

The Influence of Economic Development on Educational Equity

Anxin Chen^{1,a,*}

¹*Fuzhou No.3 High School, Fuzhou, China*

a. huayan2023@fzu.edu.cn

**corresponding author*

Abstract: Amidst the continuous economic development, notable disparities in economic prosperity have emerged across different regions. These economic imbalances have led to significant disparities in educational investment and resource allocation. Education, as a crucial factor in shaping the quality of human resources, begs the question: does the variance in its level further exacerbate regional development gaps, or can economic growth pave the way for educational equity? This paper delves into the intricate interactions and relationships between educational fairness and economic development. Using statistical data from Gansu and Zhejiang provinces as examples, we gain a glimpse into the profound influence of economic development levels on the allocation of educational resources. Regions with more robust economies often boast more comprehensive and advanced educational resources, which are closely linked to factors such as fiscal budgets, social demands, and population structures. Furthermore, this paper explores the reverse effect of educational fairness on economic development. Not only does educational equity enhance the overall quality and productivity of human resources, but it also promotes social mobility and harmony, helping to alleviate societal injustices and class conflicts. The relationship between educational fairness and economic development is intricate yet interconnected.

Keywords: Education, economic growth, educational equity, sustainable development

1. Introduction

With the rapid advancement of technology, the digital economy and globalization continue to deepen, resulting in a robust overall development trend for the global economy. This dynamic change has positively impacted the improvement of average living standards and the development potential of human capital. Nevertheless, there exists a notable imbalance in economic development across geographical regions, demonstrating significant disparities and inconsistencies.

For example, China, is already ranked as the world's second-largest economy, and the largest industrial nation. However, despite its remarkable development, China faces prominent issues of unbalanced and inadequate development. In 1953, the GDP of southern China was 384.95 billion yuan, while that of the northern region was 349.15 billion yuan, accounting for 52.4% and 47.6% of the country's total GDP, respectively. By 2016, the gap in GDP between the south and north reached its peak, with the southern region contributing 60.3% of the country's total GDP that year, while the share of the northern region declined from 47.6% in 1953 to 39.7%, a decrease of nearly 8 percentage points [1].

According to statistical data, the total number of secondary schools in Zhejiang Province reached 2,399 in 2021, while that in Gansu Province was only 99 [2,3]. According to the figures of two places which are typical southern and northern cities respectively, it is evident that there are significant disparities in the allocation of educational resources across different regions. To what extent do these disparities correlate with the economic development disparities in these areas?

Based on the statistical data of Gansu and Zhejiang provinces, this study aims to analyze the relationship between economic development and educational fairness, striving to place the analysis results under objective data verification.

2. The Influence of Economic Development on Educational Equity

At the very first, it is wise to clarify the relationship between economic growth and equity of education. This paper will commence with an exploration of how economic growth promotes or, conversely, hinders the equity of education, taking Zhejiang Province and Gansu Province as two examples.

Overall, there is a clear positive correlation between economic growth level and educational investment. This trend can be reflected in the statistics of Zhejiang Province and Gansu Province. Based on the compiled development data of Jiangsu Province, it is evident that from 2012 to 2020, the GDP per capita (Gross Domestic Product per capita) increased from 61,097 yuan (in 2012) to 100,738 yuan (in 2020). Simultaneously, the expenditure on education (exemplified by research and experimental development funding) rose from 72.259 billion yuan in 2012 to 185.859 billion yuan in 2020. Within this, government funding contributed 6.041 billion yuan and 16.495 billion yuan, respectively, while corporate support amounted to 53.941 billion yuan and 167.498 billion yuan during the same period [2].

This trend is also prominent in the recent statistical yearbooks of Gansu Province. In 2012, the per capita GDP of Gansu was 21,100 yuan, which steadily increased over the years, reaching 35,800 yuan by 2020. According to a report from the Ministry of Education's official website titled "Gansu Province actively promotes 'Internet + Education' to explore a distinctive path for the development of educational informatization," the province has invested a cumulative amount of 3.4 billion yuan over the past decade, significantly improving the educational information infrastructure in disadvantaged areas. The internet access rate for primary and secondary schools in the province has reached 100%, with 100% of schools having a bandwidth outlet of 100 Mbps or above [3].

The data presented above reconfirms the positive correlation between economic development and educational investment. Nonetheless, deciphering the underlying causes of this relationship is a multifaceted and intricate process, which can be examined from various perspectives, which will be analyzed below, together with the causes of uneven educational development between regions.

3. Differences in the Economic Development Level and Education Input in Different Regions

From the horizontal comparison of data between Gansu Province and Zhejiang Province, it is still obvious that the educational resources and investment in Gansu Province lag far behind those in Zhejiang Province, where the economy has developed rapidly. According to the official data of 2021, Zhejiang Province's general public budget education expenditure in 2020 was 187.97 billion yuan, while Gansu Province's general public budget education expenditure was only 66.299 billion yuan [4]. After the necessary analysis and integration of existing information, the reasons for the positive relationship between economic growth and investment in education are similar to the triggers of the difference in investment in education between Zhejiang and Gansu.

First of all, from the perspective of resource allocation, educational investment is a way of allocating economic resources in various fields of society. The level of economic development determines the amount of resources available for investment in education. When the economy improves, the government and society may be more willing to invest resources in education, as education is seen as an important driving force for sustained economic development.

The financial investment in education includes the provision of facilities and infrastructure, as well as the educational investment costs for the development and education personnel [2]. At the planning level, almost all education support measures, such as project socialization, facility procurement, implementation, supervision, and evaluation, require direct or indirect costs. Additionally, funding is one of the factors that affect the outcomes, although not the only one, in the government or private sector's direct or indirect efforts to achieve success in various educational agendas. This is because costs are the driving force behind various plans to achieve the set goals. In every effort to achieve educational objectives, whether quantitative or qualitative, the cost of education plays a decisive role. Almost all educational efforts cannot ignore the role of cost, so it can be said that without cost, the educational process in schools will not operate optimally [2].

As previously mentioned, it can be reasonably deduced that disparities in the financial budgets of two governments will inevitably result in varying degrees of investment in the field of education, subsequently leading to differences in the overall educational level. The difference in government budgets of the two places is related to the gap in economic development between the two places for a long time, and the reasons include geographical factors, historical factors, policy impacts, etc., which will not be analyzed in this paper. The second reason for the difference in the disparity between spending on education in the two regions is associated with requirements of society.

The economic development stage and industrial structure of different regions are significantly different. Developed regions usually have a more mature and diversified industrial structure, including high-tech industries, service industries, etc., so the demand for talent is more diversified and high-end. In contrast, less developed regions may still be dominated by traditional agriculture or primary manufacturing, with greater demand for skilled labor.

In addition, Gansu has seen a net outflow of population in the past ten years. Gansu's permanent population dropped from 25.575 million in 2010 to 25.020 million in 2022, according to the Bureau of Statistics. Demographic changes may also lead to an increase or decrease in the demand for human capital in specific fields. So in such case, the demand for higher education in Gansu would be less than that in Zhejiang with a large population.

Moreover, it is very interesting to realize the correct relationship between degree of aging and demand for talents of high-tech. Zhejiang is one of the provinces with a relatively high degree of aging in the country. By the end of 2022, there were 13.29 million permanent elderly residents in the province, accounting for 20.2% of the permanent population. (Data from the official website of Zhejiang Civil Affairs Bureau) Compared with the data from Zhejiang, the degree of aging is not that significant in Gansu. According to the data from Gansu Provincial Bureau of Statistics, by 2022, Gansu Province will have a permanent population of 250.198 million and an elderly population of 3.1478 million, accounting for 12.58 percent. Due to the greater degree of aging, the demand for high-tech development and well-educated population in Zhejiang will be greater than that in Gansu. The phenomenon can be explained as aging has led to greater (industrial) automation because it has created a shortage of middle-aged workers specializing in manual production tasks [3].

To sum up, the economic development gap between Zhejiang Province and Gansu Province will inevitably lead to the gap in educational investment, and also lead to the unfair distribution of educational resources.

4. The Role of Educational Equity on Economic Development

So far, this paper has discussed the impact of economic growth on the equity of education. At the same time, the resources and quality of education in different regions are also very crucial for the sustainable development of economy. To analyze the effect of educational equity on economic development, we can start from the following aspects:

First, this paper will discuss how educational equity can improve the quality of human capital. Equity in education means that everyone has equal access to education, thereby stimulating the potential of human capital and improving the knowledge and skills of the whole society. By training more highly qualified people, equity in education promotes innovation and technological progress, improves productivity, and injects momentum into economic development. An existing study has employed both nonparametric and semiparametric techniques to analyze a dataset encompassing 100 countries from 1970 to 2014 [4]. The research investigates nonlinear impacts on economic growth, focusing on two indices of human capital stock. It assumes both perfect and imperfect substitutability between skilled and unskilled labor. The empirical results obtained for both indices indicate that the influence of human capital on countries' economic growth rates is positive and statistically significant [4].

Secondly, it analyzes the role of educational equity in narrowing the gap between the rich and the poor and promoting shared development. An unfair education system may lead to a serious imbalance in educational resources, making it impossible for vulnerable groups to enjoy high-quality education, thus widening the gap between the rich and the poor. And then the gap between the rich and the poor will affect the performance of education again. Based on data from India and Pakistan, people can find achieving equal grade attainment among children from different socio-economic backgrounds would result in limited progress towards universal numeracy, closing only a fraction of the existing gap, ranging from 8% in India to 25% in Pakistan [5]. Even if complete equality in grade attainment and learning achievement were achieved, children from poorer households would still fall short of the equity goal of universal numeracy and literacy [5]. Educational equity helps to break down this educational disparity, ensure that everyone has an equal opportunity to pursue quality education, and realize the shared development of society.

In addition, the impact of educational equity on social mobility should be studied. Social mobility serves as a crucial yardstick for evaluating fairness and social justice, particularly in the context of modern liberal democracies, where the concept of equality of opportunity holds paramount importance. On a more practical level, policymakers frequently regard it as a driving force behind economic growth and social cohesion [6,7]. Equity in education provides equal opportunities for everyone to pursue their dreams and goals, regardless of their background. This increase in social mobility helps reduce social inequality and social conflicts, and creates a more stable social environment for economic development.

Finally, consider the long-term impact of educational equity on economic development. Educational equity is not only related to the current economic situation, but also has a profound impact on the future accumulation of human capital, innovation ability and social stability. By promoting equity in education, people can lay a solid foundation for sustainable economic development [8].

To sum up, the analysis of the effect of educational equity on economic development requires comprehensive consideration of the improvement of human capital, the narrowing of the gap between the rich and the poor, the increase of social mobility, and the long-term impact [9]. Through the in-depth study of these aspects, people can understand the important role of educational equity in economic development more comprehensively.

5. Conclusion

In conclusion, the essay has examined the interaction and correlation between educational equity and economic development. By utilizing the statistical data from Gansu Province and Zhejiang Province as the foundation for analysis, it highlights the substantial and direct influence of disparate economic development levels on the allocation of educational resources and scrutinizes the potential factors underlying this phenomenon. Economically advanced regions tend to possess more comprehensive and sophisticated educational resources, which is intimately connected to fiscal budgets, societal demands, and demographic structures. Furthermore, this research delves into the adverse impact of educational equity on economic development. Educational equity enhances the caliber and productivity of human resources, labor force, and fosters social mobility, inequality, and class conflicts across various aspects of society. Consequently, educational equity holds significant importance in promoting the sustainable and stable growth of the economy.

Finally, a number of important limitations need to be considered. First, the current study has only analyzed the obvious relationship between economic growth and educational equity and the possible reasons behind it. But it is unfortunate that the study did not include the specific measures to address the social problem of unequal education, nor does it offer reasonable suggestions for promoting sustainable economic development and resolving the gap between rich and poor.

The question raised by this study is that if the disparity in economic development levels among various regions results in varying educational investments, and these disparities in educational attainment contribute to differences in future human resources and the capacity for sustainable development in these regions, then how this cycle should be addressed, and from what point this cycle should be alleviated.

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