

A Comparative Study on the Inequity of Access to Higher Education in Beijing and Scotland: A Case Study of the University Entrance Examination System in Beijing and the Certificate Access System in Scotland

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Abstract: Taking Beijing's college entrance examination system and Scotland's certificate-based access system as examples, this paper focuses on the impact of social class on students' unequal access to higher education in the two regions. Through the collection and analysis of literature and secondary data, the paper studies what aspects Beijing and Scotland learn from each other's experience to promote the equality of starting point of higher education. This paper is divided into five chapters. Firstly, it analyzes the importance of fairness in entering higher education, why Beijing and Scotland are selected as examples and clarifies this paper's research purpose and research questions. Next, this paper adopts extended literature review and comparative study as research methods and collects literature and secondary data as evidence. Thirdly, this paper analyzes how class differentiation of full-time universities and class capital affects students' admission to full-time universities in the two regions and what policies are introduced in the two regions to reduce the unfairness of admission to full-time universities. Finally, this paper puts forward some suggestions for the development of Beijing and Scotland according to class differentiation and class capital.

1. Introduction

As early as 1998, United Nations Education Scientific and Cultural Organization (UNESCO) emphasized the future mission of higher education as the formation of new knowledge and the provision of services to society [1]. After entering the 20th century, higher education is unprecedented in academic knowledge and the global economy [2]. Ammar et al. believe that higher education is an engine for developing and growing a knowledge society because it helps promote research, knowledge, and technological innovation [3]. As a link in the process of human education, higher education can detect, identify and develop students' potential for future academic development [4].

To ensure that more and more diverse students have the opportunity to pursue and succeed in higher education, countries have established access systems. Beijing in China and Scotland in the UK are interesting examples. As the capital of China, Beijing's higher education access policies are primarily consistent with China's overall higher education access policies, and they often become the pilot city of college entrance examination reform [5]. University Entry Examination (UEE) system (taking Beijing for example) is offered only once a year. UEE scores are the sole determinant of university admission for most students, and students are only admitted to ranked schools based on their UEE scores [6]. However, as one of the four political entities of the United Kingdom, Scotland merged with England in the 18th century and fought a long battle between the two educational systems; it has its own set of independent access to the higher education system [7]. Scotland has a certificate-based university access system. Usually, students obtain certificates through subject examinations, and universities decide whether to approve their application for admission based on the grade and number of certificates [8]. It is worth noting that, whether in Beijing or Scotland, the

higher education that students receive through the college entrance examination or certificate access system is divided into full-time and part-time, and higher education institutions are also divided into universities and colleges. This paper focuses on the study group of full-time undergraduates, and higher education specifically refers to the education provided by full-time undergraduate universities.

Higher education in Both Beijing and Scotland has experienced enrollment expansion and completed the leap from elite stage to universal stage. Higher education in Beijing and Scotland witnessed enrollment expansion of higher education in 1999 and 1980s, respectively [9-10], with more and more people having access to higher education. In addition, the enrollment rate of full-time undergraduates under the age of 21 in Beijing and Scotland reached 50% in 2019 and 2000, respectively [11]. Higher education in both regions has achieved a leap from the elite stage to the mass stage and then to the universal stage. However, in the popularization of higher education, whether to allow every student to enter higher education institutions has become a common problem faced by Both Beijing and Scotland. Some studies have documented the existence of inequity in higher education in Beijing and Scotland [12-13]. They also examine the inequity of students from different social classes in the admission process to full-time universities [9]. Nevertheless, there is little research on the extent and trends of class-induced inequality in Beijing and Scotland.

Many researchers have given definitions of educational equity, and this paper adopts the starting point of equity proposed by Rawls [14]. Based on Rousseau and Kant's social contract theory, Rawls proposed three principles of equity aiming at educational equity and justice. Starting equity means that everyone has the right to receive an education [15]. Therefore, this paper aims to study how social class has become a factor causing the inequality of students entering higher education in Beijing and Scotland, and what aspects can the two regions learn from each other's experience to promote the equality of starting of higher education. In this paper, two questions will be addressed regarding the group data of applicants for full-time undergraduate higher education between 2000 and 2020: 1) How does social class contribute to the inequality of students' access to higher education in Beijing and Scotland? 2) How does the existing system solve the problem of unequal access to higher education (refers to the education provided by full-time undergraduate universities) in Beijing and Scotland caused by different social classes?

2. Methodology

Paradigm is a principle to observe or study phenomena, providing problem models and solutions for practitioners [16]. There are many paradigms for researchers to choose, such as positivism, interpretivism, constructivism, and criticism [16]. However, no single paradigm is significantly superior to another [17]. This paper will adopt the interpretive paradigm and argue that social experience and institutions influence people's views on reality and truth [18]. In other words, interpreters hold that truth and knowledge are subjective and that they are also formed based on people's experiences and their values and beliefs. Interpretivism makes more use of second-hand data than pragmatism. Cohen et al. believe that secondary materials have many advantages [16]. Firstly, the size, scope, and amount of secondary data are often much larger and more representative than data that a single researcher can collect. Secondly, secondary data is cheap and fast to access, saving time and money. Thirdly, secondary data already exist and have been ethically approved, so studies using the interpretivism paradigm can be done without formal ethical approval. Therefore, in terms of cost, data collection and ethical approval, this paper is more suitable for the interpretivist paradigm.

Interpretive researches also require the collection of textual or numerical data to support arguments. This paper will use qualitative research methods to provide corresponding evidence for the thesis by collecting, sorting, and analyzing previous literature as secondary data. In addition, this paper is an extended research review distinction. This paper will decide not to conduct initial data collection by selecting an extended research review. This is due to the new museum epidemic and time constraints, the author was unable to contact the organization and study participants, the

primary research is not feasible for this paper. Instead, this paper is a detailed and expanded review of the existing literature on the selected topic and critically analyzes and evaluates them to answer the research questions of this paper. Therefore, secondary sources are being used in this paper. The most commonly used literature retrieval tools are computers and electronic databases [19]. This paper conducts a literature search on qualitative research published in higher education disciplines mainly through computer search functions provided by the University of Glasgow Library database, Organisation for Economic Co-operation and Development website, and Google Academic website. The sample was limited to published, peer-reviewed journal articles and government documents as they achieved higher quality and academic standards [2]. When selecting articles, this paper limits the span to 2000-2020. However, articles published before 2000 that are highly relevant to this study were also considered.

In addition, this paper will adopt the research method of comparative education. Malechwanzi et al. believed that comparative education could analyze the education system and problems in the environment of two or more countries from social, political, economic, cultural, ideological, and other aspects [2]. The methodology of comparative education One of the most famous theoretical directions is critical theory. Supporters of this direction oppose the objectivity of value neutrality and think that research methods should be determined by research objectives [20]. Since comparative education has become a part of the social sciences, its data collection research strategy also corresponds to the traditional research strategy in the social sciences. This paper selects existing data search and comparative study as two data collection methods. Existing data searches rely on digital datasets from extensive national surveys, census data, and international agency surveys; Comparative studies involve educational issues and conditions in multiple countries or regions [20]. The data are mainly from the Scottish government website and the Chinese Ministry of Education website. This paper will examine the policy of access to higher education in Beijing and Scotland and then how social class creates inequities for students from both regions to enter full-time higher education institutions to make recommendations for future policy development. The comparison obtained in this study will not be used to judge which system is superior to which system but only to analyze and make suggestions based on the actual situation of the two countries.

3. Class differentiation in full-time universities and class capital to higher education in Beijing and Scotland

Firstly, the educational inequality caused by social class is directly related to the class differentiation of full-time universities. Scotland's higher education institutions are divided into four levels with class nature [9]. Scotland's ancient universities are part of the elite higher education system and mainly provide full-time undergraduate courses [21]. They tend to be more elite or middle-class applicants [22], while the working class is more likely to attend further education colleges [9]. Similarly, Beijing's higher education institutions are stratified by class. Elite universities such as Peking University and Tsinghua University, which mainly enroll full-time undergraduates, are given IFAP to recruit students independently. Students can be admitted or prioritize choosing majors after admission by including written tests and interviews [23]. Although such a policy can identify talents missed in UEE, students selected by IFAP are more likely to come from urban families with college-educated parents who graduated from essential high schools [23]. It can be seen that the full-time undergraduate higher education in Beijing and Scotland still has a preference for the elite and the middle class. People from different social classes apply for full-time undergraduate education simultaneously, and the elite or middle-class students are more likely to enter than the working-class children.

There may be various reasons why different classes of kids have different chances of getting into elite colleges [9, 24]. For students in Beijing, the inequality may have something to do with the nomination system for elite universities. Most universities qualified for independent enrollment require students to be nominated by provincial key high schools. This excludes children from poor areas because admission to key middle schools is related to their family background and household

registration [12]. For Scotland, however, some universities exclude the working-class in order to maintain their place among the international elite of research universities. For example, the four ancient universities in Scotland are seen as elite institutions, with high status and substantial research funding from the Scottish Grants Council, which are attractive to highly qualified and often socially more privileged applicants [21]. In order to preserve their academic standing and adequate research funding, ancient universities were more likely to attract elite or middle-class people, and providing more places for working-class children was unlikely to be a major priority for these institutions or those who worked in them.

Beijing has weakened the influence of independent enrollment in response to the unequal access to higher education caused by the class nature of full-time universities for children from different social classes. Wu found that among the 15 full-time universities in Beijing, 11.1% of the students participated in the independent enrollment plan [12]. In addition, the independent enrollment of candidates in the college entrance examination can enjoy a score reduction policy, generally can enjoy a reduction of 10 to dozens of points admission discount. Beijing has strictly controlled the number of students enrolled in independent enrollment programs in response to the call of the Ministry of Education to ensure fair opportunities and procedures for examination and enrollment. The Ministry of Education stresses that higher education institutions should appropriately reduce the number of students enrolled based on the number of students enrolled in the previous year and reasonably determine the number of students who participate in college examinations and are qualified for independent enrollment [25]. In the independent enrollment of 2019, 10 full-time universities in Beijing have seen a decrease in independent enrollment. For example, independent enrollment of University of Science and Technology Beijing in 2019 was 140, down 33 or 19% from the previous year. The Communication University of China has 103 independent enrollments, 37 fewer than last year, or 26.4% less [26]. Controlling the number of independent students means stricter screening standards, which can improve the quality of talent selection and screen out students who want to use independent enrollment as a shortcut to enter full-time universities. Therefore, independent enrollment attaches more importance to students' academic ability than before. No matter what class students come from, students with strong academic abilities will have the opportunity to participate in independent enrollment and enjoy the policy of preferential scores. However, other students can only gain admission to a full-time university through a unified examination. This reform preserves the autonomy of university enrollment and enables more students to face relatively equal opportunities for competition, and strengthens the equality of starting point for students of different classes to enter full-time universities.

Secondly, the capital difference of social classes also becomes an unfair factor for children from different social classes to enter higher education. Although most of the full-time institutions of higher education in Beijing take UEE score as the admission standard, more and more higher education institutions have begun to pay attention to students' comprehensive quality. As Wu said, the current UEE examines students' academic level and reflects their families' socioeconomic status [12]. Children from families with solid socioeconomic status have more economic, social, and cultural capital and have more opportunities to participate in activities related to all-around ability [23]. In comparison, the children of low-income families are more disadvantaged. Similarly, Scotland recognized earlier than Beijing the inequitable access to higher education caused by capital differences of social classes, and it monitored the participation in higher education within the region by demarcating regions. Scotland has a contextualized admissions policy for students in low-participation schools and communities, prioritizing the admission criteria or adjusting entry requirements for applicants from disadvantaged class groups [27]. However, since most disadvantaged families do not live in communities with low HE participation rates [28], affluent students from poor areas are given priority, while poor students from areas with high participation are subject to more significant restrictions on enrollment.

Scotland has introduced many policies to relieve the financial pressure on poor students [29-30]. To ensure that students from low-income families are not excluded or dissuaded from entering higher education because of the costs involved, the SNP government affirms that there is no need to

introduce any form of fees or graduate donations to fund higher education in Scotland [31]. This means that students in Scotland do not have to pay anything to attend full-time university, and the Scottish government supports their tuition fees. In contrast, Beijing cannot pay tuition fees for all students who enter full-time higher education institutions, but it can offer financial aid to students. Financial support includes national Bursary Schemes, merit-based scholarships, work-study programs, tuition waived, and student loans [2]. Students from low-income families can apply for financial subsidies from the government to share the cost of higher education.

4. The development Suggestions

Firstly, Scottish universities can control the number of students they recruit on a tiered basis. There are four types of higher education institutions in Scotland, and they are divided by class. Scotland can learn from the experience of Beijing's independent enrollment policy. All kinds of higher education institutions can recruit a certain number of high-quality talents every year; Other places at universities are open to all classes and are guaranteed to be relatively uniform. In this way, elite universities in Scotland can not only recruit high-quality talents, but also provide equal opportunities for disadvantaged students and excellent students to compete, and increase the opportunities for disadvantaged students to enter elite universities.

Although students in Both Beijing and Scotland can apply for financial aid for higher education, universities in Beijing have a single funding source for students. In Scotland, funding comes from the government and private enterprises [9], while students in Beijing can only get funding from the government and schools and apply for a limited number of places. Universities in Beijing can learn from the experience of Scotland to accept more channels of higher education funding, which is conducive to relieving the financial pressure of the government and schools and enabling more disadvantaged students to obtain financial aid.

5. Conclusion

Taking The University Entrance Examination system in Beijing and the Certificate access system in Scotland as examples, this paper focuses on the inequities of full-time university admission in the two regions. By collecting literature, this paper analyzes and compares the class nature of the full-time university and the restriction of social capital on the two regions. Finally, the paper suggests that Scotland can learn from the experience of Beijing to increase the proportion of certificate scores in full-time university admission. Moreover, Beijing can learn from Scotland to enrich its funding sources for higher education, even if its current system is imperfect.

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