the teaching force in Zhejiang Province is generally higher and there are more teachers. The quality of education in Zhejiang Province can be seen from

both the teaching force and the fact that teaching standards are higher than in Guizhou Province. The teaching standard of teachers has a direct impact on the standard of learning of students, which in turn affects higher education enrolment rates.

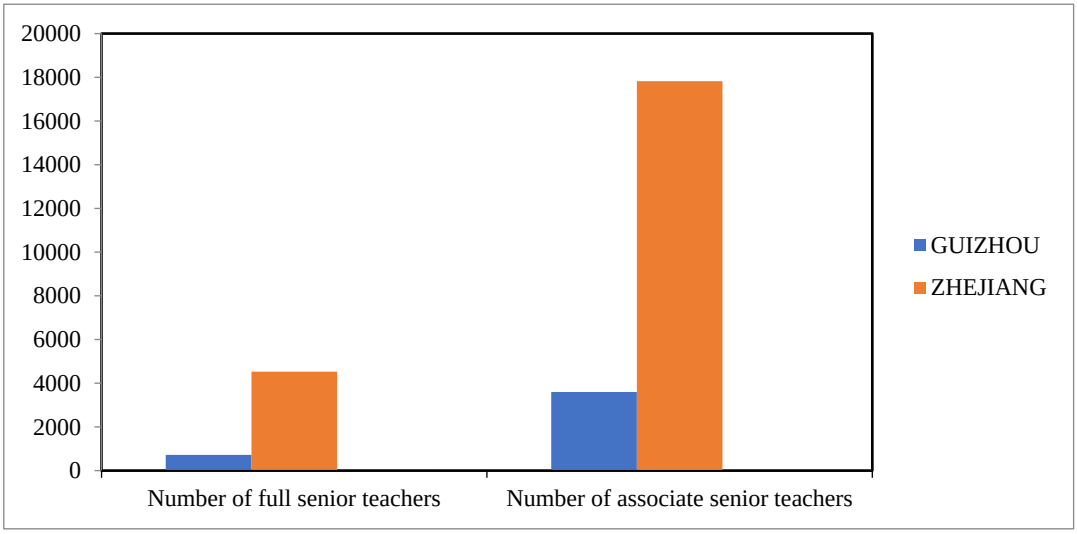


Figure 1. Regional differences in the teaching force (Zhejiang and Guizhou provinces as examples)

3.4. Inequitable access to higher education due to education policy inputs

Current Chinese education policy focuses on funding and education reform. Guizhou Province will spend a total of 47.638 billion yuan on education in 2020, compared to 374.44 billion yuan in Zhejiang Province. In terms of teacher treatment and management, Zhejiang Province attaches greater importance to the quality of its teaching force, with 546,700 teachers holding a master's degree or higher in Zhejiang Province, compared to 126,300 in Guizhou Province. Zhejiang Province has more relevant policies for advancing education in the province compared to Guizhou Province, and the reforms have been more active and effective. Li's research points out that education policies are inextricably linked to the quality of education and affect access places. The distribution of access opportunities to higher education is therefore higher in Zhejiang Province than in Guizhou Province.

3.5. Inequitable access to higher education due to differences in education informatics

Again, taking Zhejiang and Guizhou as examples, Zhejiang Province has established an education informatization platform construction, including Zhejiang Education Cloud, Zhejiang Digital Education Resources Public Service Platform and other various online resources and services. In Guizhou, the information platform is still in the preliminary stage of construction and infrastructure. Guizhou Province is still in its infancy with regard to the application of education informatization. Zhejiang Province has invested more in education informatization and has achieved certain results, while Guizhou Province still needs to invest more and strengthen the degree of application and quality of building education informatization. This is because the development of education informatization can provide more learning resources and opportunities for students. Improving learning outcomes and standards, which in turn will enhance access to higher education.

4. Analysis of regional differences in the distribution of higher education opportunities under the concept of educational equity

4.1. Diversified subjects and diverse admissions for western characteristics

China should take the following measures to further reform the regional differences in the college entrance examination system: learn from the United States and Commonwealth countries to adopt a diversified approach to admissions, especially for the western region, where there is a large

concentration of ethnic minorities and a large number of poor students, so that students can get admissions by a combination of standardized scores, application documents, volunteerism and individual strengths, and by submitting applications to target schools.

4.2. Increase investment in education resource allocation in the western region

According to the principle of compensation for education resources, the government should increase investment in education resources for poor areas and disadvantaged groups, for example by setting up special working groups to grant them government subsidies, free education and scholarship measures to ensure compensation to households. Similarly, provinces should build resource-sharing platforms for high schools, head high schools, teachers from key provincial high schools, and master teachers should provide technical support to poor areas where educational resources are scarce.

4.3. Expanding recruitment of teachers in the West and teacher training to reduce the disparity between the Eastern and Western teaching workforce

The shortage of teachers can be further addressed by expanding the number of teacher training programmes in higher education, increasing the number of targeted free teacher training students in the western region, and allocating special funding to raise teacher pay rates.

4.4. Increase funding and policy support to alleviate East-West disparity

Currently, regional disparities are influenced by local government funding and education reform policies. Therefore, the first step should be to increase education support in the west and reduce the disparity in education resources invested in the east and west.

4.5. Strengthen infrastructure development and promote information sharing of educational resources

The government should focus on strengthening informatization in the western region and establishing an east-west interconnected platform for sharing educational resources, so that advanced educational ideas from the east can breed in the west. Furthermore, the government should support higher education institutions to carry out Internet+ education to enlighten primary and secondary school students in order to enable them to plan their careers in advance. The popularity of online courses can alleviate the inequitable access to higher education to a certain extent.

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