

A Comparative Study on the Influence of Chinese and American Education Systems on Regional Economy

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Abstract: This paper explores the comparison of Chinese and U.S education systems, discussing the advantages and disadvantages, and these problems will lead to the regional economic difference. It highlights case studies and evaluates characters. The study concludes with the equal educational problem leading to the regional economic disparities. This study shows that college students choose to take student loans in order to enter good universities, and the impact of this is that they are more likely to work in cities with more developed industries after graduation, so as to get a higher salary to repay the student loans. For China, college students will be more inclined to stay in advanced cities, because living in these cities can not only get a higher salary, but also get more policy and education benefits for their next generation. However, as time goes by no matter in U.S or China, poorer cities will lose a lot of excellent talents, affecting the economic growth of these cities, and thus the degree of regional economic differentiation will gradually deepen. This study aims to explore the relationship between an equal education system and Regional economy. It hypothesizes that equal education systems lead to some loss of human resources and cause backward economic development.

Keywords: Regional economy, unequal education system, economic development.

1. Introduction

Education is a powerful force driving social progress. However, the education systems in China and the United States differ significantly in their characteristics, strengths, and weaknesses. Each has its unique features and advantages. These days, the problem of expensive tuition fees in U.S. and unequal education resources in China has been realized. One study provides a reason why college is so expensive these days is the competition for talent. Students are competing in a global economy, and if they want to receive the best education, schools are literally competing with universities and employers from around the globe. Compared to earlier times, students now face higher costs for health insurance, expensive faculty, and expanded services like counseling[1], the other one explored that community colleges do not receive more subsidies from local funds. However, whether community colleges can directly receive support from local funds will directly affect students' educational opportunities and debt situation after graduation. Therefore, students in community colleges that lack support from local funds often face higher tuition and debt[2]. A study shows that economically developed areas attract more people to migrate, causing less developed areas to experience population loss. Therefore, to meet people's educational needs, the government needs to allocate more

educational resources to economically developed areas, while, conversely, resources for less developed areas will continue to decrease[3].

This article will explore the differences, strengths, and disadvantages of the education systems in China and the U.S. In general, the education systems of China and the U.S are very different. For China, it is more inclined to basic education, and China's entrance university examination system is especially, the university admission standards for students in each region are different. what's more the U.S pays more attention to quality education. They will offer students a wide range of courses to choose from. and U.S universities will pay attention to students' interests and hobbies when they select students. Therefore through these differences between U.S.and China, a problem can be discovered, these unequal problems will lead to the regional economic differences. This study offers valuable insights for policymakers in addressing equal education system that can result in regional economic development with small disparities.

2. The overview of educational system between U.S. and China

2.1. U.S. educational system advantages and disadvantages

The strength of the U.S. education system lies in its focus on enhancing students' interests, practical operations, and a variety of electives such as AP courses. The U.S. education system promotes student interest by offering a wide range of courses, especially during the early years, allowing students to choose subjects they are passionate about and develop them into specialties. In terms of practical operation, the U.S. system favors learning through practice and encourages students to draw conclusions through their own research[4]. Lastly, the curriculum is rich in diversity. In some U.S. high schools, there are 38 subjects to choose from, including arts, English, social sciences, mathematics, and computer science. Additionally, if students perform well in AP exams, they can earn college credits, which helps reduce the number of courses needed in college and shortens their time in university. This style of education effectively reduces the academic pressure on U.S. college students, as they already have a basic understanding of university-level subjects in high school and can better navigate their chosen academic disciplines.

However, there are some drawbacks to the U.S. education system. The most notable drawback is the high tuition fees at U.S. universities. The soaring tuition costs force many students from average-income families to take out student loans to complete their education. There are several reasons for this. First, students and parents increasingly demand access to quality educational resources, believing that attending a prestigious school will lead to a high-paying job. Thus, students and families are willing to pay high tuition fees as an investment in their future. Meanwhile, universities, in order to maintain their reputations and competitiveness, continuously invest capital to improve their teaching quality and research capabilities, thus attracting students. Another contributing factor is that U.S. government loan policies are relatively lenient. Students can easily apply for loans to cover tuition fees with repayment periods of up to 10-25 years. This policy implicitly assumes that students will be able to pay the high tuition fees, allowing universities to continually raise tuition prices[5].

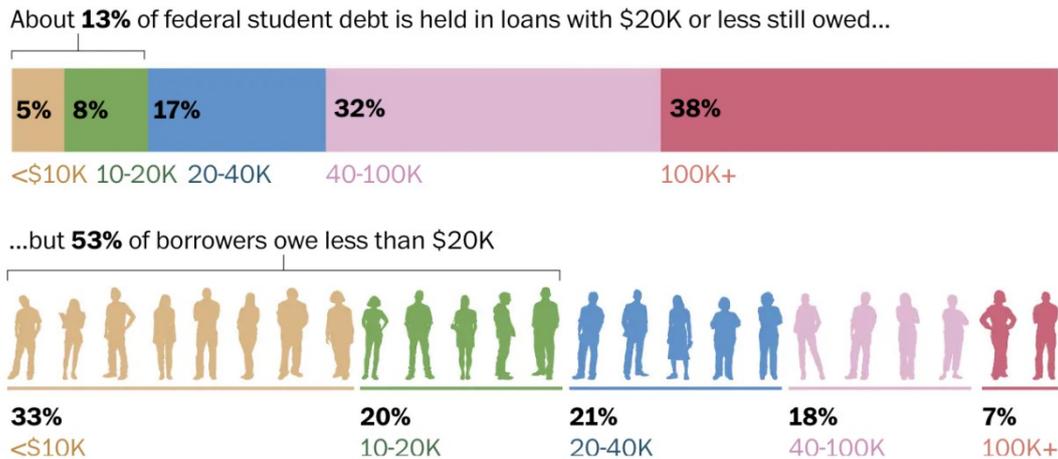


Figure 1: Alyssa Fowers&Danielle Douglas-Gabriel[6]

2.2. China educational system advantages and disadvantages

The most prominent feature of China's education system is its emphasis on foundational knowledge. In contrast to the U.S. approach, which relies on learning through practice, China tends to provide students with research results upfront, and then guides them to work backward. While U.S. students can study college-level subjects in high school, China's majority of educational style insists that a solid foundation at the high school level is essential before progressing to university-level courses. A lot of students who are talented in some subject will be trained to attend some contest such as mathematics Olympiad contestants. In China, the college entrance examination, known as "Gaokao," determines university admission. The Gaokao system has its advantages, particularly in that it offers a single, standardized method for entering higher education. In China, regardless of whether a student comes from a wealthy or poor family, the opportunity to attend university depends solely on Gaokao results.

However, the Gaokao system also leads to certain issues. As we know, China is a vast country, and educational resources in less developed or densely populated provinces differ significantly from those in major cities. For instance, Beijing has abundant educational resources, with most teachers in top schools being graduates from prestigious universities with advanced degrees. In contrast, rural areas in provinces like Yunnan have fewer teachers, and many schools have only a handful of teachers who rotate through various classes. Geographic location-linked disparities in educational resources lead to inequalities. Additionally, the Gaokao admission scores vary across provinces[7]. For example, students in Shandong Province, one of the most populous provinces, need to score at least 700 points to be eligible for top universities like Peking University or Tsinghua University (out of a total of 750), whereas students in Beijing may only need around 680 points. This discrepancy is largely due to the difference in population size: In 2024, there were nearly 1 million Gaokao candidates in Shandong, compared to just over 67,000 in Beijing[8]. As a result, students from more populous provinces must work much harder to enter the same universities, creating an unfavorable situation where many students suffer from mental health issues due to stress.

3. The comparison on the Influence of Chinese and American Education Systems on Regional Economy

In the U.S., to repay their loans, students often choose high-paying jobs that can cover their educational debts. However, these high-paying companies are usually located in large, modern cities, prompting many students to seek employment in such cities during graduation season each year. As

a result, companies in less prosperous areas struggle to attract human resources. Over time, this trend slows the economic growth of poorer cities[9]. This is evident in states like California, Texas, and New York, which consistently rank among the top states by GDP per capita. Silicon Valley, the hub of the tech industry, is located in California, while Wall Street, the financial center, is in New York. These areas are known for their high-wage job opportunities.

In China, students often prefer to work in cities like Beijing, Shanghai, and Shenzhen because these cities offer not only high-income job opportunities but also good living conditions and welfare benefits associated with developed urban areas. Regarding the university entrance system, Beijing's policies are more favorable for students than Shandong's policies[10]; By 2023, 46% of students in Beijing achieved first-grade scores, compared to 20.53% in Shandong. In terms of educational resources, Beijing has 39 higher education institutions (HEIs), while Shandong only has three. Consequently, in terms of both policy and educational resources, many young people are inclined to transfer their household registration (hukou) to developed cities to ensure a better living environment for their next generation. This movement results in a significant loss of technical talent in other cities, which slows down enterprise development. On the other hand, regional economic differentiation is also closely linked to educational resources. In some cities with slower development, there are fewer promotion opportunities and limited career growth, so teachers lack motivation, and high-quality teacher resources are gradually lost. Therefore, some underdeveloped areas have begun to adopt a group school model, which can integrate resources and improve the quality of education. However, it remains a question worth discussing whether such an educational model will lead to a loss of competitive pressure among schools and a slowdown in the overall educational level[11].

4. Strategic measures

To address the unequal education system causing regional economic disparities, this study proposes a series of strategic measures aimed at promoting balanced development of the education system. On one hand, the government can provide financial support to alleviate the pressure of tuition fees, directing school funds towards educational resources instead of infrastructure[12]. On the other hand, banks should reduce the interest rates on student loans so that graduates can freely choose their careers, instead of being forced to move to developed cities for high-paying jobs. It would be more effective to mobilize educational resources to remote areas rather than change the Gaokao scoring system. Teachers could be encouraged to move to remote areas, and the education level should be harmonized across regions. Once this is achieved, the criteria for school enrollment should be standardized[13]. These measures are expected to contribute to a more equitable education system, addressing issues related to regional economic disparities. The implementation of these measures will require significant coordination between the government, banks, and local companies[14].

5. Conclusion

This paper mainly compares the advantages and disadvantages of education in China and the U.S. and the impact of their respective drawbacks. The U.S. encourages students to pursue AP courses at an early age and engage in hobbies and sports activities. Although tuition fees at American universities are very expensive, due to the high quality of education, students often take out loans to attend college. As a result, graduates tend to work in more advanced cities where their salaries can cover their student loans. In China, schools place greater emphasis on basic education, and the university entrance system varies by geographical location. Provinces with smaller populations tend to have higher university admission rates, leading graduates to stay and work in them with favorable policies. However, both countries share a common consequence: their educational disparities exacerbate regional economic differentiation. Some policies have been introduced to provide

economic support to economically disadvantaged regions, but these measures do not address the root cause of the problem; they only alleviate surface-level issues. To further investigate this topic, the study aims to explore how to control regional economic differentiation stemming from educational shortcomings, viewed from an economic perspective in the future.

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