Comparative Study on the Financial Investment Mechanism of Compulsory Education in Jiangxi Province and Anhui Province

Jiaxin Pi

Business School, Shandong University, Weihai, Shandong, China

202100620442@mail.sdu.edu.cn

Abstract. How to optimize the financial investment mechanism for compulsory education has received widespread attention, but many provinces in China still face shortcomings in this field. This article compares the financial investment mechanisms for compulsory education in Jiangxi Province and Anhui Province, and it reveals that Anhui Province has formed a relatively well-developed financial responsibility allocation mechanism through provincial coordination and a transfer payment system, while enhancing the efficiency of fund utilization via performance management. In recent years, Jiangxi has increased investment and gradually raised its financial supply level. However, its system remains dominated by county-level finance, with an imperfect transfer payment system and relatively weak performance management, resulting in deficiencies in the balance and resource efficiency of education finance. Based on these findings, this article proposes the following suggestions: Firstly, elevate the level of fiscal supply and optimize the investment structure; Secondly, improve the system of fiscal responsibility allocation and transfer payment; Thirdly, establish a comprehensive performance management system to enhance the efficiency of education fund utilization; Fourthly, promote coordination between financial investment and national policies.

Keywords: Compulsory Education; Financial Investment Mechanism; Comparative Study.

1. Introduction

As the core component of the basic education system, compulsory education directly impacts the improvement of national quality and the realization of social equity. Financial investment serves as the key factor in ensuring the quality and fairness of compulsory education [1]. Previous studies have shown that sustained investment and rational allocation of public finances in education can effectively improve educational quality, promote educational equity, and overall social development [2]. In recent years, China has continuously improved its funding guarantee mechanism for compulsory education, and the steady growth of per-student fiscal expenditure has significantly promoted the balanced development of compulsory education [3].

Previous studies indicate that with the continuous increase of per-student fiscal expenditure and the balanced development of compulsory education between regions, the inequalities in inter-provincial education fiscal investment have been reduced [4]. Both domestic and international scholars generally believe that the adequacy, balance, and efficiency of educational financial investment are key factors determining the quality and equity of compulsory education: Sufficient funding is a prerequisite for improving educational quality; The balance of educational funding is closely related to education equity. Significant differences in financial resources exist across different regions in China, leading to regional imbalance in education investment. Central and provincial financial transfers are considered important tools for narrowing regional disparities [5]. Research indicates that economic development levels and urbanization significantly promote efficiency, while a high proportion of state-owned economy can inhibit efficiency [6].

Due to differences in fiscal coordination capacity, educational resource allocation, and funding efficiency among regions, how to optimize the fiscal investment mechanism has become a critical topic in education finance research. In this context, Jiangxi and Anhui are selected for comparison based on similarities in geographical location, economic level, population, and compulsory education funding, with enormous distinct in educational financial mechanisms.

2. Current Status of Financial Investment in Compulsory Education in Two Provinces

2.1. Comparison of Compulsory Education Achievements Between Two Provinces

2.1.1 Comparison of the number of counties (cities, districts) achieving high-quality and balanced development of compulsory education

Since 2021, the General Office of the Ministry of Education has decided to establish high-quality and balanced compulsory education at the county level. By the end of 2024, Anhui has 15 counties (cities, districts) achieving high-quality and balanced development in compulsory education, while Jiangxi Province has only 4 [7].

This indicates that Anhui has achieved remarkable results in building high-quality and balanced education, successfully realizing such development in multiple counties (cities, districts). Jiangxi lags in the construction of counties (cities, districts), achieving high-quality and balanced compulsory education. Based on the theoretical analysis mentioned in the previous section, it may be due to its lack of a relatively complete transfer payment system, resulting in significant disparities in compulsory education resources across regions.

2.1.2 Comparison of full-time teacher numbers and quality in compulsory education

The development of full-time teaching staff is a key indicator for measuring educational outcomes, and optimizing the allocation of compulsory education teaching resources constitutes a fundamental task in promoting the construction of an education powerhouse [8]. Overall, Anhui demonstrates superior development of its full-time teaching staff in compulsory education compared to Jiangxi.

Table 1. Comparison of full-time teachers in compulsory education (unit: persons) [9].

	Primary School		Junior High School	
	Jiangxi	Anhui	Jiangxi	Anhui
2019	238475	255415	136570	162358
2020	242233	260425	145462	165538
2021	245240	269012	150983	170244
2022	242473	269668	152405	171110
2023	238843	268243	155780	169734

As shown in Table 1, despite slight declines in the number of full-time primary school teachers in Jiangxi during 2021-2023 and in both primary school and junior high school teachers in Anhui during 2022-2023, the overall trend remains one of steady growth.

The quality of the full-time teaching staff can be reflected by the proportion of teachers with bachelor's degrees or higher.

Table 2. Percentage of full-time teachers in compulsory education with bachelor's degrees or higher (unit: %) [9].

	Jiangxi	Anhui	Nationwide
Primary School	70.5	75.7	78.03
Junior High School	87.6	92.7	93.09

As shown in Table 2, Anhui outperforms Jiangxi in both the number and educational levels, reflecting its emphasis on the simultaneous improvement of both quantity and quality of the teaching staff in its educational financial investment. Jiangxi, however, exhibits slight shortcomings in teacher quality, especially primary school teachers. Concurrently, the educational levels of teachers in both provinces are below the national average, indicating a need for sustained focus on improving teacher quality, and the construction of full-time teaching staff in compulsory education still requires further strengthening.

2.1.3 Comparison of compulsory education infrastructure construction

There are significant differences in the focus of hardware improvement in compulsory education between the two provinces. Anhui focuses on enhancing the safety and addressing weaknesses of existing school buildings, with education infrastructure primarily guided by improving education quality. Jiangxi, by contrast, emphasizes expanding enrollment capacity, improving service supply, tackling large class sizes, and consolidating school completion rates, remaining in a phase centered on ensuring basic supply.

For instance, by the end of July 2023, Anhui had completed 1901 school building safety repair and renovation projects, covering 2.6263 million square meters, with an investment of 1.231 billion yuan. Among the planned 1138 projects to address weaknesses and enhance capacity in compulsory education, 73.9% had been completed by that date [10].

In the same year, the central and provincial finance departments of Jiangxi Province allocated 2.267 billion yuan in subsidies and special funds to support and enhance the construction and renovation, adding more than 200 thousand new compulsory education seats. A risk warning mechanism for educational resource allocation was established, employing methods such as utilizing idle school buildings, purchasing private school seats, and implementing multi-school zoning to effectively address phased and regional imbalances between educational supply and demand in areas with concentrated population inflows [11].

From these data, it can be seen that under similar geographical and economic conditions, Anhui has achieved superior outcomes in compulsory education compared to Jiangxi. This study will next reveal the reasons behind this difference by comparing the educational funding mechanisms of the two provinces.

2.2. Comparison of Financial Investment Mechanisms for Compulsory Education in Two Provinces

When comparing the compulsory education funding mechanisms of Jiangxi and Anhui, analysis can be conducted across three dimensions: adequacy, balance, and efficiency of financial investment.

2.2.1 Adequacy

The adequacy of financial allocations for compulsory education schools in China can be defined as "The minimum cost or expenditure level required to meet the established performance standards for every student in every school within a county" [12]. This article presents a comparative line chart of compulsory education funding between Jiangxi and Anhui from 2017 to 2023, using per-student general public budget education expenditure as the indicator.

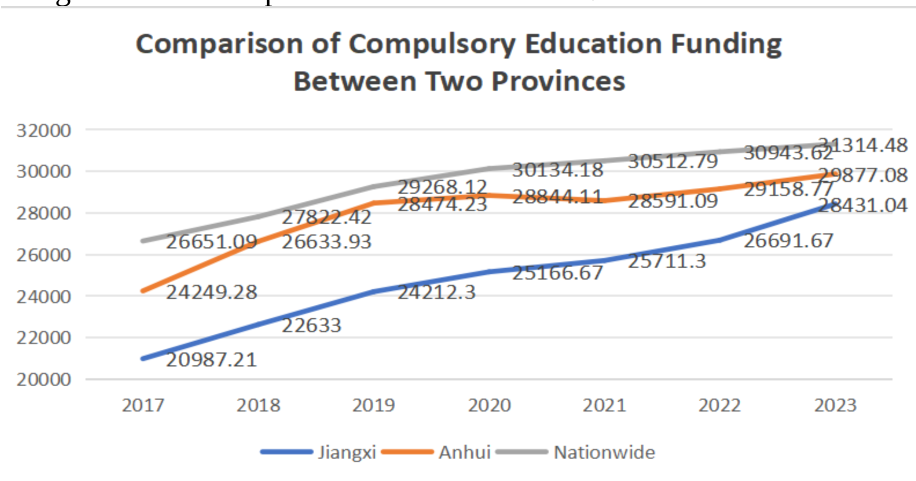

Fig. 1 Comparison of compulsory education expenditure between two provinces, 2017-2023 (line chart) [9].

As shown in Fig. 1, from 2017 to 2023, both provinces maintained a steady upward trend in compulsory education funding, with the exception of a slight decrease in Anhui's per-student general public budget education expenditure in 2021. In terms of growth rates, Anhui's growth has slowed since 2019, with a slight decline in 2021. Overall, the growth rate in Jiangxi has been relatively stable and higher than that in Anhui. The higher growth rate in Jiangxi is the primary reason for the gradual narrowing gap between the two provinces. In conclusion, Anhui has maintained a consistently high level of investment over the long term, reflecting the stability and sustainability of its financial support. The catch-up trend of Jiangxi in recent years indicates that it has increased its investment in education in accordance with national policies.

2.2.2 Balance

Research indicates that centralized fiscal models are more conducive to narrowing the regional gap in educational resources, while decentralized models lacking sound transfer payment systems tend to exacerbate such gaps [13]. Relatively speaking, Anhui's transfer payment system is more in line with educational equity objectives, while Jiangxi's fiscal allocation mechanism remains more traditional, which exhibits significant shortcomings in regional coordination capacity and balanced resource distribution, with an imperfect transfer payment system contributing to overall education development imbalances.

In 2023, Jiangxi issued policy documents emphasizing that municipal and county finance and education departments must establish sound internal management mechanisms in accordance with relevant budget management regulations. This ensures funds are allocated in compliance with national standards, strengthens the construction of campus safety facilities, and supports improvements of basic educational conditions in rural schools to achieve high-quality and balanced development of compulsory education [14]. For example, in 2023, Jiangxi allocated 395 million yuan to support local implementation of policies, including the reform of compulsory education funding guarantee mechanisms, long-term school building safety guarantee mechanisms, free textbooks, and rural student nutrition programs. Additionally, starting from the spring semester of 2023, Jiangxi increased the per-student operational funding benchmark for compulsory education schools [14]. While the increase helps narrow the gap in educational conditions between urban and rural areas, Jiangxi still relies mainly on county-level finances, and its transfer payment system remains imperfect, which can exacerbate the gap in educational resources, indicating that the balance of Jiangxi's financial investment still needs improvement.

Anhui standardized the use of subsidies for improving weak links and enhancing abilities in compulsory education in 2019 [15]. Anhui annually allocates transfer payments to advance improvements in rural compulsory education and ensure institutional parity in basic funding between urban and rural areas. For instance, in 2024, Anhui allocated 1.389 billion yuan in central subsidies for this purpose, ensuring 100% compliance in construction project quality and equipment procurement standards, achieving 100% completion of annual plans for school building construction, significantly improving school operating conditions, effectively improving the educational standards of under-performing schools, and promoting high-quality, balanced educational development [16]. In contrast, Anhui's mechanism for promoting balanced compulsory education through provincial coordination and transfer payment systems is more mature, with a higher fiscal investment balance.

2.2.3 Efficiency

The efficiency of educational finance utilization refers to the ratio between actual output and maximum possible output under the premise of established investment and

allocation [17]. Academic circles mainly employ methods like DEA and SFA to measure the efficiency of fiscal fund utilization [18]. This paper adopts the perspective of policy performance, focusing on the fund implementation rates and fiscal performance management mechanisms.

Anhui stipulates that, in terms of compulsory education, the funds for routine matters such as school operations shall be shared proportionally among central, provincial, and sub-provincial governments. The central and provincial shares are arranged through transfer payments for jointly administered fiscal responsibilities. Funding for phased tasks and specialized work shall be coordinated by sub-provincial governments, with central and provincial governments providing unified support through transfer payments [19]. This reflects that Anhui has already established a relatively comprehensive "provincial coordinated transfer payment" mechanism as early as 2019. Based on the division of powers, this mechanism enables provincial-level fiscal leadership, allowing for more flexible and effective utilization of education funding. In addition, Anhui employs performance management methods to conduct self-evaluation of fund utilization, to improve resource efficiency. For example, Anhui's 2024 performance self-assessment report summarizes reasons for performance deviations and improvement methods through the decomposition of performance goals and analysis of performance outcomes, which significantly promotes the rational and efficient use of transfer payments for improving weak links and enhances capabilities in compulsory education. The report shows that the completion rates of multiple indicators in Anhui have reached over 90% in 2024, reflecting high efficiency in the use of education funding [16].

Jiangxi similarly issued policies in 2019, emphasizing balanced development of compulsory education, requiring localities to prioritize compulsory education as the core focus of education investment, fully incorporating it into public financial security, and effectively implementing governmental primary responsibility [20]. Unlike Anhui, Jiangxi has not publicly released performance evaluation reports for compulsory education funds, providing only a general performance evaluation index table [16]. This suggests that Jiangxi has yet to establish a mature financial performance management mechanism. In contrast, Jiangxi's education financial investment remains more traditional, centered on fund supervision and maintaining the dominant role of county-level investment.

3. Suggestions for Improving Financial Investment Mechanisms

Given that both Anhui and Jiangxi rank at the national average in terms of economic development and educational expenditure, the suggestions for their educational financial investment mechanisms have certain transferability. Based on the comparative analysis in the previous section, this study has compiled the following universal recommendations:

3.1. Improve the Level of Fiscal Supply

Provinces that have not yet achieved the requirements for sufficient education funding need to further increase the proportion of education expenditures within their local budgets, thereby strengthening the stability and sustainability of investments. Provinces that have largely met the adequate funding level should continue to increase investment while maintaining high supply levels, optimizing investment structure, and avoiding excessive concentration on hardware construction, such as strengthening support for emerging fields like teacher training and educational digitization.

3.2. Optimize Fiscal Responsibility Allocation

For provinces that still rely on county-level finance predominantly, the share of provincial finances in compulsory education funding should be gradually increased to alleviate the county fiscal burdens. They should also learn from Anhui to establish more comprehensive financial responsibility allocation mechanisms and robust "provincial-level coordinated transfer payment" systems to narrow the regional gaps among counties and promote high-quality, balanced educational development.

3.3. Improve Performance Mechanisms

Currently, many provinces still lack systematic performance evaluation mechanisms for financial investment. On the basis of fund supervision, provinces should learn from Anhui to establish robust performance evaluation systems, which should be grounded in educational quality monitoring outcomes, linking fiscal funding to improvements in educational results to enhance the efficiency of educational funding. Provincial governments can regularly publish performance evaluation results through financial information disclosure platforms, accepting social supervision to ensure transparency in the use of fiscal funds.

3.4. Policy Synergy

The effectiveness of fiscal investment depends not only on the scale of funding but also on its alignment with national education policies. While learning from provincial-level coordination and performance evaluation practices, provinces should combine financial investment with strategies such as the "Double Reduction" policy and educational modernization. For example, in response to the "Double Reduction" policy, it is necessary to increase investment in after-school services, on-campus club activities, and other aspects, to establish a financial investment system more suited to China's national conditions and narrow the gap between China's educational standards and the international benchmarks.

4. Conclusion

This study systematically compares the financial investment mechanisms of compulsory education in Jiangxi and Anhui from three dimensions: adequacy, balance, and efficiency of financial investment. Research has found that, overall, Anhui's fiscal investment mechanism is more in line with the goal of high-quality development of compulsory education in terms of stability, balance, and efficiency. While Jiangxi is catching up, its fiscal coordination ability and performance evaluation mechanisms still require improvement. This difference not only reflects differences in financial strength and institutional arrangements between the two provinces, but also reveals the key role of financial mechanisms in promoting the development of education quality.

While this study has achieved certain results in comparing the financial investment mechanisms of compulsory education in Jiangxi Province and Anhui Province, there are still some limitations: The research mainly refers to the financial data and relevant policies of compulsory education in Jiangxi Province and Anhui Province from 2017 to 2023. In the future, comparisons can be conducted in a longer time span or among more central and western provinces to reveal the characteristics of education financial mechanisms in different regions.

References

[1] Hu Y, Yuan J. Research on the Perfecting of the Funds Ensuring Mechanism of Compulsory Education During the "14th Five-Year Plan" Period.. Education & Economy, 2021, 37(01): 57-66.

[2] Hu Y, Zhou W. Adequacy and Fairness: an Empirical Study of Financial Investment in Compulsory Education in China under the Guidance of Quality and Balance. Education & Economy, 2024, 40(03): 69-78+87.

[3] Li B, Huang B, Wang D. Retrospect and Prospect: 70 Years of Compulsory Education Financial System in China. Journal of Central China Normal University (Humanities and Social Sciences), 2019, 58(06): 35-44.

[4] Qi C, Fann X. Balanced Financial Investment in Compulsory Education Promotes a Powerful Country of Education. Journal of Central University of Finance & Economics, 2023, (10): 3-12.

[5] Zhang R. The Effect of the Central Government's Policy on Promoting Financial Equity for Compulsory Education. Tsinghua Journal of Education, 2020, 41(01): 44-54.

[6] Yu Z, Zhu N, Zheng Y. Efficiency of Public Educational Expenditure in China. Copenhagen Discussion Papers, 2013.

[7] Ministry of Education of the People's Republic of China. Notice of the Ministry of Education on Publishing the List of Counties (Cities, Districts) for High-Quality and Balanced Development of Compulsory Education in 2024, 2025. Retrieved from http://www.moe.gov.cn/srcsite/A11/moe_1789/202503/t20250320_1183923.html

[8] Hu Y, Liu Y, Zhao P. Subject Teacher Allocation Standards and Demand Projections for Urban and Rural Compulsory Education in China under the Strategy of Building an Educational Powerhouse. Journal of the Chinese Society of Education, 2025, (06): 15-23.

[9] Ministry of Education of the People's Republic of China. Education Statistics Data, 2023. Retrieved from http://www.moe.gov.cn/jyb_sjzl/

[10] Anhui Provincial Department of Education. Brief Report on the Progress of Basic Education Project Construction as of the End of July, 2023. Retrieved from https://jyt.ah.gov.cn/public/7071/40668618.html

[11] Li F. Vigorously Promoting a Strong Province of Science and Education to Deliver People-satisfying Education. Jiangxi Daily, 2023-10-25 (002).

[12] Li X, Zhang L, Tong Z. Adequacy Estimation of Financial Appropriation in Compulsory Education Schools in Counties: Data Envelopment Analysis Based on B, S, and J County Primary Schools. Education & Economy, 2021, 37(04): 72-80.

[13] Yu W, Ma H. Expenditure Responsibility Assignment and High-Quality Equity of Compulsory Education--Empirical Analysis Based on OECD Countries. Sustainability, 2022, 14, 10647.

[14] Jiangxi Provincial Department of Finance. Jiangxi Provincial Department of Finance Government Transparency, 2023. Retrieved from https://jxf.jiangxi.gov.cn/jxsczt/zfxxgk/index.html

[15] Circular of Anhui Provincial Department of Finance and Anhui Provincial Department of Education on Printing and Issuing Measures for Administration of Subsidies for Addressing Weaknesses of Compulsory Education and Improving Capacity. Gazette of the People's Government of Anhui Province, 2019, (19): 30-32.

[16] Anhui Provincial Department of Education. 2024 Annual Performance Self-evaluation Report of the Transfer Payment Funds for Improving Weak Links and Enhancing Capacity in Compulsory Education, 2025. Retrieved from https://jyt.ah.gov.cn/public/7071/40746819.html

[17] Cheng J, Wei Z. The Analysis Framework of Compulsory Education Financial System in China--Based on the Institution Coupling and Performance. Forum on Contemporary Education, 2020, (06): 64-70.

[18] Miningou É W. Quality Education and the Efficiency of Public Expenditure. A Cross-Country Comparative Analysis, 2019.

[19] Circular of Anhui Provincial Department of Finance on Printing and Issuing the Implementing Program for the Reform of Dividing Fiscal Management Powers and Expenditure Responsibilities in the Education Sector. Gazette of the People's Government of Anhui Province, 2019, (21): 25-30.

[20] Implementation Opinions of the General Office of the People's Government of Jiangxi Province on Further Adjusting and Optimizing the Structure to Enhance the Efficiency of Educational Funding Utilization. Gazette of the People's Government of Jiangxi Province, 2019, (04): 20-27.