

The Dilemma of Chinese Postgraduate Employment: First-Degree Discrimination

Jiahang Yang *

Business School, University of Nottingham Ningbo China, Ningbo, China

* Corresponding Author Email: biyjy22@nottingham.edu.cn

Abstract. In recent years, with the expansion of graduate enrollment and the increase in the number of graduate students, competition for employment among graduates has intensified. Consequently, a novel form of discrimination has emerged in the job market, significantly impinging on equal employment opportunities for undergraduate and graduate students alike. This article elucidates the emergence of this discrimination by employing a labor market discrimination model framework. Then the article introduces the prevailing methodologies for examining the existence and impact of discrimination in economics, makes comparisons of representative literature data to demonstrate its violation of the equal employment rights of postgraduate students from diverse undergraduate backgrounds, resulting in substantial disparities in their employment rates and starting salaries. Furthermore, this article proposes solutions from three perspectives: enhance legislative construction, establish more scientific recruitment criteria and government measures. However, further research is required to examine the specific impact of this discrimination due to limited data samples.

Keywords: First-degree discrimination; Labour market discrimination; Equal employment.

1. Introduction

1.1. Background

According to the Ministry of Education in China, the number of new college graduates is projected to surpass 10 million for the first time in 2022, while approximately 862,000 students are expected to graduate with a master's degree. However, due to limited opportunities within the domestic labor market, a significant portion of these college graduates face "unemployment upon graduation". Given the overwhelming number of applicants compared to available positions, many employers in China use employ criteria such as "211" or "985" status of their bachelor's degree when screening candidates, leading to what is commonly referred to as "First Degree Discrimination."

From a traditional economic perspective, education can enhance an individual's productivity, thereby increasing the market value of their labor [1]. The process of acquiring education is also considered as a means of socialization, enabling students with higher education to better integrate into society. The premise underlying the differentiation of workers based on their undergraduate degrees assumes that graduates from prestigious institutions receive superior quality education and possess greater capabilities. Some argue that getting into such institutions itself is a manifestation of ability. However, this assumption is one-sided: firstly, an individual's work capacity often encompasses multiple dimensions beyond their degree or alma mater; there are academically disadvantaged students in reputable schools and exceptional talents in less esteemed ones. Secondly, due to China's college entrance examination policy and regional disparities in educational resources, individuals do not have equal opportunities to attend the same university, it is arbitrary to solely reject an individual based on their first degree. This paper mainly aims to focus on the current situation and review the causes of first-degree discrimination, and how first-degree discrimination affects the employment and the initial salary of graduates in China.

2. Research problem and literature review

2.1. Raise of the problem

Since the introduction of the "211 Project Overall Construction Plan" in 1995 and the "Action Plan for Education Revitalization in the 21st Century" in 1998, China has formulated the concepts of "211 universities" and "985 universities". The government has augmented financial support and policy assistance to enhance talent cultivation and discipline construction in these higher education institutions, establishing an initial classification basis for Chinese universities. Consequently, this has fostered a hierarchical perception among Chinese individuals regarding disparities between domestic universities. Despite the Ministry of Education in China having abolished the official designations of "211" and "985" as early as 2016, the hierarchical perception among universities remains deeply ingrained in society. With the current surplus of Chinese college students, such prejudice based on institutional identity is more pronounced, as if only degrees from "211" and "985" are deemed valuable while degrees from other universities are considered valueless. Gradually in the Chinese labor market, there is a situation where job seekers are differentiated based on their first degree (i.e., undergraduate degree) even when they graduate from the same college or university, some state-owned companies explicitly state that they do not hire candidates who did not graduate from "985" or "211" universities. This has seriously affected the employment environment of job seekers from non-985 and 211 universities.

However, the Chinese government's objectives are opposite from this situation. As early as 2013, the Ministry of Education of China issued explicit documents prohibiting employers from selecting employees based on their undergraduate colleges and universities [2]. At the same time, these documents introduced the concept of discrimination against undergraduate institutions. Subsequently, in 2014, The General Office of the State Council addressed the persisting discrimination against undergraduate institutions in the job market by reiterating that "colleges and universities shall not be used as restrictive conditions" to promote employment fairness [3]. Until recently, there has still been a persistent focus on ensuring equitable employment opportunities for university graduates. Regrettably, despite governmental efforts to introduce relevant laws and policies, substantial resolution regarding discrimination based on undergraduate institutions remains elusive within China's labor market.

2.2. Review of research

In terms of employment discrimination, extensive research has been conducted in Western countries. However, the focus of their studies primarily revolves around racial, gender, and religious discrimination. Due to cultural disparities and varying social environments, instances of degree discrimination are less prevalent in foreign employment contexts [4]. Research specifically addressing first-degree education-related discrimination is even scarcer. While similar tiers exist at the university level abroad, they are often attributed to inherent characteristics or institutional development rather than direct government bias in policies [5]. Consequently, comparable studies tend to concentrate on the impact of laborers' income based on graduation school rankings rather than examining the influence of undergraduate institutions, for example, Long found that there is a positive correlation between the income of American workers and the quality (ranking) of their graduation school [6]. However, in China, this issue has been much more emphasized. In China's domestic labor market, although first-degree discrimination has gained attention only in recent years; nevertheless, it has been studied for over a decade and numerous investigations have been conducted. There is a clear definition of degree discrimination in China's domestic labor market, and its impact and reasons have been widely discussed. Zhan argues that the essence of first-degree discrimination lies in unjustly discriminating against individuals' origins by determining their current fate based on past performance—a clear unfairness. The main factors contributing to this phenomenon include an imbalanced supply and demand relationship within the job market, biases from employers during recruitment processes, and inadequate regulation due to incomplete laws and regulations governing

such practices [7]. Cheng and Li contend that this "supremacy of university status" stems from societal labeling phenomena along with tendencies towards oversimplification in management practices and excessive stratification within higher education institutions issues arising directly from undergraduate education [8]. Furthermore, the analysis conducted by Wu on the first degree and starting salary data of postgraduates from seven key universities in Wuhan revealed that, after controlling for other factors, there is a significant impact of differences in the first degree on starting salaries. Specifically, master's graduates from undergraduate 211 universities have significantly higher starting salaries compared to those from non-211 universities [9].

The following section will comprehensively review and analyze the existing research findings on first-degree discrimination at home and abroad, extensively examining literature sources such as books, academic journals, newspapers, and online resources, to accurately define first-degree discrimination and analyze its causes through the theory of discrimination. Additionally, it will incorporate relevant survey data to investigate its specific impact on employment opportunities for Chinese graduates.

3. Theoretical framework and empirical analysis

3.1. Discrimination and first-degree discrimination

Since Becker introduced the concept of discrimination into the economic domain, two predominant theories have emerged to explain disparities in labor market outcomes among demographic groups: the taste-based model and the information-based model, also known as the statistical discrimination model [10], and the combination of these two theories is commonly referred to as the theory of labor market discrimination [11]. The taste-based model, exemplified by Becker's perspective, posits that discrimination entails a preference among economic actors to avoid interactions with specific social groups and they are willing to incur an economic cost for such avoidance. It is characterized by a form of hostility or animosity towards certain groups [12]. Conversely, Arrow and Phelps criticized this theory. They are skeptical of the taste-based model that explains discriminatory behavior based on preference features and proposed the statistical discrimination model [13]. According to the statistical discrimination model, individuals (typically employers) discriminate against particular groups due to limited information availability. Economic actors attempt to assess individual characteristics based on restricted data; however, due to less informative ability signals within a group or negative perceptions about specific group members in the human capital market, employers ultimately engage in discriminatory practices or exhibit biases against these groups. Although not driven by animus per se, this type of discrimination is a stereotype based on group members caused by incomplete information [14].

According to the definition, first-degree discrimination refers to the behavior of employers who not only examine the academic qualifications of graduate job seekers but also differentiate between candidates based on their undergraduate education from different universities and majors. For example, the requirement states that the first degree must be obtained from a prestigious university listed in the 985 or 211 project, while ordinary undergraduate and vocational schools are not eligible for admission [7]. Drawing on the theoretical framework of discrimination, first-degree discrimination is commonly explained by the theory of statistical discrimination, which posits that graduates from selective colleges generally exhibit higher levels of personal ability and productivity compared to their counterparts from non-selective colleges on a statistical average. To optimize efficiency, enterprises often impose restrictions on graduate school qualifications during recruitment processes to identify candidates with superior abilities. However, this practice unjustly disadvantages numerous competent applicants from non-elite institutions. The correlation between college reputation and graduates' productivity and personal aptitude is not absolute. The purported superiority of graduates from prestigious colleges over those from ordinary ones is mostly a statistical significance [9]. When facing individuals, companies should consider job applicants' overall qualifications more comprehensively.

3.2. Research Method

The theory of discrimination has been extensively studied by the academic community, however, measuring the presence of labor market discrimination and its consequential impact remains a challenging task. Numerous previous studies have empirically examined disparities in economic outcomes between different groups while assessing the factors responsible for these variations. They used regression analysis to investigate whether supply-side or demand-side factors account for the differences in variance while controlling for other observable variables [15]. A few classic examples include examining wage disparities between blacks and whites or labor income differences between women and men. Researchers attempt to explain these wage gaps by decomposing them into various components such as education and age differences through regression equations, attributing any unexplained portion to discrimination, for example, the most commonly utilized method is the Blinder–Oaxaca decomposition procedure [16, 17]. Nevertheless, drawing conclusions based on this approach remains some parts not fully explained due to the presence of numerous unobservable factors that may render some observable variables insignificant. Controlling for too few or too many variables can lead to erroneous inferences about discrimination. Additionally, researchers must consider that controlling for certain variables may themselves influence discriminatory practices. The complexity of individual labor market characteristics cannot be fully explained or quantified solely through regression analysis; hence an important methodological advancement lies in conducting audit and correspondence studies where individuals from different racial backgrounds pose as consumers or job seekers. For instance, Ian Ayres and Peter Siegelman employed this approach to discover that car dealers tend to charge higher prices to blacks and women [18]; Austin found that minorities were less likely than whites to obtain mortgages [19]. Audit research offers a way to control for the characteristics associated with non-discriminatory economic agents involved in a market transaction, without resorting to random assignment based on race or gender [15]. In the coming section of this paper, an analysis will be conducted on the literature data obtained through the aforementioned two methodologies and the disparities will be compared.

3.3. Literature data

Given most of the studies on the first degree are theoretical and relatively limited empirical research on first-degree discrimination, this paper exclusively focuses on selecting the most representative example of each of these two empirical research methods. Specifically, Wu's literature on regression analysis of first-degree discrimination is chosen for examination. By meticulously controlling for various factors, Wu conducted a sample survey encompassing seven prominent universities in Wuhan, establishing a regression analysis model and applying the Blinder-Oaxaca decomposition method. The sample size consisted of approximately 500 individuals. Through an analysis of data about employment rates and starting salaries among sampled postgraduate students with undergraduate degrees, the findings indicate that disparities in educational backgrounds significantly influence employment outcomes. Notably, master's students from 211 universities not only exhibit a higher probability of being employed but also command substantially higher starting salaries compared to their counterparts from non-211 institutions, with a 49.1% higher employment rate and an average of 11.8% higher starting salary [9]. However, it should be pointed out that despite efforts made to control for other influencing factors, the issues of endogeneity remain unresolved within the context of this regression analysis, for example, the variations in individual abilities among graduates with different undergraduate degrees have yet to be fully accounted for, graduates from 211 universities may possess better work abilities, thereby conferring them a competitive edge in the employment market.

In terms of audit and correspondence research, the empirical study conducted by Li and Bai is highly representative. This literature compares the employment prospects for graduate students with 211 and non-211 undergraduate degrees by controlling variables and designing diverse resumes to be submitted to selected companies. The study distributed 2,776 standardized resumes to 694 companies through public job advertisements, with each recruiting unit receiving four resumes: one from a high-

quality 211 undergraduate program, one from a low-quality 211 undergraduate program, one from a high-quality non-211 undergraduate program, and one from a low-quality non-211 undergraduate program. The quality of the resumes was differentiated based on factors such as quantity of internship experience, work experience, and honors while minimizing other influencing factors as much as possible. The finding shows that overall job applicants from 211 universities had a response rate that was 1.41 times higher than those from non-211 universities; this finding aligns closely with Wu's research findings [5]. Furthermore, the article found that after comparing the response rates of high-quality and low-quality resumes, the impact of first-degree discrimination diminished when more productivity information about job seekers was provided in their resumes. This partially illustrates statistical discrimination as an underlying cause of first-degree discrimination.

Examining the research on the first-degree discrimination against postgraduates with different undergraduate degrees in the aforementioned examples, despite variations in methodologies, locations, and study populations, comparable findings were obtained. There are similarities in the research data and both studies revealed that discrimination against those with undergraduate degrees resulted in significant disparities in employment opportunities for graduate students from 211 and non-211 universities, thereby infringing upon their legitimate right to equal employment.

4. Solution and prospects

In the preceding chapters, the formation and impact of first-degree discrimination have been discussed. Currently, first-degree discrimination in China's labor market has a detrimental effect on a significant number of highly educated individuals, undermining their equal employment rights based on different academic qualifications. This section will explore effective strategies to mitigate the consequences arising from first-degree discrimination from three distinct perspectives.

Firstly, it is imperative to enhance legislative construction and expedite the promulgation of employment laws that combat discrimination. Simultaneously, it is crucial to establish relevant institutions aimed at bolstering regulatory efforts and improving punitive mechanisms. In a global context, the United States has enacted legislation to combat labor market discrimination, including the *Age Discrimination in Employment Act*, the *Equal Employment Opportunity Act*, and the *Pregnancy Discrimination Act*. Similarly, Japan has implemented the *Equal Employment Opportunity Law*, while Ireland has established the *Employment Equality Act*. Notably, certain countries have even established dedicated institutions such as the U.S. Equal Employment Opportunity Commission (EEOC) to actively promote employment equality. In contrast, China currently lacks specific legislation aimed at eliminating labor market discrimination. Although concepts of anti-employment discrimination are mentioned in laws such as the *Constitution* and the *Promotion of Employment Law* in China, there is a lack of clear standards for assessing employment discrimination cases and vague definitions regarding punitive measures with minimal enforcement actions taken; most provisions merely serve as declarative prohibitions against employment discrimination [20]. Therefore, it is imperative to draw insights from the labor market governance measures implemented by other nations. This necessitates enhancing relevant legislation and regulations about employment discrimination, elucidating the definition of discriminatory behavior and punishment mechanisms, establishing dedicated regulatory bodies, and bolstering law enforcement endeavors to ensure equitable employment rights for postgraduates with diverse undergraduate degrees.

Furthermore, it is imperative to implement a more scientific talent assessment mechanism and establish more rational recruitment criteria. Companies should enhance their talent acquisition system by adopting a more lenient approach toward degree screening and incorporating comprehensive job skills testing. As previously mentioned in this article, the emergence of educational background-based discrimination can be largely attributed to incomplete information. A scientifically robust and all-encompassing talent evaluation mechanism has the potential to provide a more accurate reflection of an applicant's productivity, thereby mitigating the impact of statistical discrimination.

Thirdly, the government should continue to dilute the hierarchical division in schools. Despite China's early abolition of school divisions of "211" and "985" in 2016, this concept has already become deeply ingrained in people's minds. Currently, domestic media and the public still perceive "985" and "211" as synonymous with prestigious universities. Instead of simply using "985" and "211" for hierarchical classification, universities can be categorized based on their positioning or disciplinary coverage, such as research-oriented universities, teaching-research-oriented universities, teaching-oriented universities, etc. [8]. Hierarchical form of stratification not only stigmatizes universities as superior or inferior but also reflects on university students, discrimination based on educational background is a manifestation of this hierarchical behavior. As products of policies, the government should downplay and eventually cease assigning administrative levels to schools, especially higher education institutions. As a result of policy implementation, the government should downplay and eventually cease assigning administrative levels to higher education institutions.

5. Conclusion

This paper systematically investigates the issue of discrimination about individuals' first academic degrees in China's labor market. Drawing upon the labor market discrimination theory as the theoretical framework, this paper integrates a comprehensive literature review with a detailed case analysis to examine the existence and impact of such discriminatory practices. The findings from both researches show a significant impact of undergraduate universities on the employment rate and initial salary among postgraduate students with different first academic degrees. It demonstrates that discriminating against individuals based on their first academic degree significantly undermines the equal employment rights of undergraduate graduates who pursue further education at the postgraduate level. Consequently, the article presents three suggestions for mitigating the adverse effects of discrimination against individuals holding only a bachelor's degree: enhancing legislative frameworks and establishing relevant institutions, implementing a more scientifically rigorous talent assessment mechanism, and gradually eradicating the hierarchical concept prevalent in higher education institutions. However, due to the limited availability of case data and outdated time intervals, further research is warranted to explore the deep impact of first-degree discrimination.

Reference

- [1] TEICHLER U. Education and Employment [M]/WRIGHT J D. International Encyclopedia of the Social & Behavioral Sciences (Second Edition). Oxford; Elsevier. 2015: 127-31.
- [2] Notice on Strengthening Employment Information Services for Graduates from Higher Education Institutions [Z]/Ministry of Education two thousand and thirteen
- [3] Notice of the General Office of the State Council on Doing a Good Job in the Employment and Entrepreneurship Work of Graduates from Ordinary Higher Education Institutions nationwide in 2014 [Z]/Ministry of Education two thousand and fourteen
- [4] Huang Shitong Research on Education Discrimination in the Recruitment of Civil Servants [D]; Southwest University of Political Science and Law, 2009
- [5] Li Bin, Bai Yan the signaling mechanism of education: Evidence from resume submission experiments [J] Economic Research, 2020, 55 (10): 176-92
- [6] LONG M C. College quality and early adult outcomes [J] Economics of Education Review, 2008, 27 (5): 588-602
- [7] Zhan Guowen Legal Reflection on Discrimination Against First Education Qualifications [J] Education and Career, 2008, (02): 170-1
- [8] Cheng Sihui, Li Zhongwei Criticism of "school calendar doctrine" [J] Higher Education Research, 2013, 34 (03): 28-33
- [9] Wu Wei An empirical study on the issue of educational discrimination in graduate employment [D]; Central China Normal University, 2018

- [10] LEVITT S D. Testing topics of discrimination: Evidence from weakest link [J] *The Journal of Law&Economics*, 2004, 47 (2): 431-52
- [11] DEX S. Economists' theories of the economics of discrimination [J] *Ethnic and Social Studies*, 1979, 2 (1): 90-108
- [12] BECKER G S. *The economics of discrimination* [M] [Chicago]: University of Chicago Press [Chicago], 1957
- [13] FANG H, MORO A. Chapter 5- Topics of Statistical Discrimination and Affirmative Action: A Survey *
* We thank Alberto Bisin, Jan Eeckout, Yariv Fadlon, and Kevin Lang for advancing comments on an initial draft of this chapter We also thank our coauthors Glenn Loury and Peter Norman for advancing many insights on statistical discrimination and affirmative action [M]//BENHABIB J, BISIN A, JACKSON M O. *Handbook of Social Economics* North Holland 2011: 133-200
- [14] MORO A. *Statistical Discrimination* [M] *The New Palgrave Dictionary of Economics* London; Palgrave Macmillan UK. 2016: 1-5
- [15] GURYAN J, CHARLES K K. Taste based or Statistical Discrimination: The Economics of Discrimination Returns to its Roots [J] *The Economic Journal (London)*, 2013, 123 (572): F417-F32
- [16] BLINDER A. Wave Discrimination: Reduced Form and Structural Estimates [J] *Journal of Human Resources*, 1973, 8 (4): 436-55
- [17] OAXACA R. Male Fee Wage Differentials in Urban Labor Markets [J] *International Economic Review*, 1973, 14 (3): 693-709
- [18] AYRES I, SIEGELMAN P. Race and Gender Discrimination in Bargaining for a New Car [J] *The American economic review*, 1995, 85 (3): 304-21
- [19] TURNER M A. *Mortgage Lending Discrimination: A Review of Existing Evidence*, F, 1999 [C]
- [20] He Chunsun the Practice and Enlightenment of the US Anti Employment Discrimination Law in the Fair Employment Opportunity Commission [J] *Modern Commerce and Industry*, 2022, 43 (18): 38-9.