



# A Study of the Impact of Geographical Differences between East and West on Educational Effectiveness

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**Abstract.** The issue of geographical disparities in education in China has received much attention. However, educational resources in western China are still lacking. This paper analyses the differences and gaps between the educational development of China's eastern and western regions and the reasons for them. It also analyses their advantages and disadvantages from different perspectives. This paper analyses the policies to promote the development of education in the western region, and also discusses the problems related to the distribution of educational resources. In order to address the uneven distribution of educational resources, boost funding for education, lessen regional cultural disparities, and enhance educational quality, the study suggests a curriculum. In order to improve the quality of education, it is necessary to adopt a variety of methods to improve the level of education in the West and narrow the educational gap with the East. It should take time and work on many fronts to find a comprehensive solution to the issues facing Western education.

**Keywords:** Economic Development, Teacher Resources, Policy.

## 1 Introduction

Research on the disparities in schooling between eastern and western China is growing. The factors contributing to these differences are complex and varied, requiring observation from both humanities and social sciences, as well as geography and natural sciences. While the educational status quo in both regions is improving, a gap still exists. In order to bridge the gap between Eastern and Western education, the State has reinforced the teaching workforce and adopted measures aimed at reducing educational poverty in recent years. However, educational resources remain scarce in remote mountainous areas and impoverished counties and districts, and teachers' faculties are relatively weak. This poses significant challenges for students' learning and development. This paper analyses the causes and effects of educational differences between East and West China. Suggestions for improving education in the West are presented from various perspectives.

## **2 Geographical Development Affects the Quality of Education**

Education varies across different regions, and its quality is influenced by various geographical factors such as population density, economic development, and policies. The population and economy are interdependent, with a strong economy driving urban development and attracting a mobile population.

### **2.1 Geographical Population Density**

There is a significant disparity in population density between the East and the West of China. In particular, the eastern region has a significantly higher population density than the western region, with an estimated 373.9 people per square kilometre in the former and only around 29% of China's total population in the latter. As a result, the gap in the number of people receiving education has also widened. To maintain fairness in education, the state adjusts the education system in different regions. Regarding college entrance exams, the state strives to balance the undergraduate rate. As a result, fewer students take the entrance exam in the west than in the east, reducing competitive pressure and increasing the likelihood of west students attending college. Research has demonstrated that public health service utilisation is lower in more affluent cities. A comparison between the two regions confirms that public health service utilisation is lower in the more affluent eastern region [1]. In China, provinces and autonomous regions are divided into eastern and other regions, with the former being economically more affluent. Additionally, the larger population in the eastern part of the country puts more pressure on schooling. Geographic population density is a factor that influences differences in educational effectiveness between regions.

### **2.2 Regional Economic Industries**

Economic development in China is trending from east to west and from coastal to inland locations in the wake of reform and opening up. The coastal areas have promoted economic development and attracted a large number of people for employment by vigorously introducing foreign investment and developing labour-intensive industries. This has led to an increase in the density of economic activities and population density in the coastal areas to a certain extent [2]. The western region, although some inland cities have also been opened up since 1994, has experienced serious disadvantages and is far behind due to its inland location [3]. Foreign trade has developed slowly compared to the eastern region, which is mostly a landscape dominated by plains and hills and is in a better position to develop agriculture. Foreign trade has developed slowly compared to the eastern region, which is mostly a landscape dominated by plains and hills and is in a better position to develop agriculture. Foreign trade has developed slowly compared to the eastern region, which is mostly a landscape dominated by plains and hills and is in a better position to develop agriculture. It is important to note that this is a subjective evaluation. Foreign trade has rapidly developed in the many coastal areas of the east, leading to a gradual increase in population density. The eastern region of China has achieved high economic growth due to

its favourable geographical location and the development of an export-oriented economy [4]. As a result of this rapid economic growth, the eastern region requires the development of suitable talent, leading to changes in the education policy. To cultivate more talent, the Education Bureau has introduced additional educational models and resources, with a focus on the eastern region. As a result, many parents seek to send their children to larger cities for better educational opportunities. It is important to note that this decision should be based on individual circumstances and not solely on the availability of resources. The economic development of one area, which occurred previously to the establishment of the western region, cannot be compared to that of the eastern region because of the geographic disadvantage of opening up to the outside world. Consequently, education in the western region lagged behind that of the east. The underdeveloped economy resulted in incomplete school infrastructure and a scarcity of teaching resources, prompting education policies to adapt to the actual situation.

### **2.3 Differences in Education Policies between the East and the West in Terms of Population and Economy**

Spending on education is often much higher in eastern China than it is in the west. However, due to ongoing economic development and education policies tailored to national conditions, the differences in education policies between the two regions are changing. The eastern region has more abundant educational resources, including a greater number of higher education institutions, research institutes, and highly qualified teachers. Graduates from higher education are more likely to be capable of creating new technologies and assisting in the nation's transition to a knowledge-based economy [5]. However, educational resources are relatively scarce in the Western region, resulting in unequal opportunities for students in the Eastern and Western regions to access education. Because of the disparities in economic development, the governments of the Eastern and Western regions invest significantly different amounts of money in education. With greater financial resources, the eastern areas can allocate more funds for education, raising educational standards and quality. On the other hand, the financial contribution from the Western region is comparatively low, and the lack of adequate funding for education further impedes the advancement of education. There are differences in the education curriculum between schools in the eastern and western regions. Schools in the eastern and western regions of the country have different curricula and teaching focuses. Eastern schools tend to have more varied curricula and focus on comprehensive quality training, while Western schools tend to focus more on teaching basic knowledge. As a result, there are differences in the knowledge structure of students in the two regions. Additionally, there are differences in the education policies formulated by the governments of the two regions. Governments in the eastern region may prioritise marketisation and the introduction of competitive mechanisms, while governments in the western region may prioritise equity and access. This policy orientation difference may also impact education development. The western part of China is dominated by mountains and plateaus with winding and complicated terrain, and many mountain roads are undeveloped, making

transportation difficult. Developing the economy in certain regions can be challenging. Additionally, children in mountainous areas may face difficulties in obtaining an education. In contrast, the eastern part of the country has a good geographical location, convenient transport, rapid economic development and good educational infrastructure. To promote a more balanced distribution of educational resources, the government has increased its spending on education in the western regions, thus facilitating more equitable development of education.

### **3 Factors Affecting the Effectiveness of Education**

#### **3.1 Economic Development**

Both the eastern and western areas have different economic foundations. Because of its greater educational resources and economic development, the eastern region has a higher degree of education. The western area, on the other hand, has a slower rate of economic development, which leaves it with fewer educational resources and a lower standard of education.

It is worth noting that economic development plays a key role in providing more resources for education. The economic development of the eastern region has rapidly provided more financial and material support for education. This has led to improvements in hardware conditions such as schools, teachers, and teaching facilities, resulting in an overall improvement in the quality of teaching. Additionally, economic development has encouraged greater investment in education, providing more people with the opportunity to receive a better education.

Secondly, economic development promotes the updating of education concepts and the improvement of teaching methods. Because of the economic growth in the East, people have higher expectations for education, which has forced academic institutions to continuously update their curricula and look into more efficient ways to teach to satisfy the demands of societal progress.

On the other hand, it is also clear that economic development has an impact on education in the Western region. On one hand, the region's weak economic foundation and limited educational resources prevent many children from receiving quality education. The economic underdevelopment of the western region has resulted in a significant brain drain, with many talented individuals relocating to the economically developed eastern region or other areas. This has further weakened the educational strength of the Western region.

#### **3.2 Teachers' and Geographical Policies**

There are 459,000 full-time teachers in colleges and universities in the western region and 821,000 in the eastern region (excluding Hong Kong, Macao and Taiwan) [6]. The eastern region's education plans are geared towards advancing basic education as well as raising the standard and appeal of mandatory education. For example, the Eastern Region has put policies in place to support the growth of basic education, like bolstering scientific instruction in elementary and secondary education and raising

teacher standards. Additionally, policies aim to encourage innovation in tertiary education and enhance international competitiveness, given the relatively high level of tertiary education in the region. For instance, the eastern region has implemented policy measures to support higher education institutions in conducting high-level scientific research and strengthening international exchanges and cooperation.

The education policies in the eastern region emphasise the development of vocational education and training to meet the demand for skilled personnel for economic growth. To do this, several laws and regulations have been put into place to aid in the growth and modernization of vocational education facilities as well as to raise the standard and flexibility of this type of training. By promoting societal engagement, education policy in the eastern area seeks to raise the standard and calibre of public education services. Under the Central and Western Higher Education Revitalization Plan, which was implemented in 2010, the state concentrated on constructing institutions in the western area and luring talented students to nearby schools using college and university establishments [7]. To address the demands of regional economic and social development, the western region's educational system was optimised with a logical arrangement of schools and subjects.

The government is making more investments in education in the western area, increasing the share of money for education, and making sure that resources are used and distributed fairly. To achieve this, it is strengthening the construction of the teaching force in the western region, improving the treatment and welfare of teachers, and attracting more excellent teachers to teach in the area. Secondly, to enhance education in the western region, social forces are encouraged to participate, schools are given increased support, and the conditions and standards of school operation are upgraded. These initiatives seek to advance general development as well as raise educational standards and quality, offering a solid human resource guarantee for regional economic and social growth.

## **4 Recommendations for Improving the Status of Education in the West**

### **4.1 Promoting Economic Development in the West**

The western region's economy is currently trailing below the national average in terms of per capita income. In recent years, China has increased its efforts to support the economic development of the West. The promotion of the 'One Belt, One Road' initiative provides new opportunities for the Western economy. Western higher education should take advantage of the opportunities presented by the 'Belt and Road' initiative and policy support. It should aim to build a more flexible, creative, and innovative higher education system in the West, responding to the changing times and educational landscape. This supports the high-quality growth of higher education and increases the global influence of regional universities in the West. The Western region's service industry is comparatively less developed than that of the Eastern region. The problems faced by the Western region in developing its economy are the

lack of diversity in industries and insufficient technological innovation capacity. The development of educational talents aligns with the 'One Belt, One Road' development concept and promotes economic growth in the Western region. This is an area where the government should invest more in education--building new schools, upgrading existing facilities, and increasing teacher pay, among other things. Increasing investment in education can attract more excellent teachers to the Western region and improve the quality of teaching. Higher financial expenditure on education can be used to improve teacher treatment, purchase educational resources, and build schools. Encouraging colleges and universities to run schools in the western region can also be beneficial. Colleges and universities play a crucial role in nurturing talent. Encouraging them to establish schools in the western region can increase higher education resources and improve the education level of residents. It is recommended to establish a teacher rotation system, as teachers are the backbone of education. To improve the quality of teaching, a teacher rotation system can be established to move excellent teacher resources to the western region. Additionally, the construction of education information technology should be strengthened in the same region, as the development of information technology provides new education opportunities.

## 4.2 Education Policy

Local colleges and universities in western China should focus on connotation construction, providing a think-tank foundation for economic development, and taking the development road with Western characteristics [8]. Through increasing spending on infrastructure and equipment, the Chinese government has improved the hardware quality of schools in the western region. To guarantee the development of educational infrastructure and the modernization of teaching supplies, the government should augment its investment in education in the Western region and boost the proportion of education spending to GDP. Additionally, the government has increased teacher training in the Western region to improve their professional quality and teaching standards. Improving remuneration and providing training opportunities has attracted and retained excellent teachers in the Western region. Furthermore, a method for teacher mobility has been instituted to foster collaborations between educators in urban and rural areas. The growth of the Internet has made it easier to employ information technology to improve teaching and learning in the Western area and to informative education. It is critical to balance the western region's development and fortify ties with the eastern region to raise the calibre of education there. This can be achieved through various means, such as pairing schools in the east and west and jointly running schools, to share educational resources and teaching experience. Additionally, enhancing cooperation and exchanges between schools in the East and West can also be beneficial. It is important to maintain a balanced approach to education development. It is important to balance the development of education and strengthen cooperation with the eastern region. Enhancing cooperation and exchanges between schools in the East and West through various means, such as pairing schools and jointly running them, can help share educational resources and teaching experience, ultimately improving the standard of education in the Western region. This includes encouraging

enterprises, social groups, and individuals to actively participate in education. It is important to call on all sectors of society to pay attention to the development of education.

To improve the status of education in the Western region, it is necessary for schools, the government, and all sectors of society to work together comprehensively. The quality and level of education in the Western region must be improved in many aspects.

### **4.3 Helping Poor Students**

The government should increase investment in education in the Western region, particularly by providing financial support for poor students to alleviate their burden. It is important to note that the issue of poor students is often linked to their family environment rather than just a school problem. Research has shown that changes in family background have a greater impact on students' performance than changes in school resources [9]. Therefore, it is important to strengthen educational guidance for poor families in the Western region to improve the environment of family education. This enables parents to better support their children's learning. Additionally, poor students often face greater psychological pressure, so attention should be paid to their mental health problems. Mental health education should be provided to help students build self-confidence and face difficulties positively. Students should be encouraged to develop time management and organisational skills to better cope with their heavy study load. This helps them balance their studies, social life, and family more effectively. Additionally, students should be advised to connect with family, friends, or community organizations for support and to share resources. This can help reduce financial stress and provide more social interaction and learning opportunities. The quality of education is heavily dependent on the effectiveness of teachers, who are the cornerstone of education [10]. Teachers should guide students in learning how to explore and solve problems independently. They should provide appropriate guidance to help students master effective learning methods, such as active learning and group discussion. It is important for teachers to regularly assess students' current situation and adjustment plan, and communicate with them regularly to understand their learning progress and any difficulties they may be encountering. At the same time, teachers should provide necessary support and adjust the learning programme according to the assessment results. Schools and teachers should adhere to the principle of combining school support with human development to help needy students develop a healthy and positive psychology and personality.

## **5 Conclusion**

Education in both the eastern and western regions of China is a crucial issue for the development of education in the country, as there is a noticeable disparity between the two. To promote a more balanced approach to education, a series of measures must be implemented. Firstly, the western region requires government support. This can be

achieved by increasing policy support and investment in education, improving schooling conditions, treating teachers better, and attracting excellent teachers to teach in the region. Secondly, it should enhance the strength of teachers, and improve their professional quality and teaching ability in the western region. To draw more exceptional teachers to the western area, directional training and instructional strategies can be used. A system of resource sharing for education must be established to attain balanced educational development in the country's eastern and western regions. A system of resource sharing for education must be established to attain balanced educational development in the country's eastern and western regions. Government, educational institutions, society at large, and other stakeholders must work together on this. The gap between Eastern and western education in China can only be gradually narrowed and the overall development of education can only be promoted through the implementation of measures such as policy support, teacher training, resource sharing, exchange and cooperation, and social participation.

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