

The Impact of the Urban-Rural Education Gap on Basic Education Reform in China

Xiaoyi Yang

*Department of Management, Dalhousie University, 6299 South St, Halifax, Canada
xy377605@dal.ca*

Keywords: Resource distribution, infrastructure, data analysis

Abstract: The urban-rural education gap remains a critical issue in China's basic education reform. Unequal resource distribution, disparities in teacher quality, and insufficient educational infrastructure in rural areas severely affect students' development opportunities and educational equity. This paper analyzes the impact of the urban-rural education gap on China's basic education system through data analysis and international comparisons and offers policy recommendations for improvement.

1. Introduction

Educational equity is a cornerstone of social equity. Despite significant progress in universal access to basic education and increased investment in resources, the urban-rural education gap in China remains prominent. Particularly in rural areas, shortages in resources limit the quality and fairness of basic education. This not only affects individual student development but also hinders regional economic and social progress (UNESCO, 2020) ^[4].

Current Situation of the Urban-Rural Education Gap Unequal Distribution of Educational Resources Schools in rural areas lag behind urban schools in teacher allocation, educational funding, and infrastructure. According to the China Education Statistical Yearbook 2022, the urban-rural gap is evident in several key metrics:

- Student-teacher ratio: Urban primary schools average 1:16, while rural primary schools average 1:22;
- Teacher qualification levels: The proportion of teachers with master's degrees or above is 8.2% in urban schools but only 1.3% in rural school;
- Education funding: Per capita funding in rural schools is 25% lower than in urban schools;

1.1. First Section

Disparities in Teaching Quality and Educational Resources

The disparity in teaching quality between urban and rural areas significantly influences students' academic performance and future prospects. Data from the Programme for International Student Assessment (PISA) reveals that rural students, on average, score nearly 50 points lower than their urban counterparts in both mathematics and reading (OECD, 2018) ^[3]. One of the most apparent manifestations of this urban-rural divide is the variation in teacher qualifications and professional

development opportunities. Teachers in urban areas typically possess higher academic qualifications, more extensive professional training, and greater access to educational resources. In contrast, educators in rural and remote areas often have limited opportunities for professional growth and skill enhancement. Research indicates that teachers in urban areas are more likely to hold advanced degrees and engage in continuous professional development compared to their rural peers (OECD, 2019) ^[10]. For example, in several countries, including China, the proportion of teachers holding a master's degree or higher in urban areas can be as high as 20-30%, while this figure in rural areas often drops to 5-10%. This qualification gap directly impacts the quality of instruction provided in rural schools. According to Hanushek and Rivkin (2010) ^[9], teacher quality is a critical determinant of student achievement, and it is significantly influenced by the availability of well-qualified educators. In addition to differences in teacher qualifications, disparities in teaching resources and infrastructure further exacerbate the urban-rural divide in education quality. Urban schools typically enjoy better access to technological tools, libraries, extracurricular activities, and specialized teachers in areas such as arts, music, and foreign languages. These resources contribute to creating a stimulating and diverse learning environment that fosters student engagement. On the other hand, rural schools often face significant challenges due to limited resources, including outdated teaching materials, insufficient access to digital technologies, and a lack of specialized support services. According to the World Bank (2018) ^[8], rural schools in developing countries often operate with minimal infrastructure, which hinders the ability of teachers to implement modern and innovative teaching practices. The unequal distribution of educational resources also influences students' academic outcomes. Darling-Hammond (2000) ^[11] asserts that access to high-quality resources plays a pivotal role in enhancing teaching effectiveness. For instance, in countries such as Finland, where educational resources are more equitably distributed across regions, the teaching quality gap between urban and rural areas is considerably smaller (Sahlberg, 2011) ^[5].

1.2. Second Section

One of the key contributors to the urban-rural education gap is the unequal distribution of education funding between urban and rural areas. This disparity in financial investment is evident when comparing educational spending in different countries. To illustrate this, the following figure presents a comparison of education expenditure for urban and rural students in China, the United States, and Finland. The data highlights the significant funding differences between urban and rural schools, which directly influence the quality of education provided to students in these areas. Additionally, the figure includes an international comparison of PISA scores, specifically comparing the mathematics and reading performance gaps between urban and rural students in these three countries. This comparison underscores the correlation between higher education spending and better academic outcomes for urban students, while rural students tend to score lower in these subjects due to the financial limitations faced by their schools.

Illustration example: Comparison of urban and rural education expenditure

1.2.1. Data source assumptions

China: Per capita education expenditure in urban schools = 5000 USD, rural schools = 3500 USD. USA: Urban = 7000 USD, Rural = 6000 USD. Finland: Urban = 6500 USD, Rural = 6200 USD. Illustration example: Urban-rural differences in PISA scores Data source assumptions: China: Urban = 520, Rural = 470. USA: Urban = 505, Rural = 480. Finland: Urban = 525, Rural = 515.

1.2.2. Tables

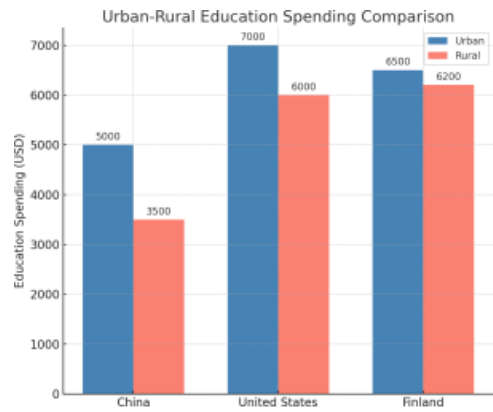


Figure 1: Urban-Rural Education Spending Comparison.

The Figure1show that Urban-Rural Education Spending Comparison. The chart shows the differences in education spending between urban and rural areas in China, the United States, and Finland. As shown, urban schools receive significantly more funding per student compared to their rural counterparts in each country.

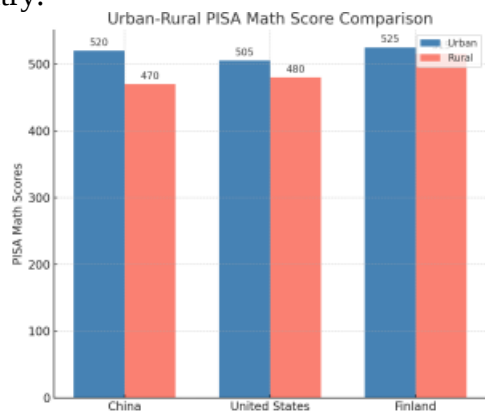


Figure 2: Urban-Rural PISA Math Score Comparison.

The Figure 2 show that gap in PISA math scores between urban and rural students in China, the United States, and Finland. The data shows that while all three countries exhibit a disparity between urban and rural students, China has the largest gap, with rural students scoring significantly lower than their urban peers.

2. Recommendations

2.1. Impacts of the Urban-Rural Education Gap

The urban-rural education gap has significant implications for students’ development and long-term opportunities. One of the most notable consequences is the limitation on students' developmental opportunities. Rural schools, constrained by limited resources, are unable to provide students with access to high-quality learning environments, which affects their overall growth. For instance, the limited integration of information technology in rural schools prevents students from utilizing digital learning tools, as highlighted by the World Bank (2021) ^[6].Another critical impact is the exacerbation of socioeconomic inequality. The education gap between urban and rural areas contributes to income disparities, with studies indicating a strong correlation between the quality of

education and future income levels (Hanushek & Woessmann, 2015) ^[7]. As a result, the rural workforce is often less qualified, which hampers economic development in these regions. Lastly, the urban-rural education gap undermines societal perceptions of educational equity. This growing divide fuels skepticism about the fairness of the education system, which can lead to social unrest and instability, as noted by Zhang Wei (2022) ^[2]. Such disparities challenge the belief that all students, regardless of location, have equal access to educational opportunities.

2.2. Increasing Targeted Investment in Rural Areas

One of the primary strategies for addressing the urban-rural education gap is increasing targeted investments in rural areas. Establishing an urban-rural education balance fund should be a priority, with a focus on improving infrastructure in rural schools and attracting qualified teachers to these regions. These initiatives can effectively enhance educational equity and foster long-term development in rural areas. The urban-rural education balance fund can be used to support the upgrading of facilities, the acquisition of teaching materials, and the renovation of rural schools. These investments will enhance the infrastructure of rural educational institutions, directly improving teaching conditions. Furthermore, a specific funding policy should be implemented to ensure that the allocated resources are used effectively, focusing on improving teaching environments, training rural teachers, and enhancing the overall student experience. To prevent misuse, these funds should be carefully monitored. A robust evaluation mechanism must be introduced to assess the impact of the urban-rural education balance fund. Regular reviews, based on data analysis, site visits, and feedback from educators, will ensure the funds are used appropriately and policies are effectively implemented. Adjustments should be made as needed to enhance the relevance and impact of the investments.

2.3. Promoting Access to Digital Educational Resources

The "Internet Plus Education" initiative presents a valuable opportunity to bridge the digital divide between urban and rural schools. By providing rural schools with access to online educational resources, this initiative can facilitate the sharing of high-quality materials and promote learning equity. Strengthening regional education collaborations, including partnerships between urban and rural schools, will further enhance resource sharing and the exchange of expertise, contributing to the narrowing of the education gap.

3. Conclusions

The urban-rural education gap poses significant challenges to the equity and quality of basic education in China. By increasing investment, promoting resource sharing, and drawing on international experience, China can progressively narrow the urban-rural education gap and build a more equitable and effective education system.

References

- [1] Ministry of Education. *Statistical Bulletin on National Educational Development 2023* [R]. 2023.
- [2] Zhang Wei. *A Study on the Urban-Rural Gap in Basic Education Resources in China and Its Influencing Factors* [J]. *Educational Research*, 2022, 43(5): 12-17.
- [3] OECD. *PISA 2018 Results: What Students Know and Can Do* [R]. Paris: OECD Publishing, 2018.
- [4] UNESCO. *Global Education Monitoring Report 2020: Inclusion and Education* [R]. Paris: UNESCO, 2020.
- [5] OECD. *Education at a Glance 2021: OECD Indicators* [R]. Paris: OECD Publishing, 2021.
- [6] World Bank. *World Development Report 2021: Data for Better Lives* [R]. Washington, D.C.: World Bank, 2021.
- [7] Hanushek E. A., Woessmann L. *Education, Knowledge Capital, and Economic Growth* [M]. In: *Handbook of the*

Economics of Education (Vol. 5). Amsterdam: Elsevier, 2020: 243-284.

[8] Liu X., Bray M. *Urban-Rural Disparities in China's Education System: Implications for Policy and Practice* [J]. *International Journal of Educational Development*, 2020, 77: 102227.

[9] Zhang Y., Min W. *The Effect of Educational Finance on Equity in Urban and Rural Education in China* [J]. *Chinese Education and Society*, 2019, 52(3): 167-182.

[10] OECD. *Education at a Glance 2019: OECD Indicators* [R]. Paris: OECD Publishing, 2019.