

Research on Recruitment Methods for Doctoral Students in American Colleges and Universities

Lijiang Yu*

Graduate School, China University of Geosciences Beijing, Beijing 100083, China

*Corresponding author: Lijiang Yu, yulj@cugb.edu.cn

Copyright: © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Reform of the entrance examination mode of doctoral students is an important topic in postgraduate education. This paper studies the successful experience of American colleges and universities in the doctoral entrance examination and summarizes the doctoral enrollment methods of Chinese colleges and universities. Finally, this article analyzes the methods of recruiting doctoral students from American universities to Chinese universities, which provides an important reference for improving the enrollment quality of doctoral students in China.

Keywords: American colleges and universities; PhD candidate; Enrollment reform

Online publication: November 13, 2024

1. Introduction

As the highest level of academic education, doctoral education represents the highest achievement of a country in terms of talent cultivation^[1]. It is not only the cradle of high-level innovative talent but also plays a vital role in the construction of a national innovation system and the realization of innovative national strategic goals. In October 2024, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the “Opinions on Accelerating the High-Quality Development of Doctoral Education,” making systematic arrangements for continuously deepening the comprehensive reform of doctoral education and providing clear guidance for the future development of doctoral education, direction and specific policy guidance^[2]. To promote the comprehensive reform of doctoral education, we must learn from the experience of internationally renowned universities in doctoral enrollment and closely focus on the core goal of improving the quality of doctoral training and meeting the needs of the state and society. With the rapid development of globalization and the knowledge economy, the higher education systems of all countries in the world are facing drastic changes, which not only involve improvements in education quality but also include educational models, training methods, and evaluation standards. Given this background, as an important part of higher education, the entrance examination method

of doctoral students has naturally become one of the focuses of reform.

The enrollment process of doctoral students is the initial link of training, and its quality is directly related to the effectiveness of the entire training process. Therefore, ensuring the quality of enrollment is the basis for the success of doctoral education. Countries worldwide have taken different paths in the development of doctoral education, which reflects the uniqueness of educational development in various countries. Taking the United States (U.S.) as an example, its doctoral training is large in scale and high in quality, and it has gradually become a model of global doctoral training and is known as the “gold standard of international academic circles.” Doctoral education in the United States rose in the middle of the 19th century, more than a hundred years ago. Over the past century, with the evolution of society, the economy, science and technology, culture, and higher education itself, doctoral education in the United States has been continuously optimized and upgraded, resulting in distinctive characteristics. The United States has a long history of development in the enrollment of doctoral students, has established a mature, stable, and perfect enrollment system, and its experience has been widely used for reference by countries worldwide.

2. Characteristics of the methods used to recruit doctoral students from American universities

From the development of doctoral recruitment methods in the U.S., it can be concluded that the U.S. has always implemented a single-track system, that is, an application examination and admission system. The single-track method used to recruit doctoral students has common characteristics in terms of governance structure, enrollment autonomy, entrance tests, admission standards, and measurement technology.

2.1. Autonomous governance mechanism of colleges and universities

American colleges and universities have a high degree of autonomy in enrolling doctoral students. Colleges and universities are responsible for enrollment plans, and the government and graduate schools indirectly influence them through financial allocations. The federal and state governments do not directly participate in the enrollment plan but rather guide the enrollment quota by increasing scientific research projects and funding. When the enrollment scale is allocated, the college considers factors such as teachers, funds, equipment, and market demand and flexibly adjusts the quota according to the quality of the applicants' and teachers' recommendations. Simultaneously, the college will consider educational costs, such as laboratory capacity, interaction time between teachers and students, and the ratio of scholarships and grants, and weigh the costs and benefits. The graduate school is responsible for controlling the overall enrollment plan, determining the quota according to the overall situation of the school and the degree of professional attention, and coordinating the enrollment plan among various disciplines. Funding is the key to whether tutors can enroll students. A lack of funding may lead to the suspension of enrollment plans, while sufficiently funded teachers are eligible to enroll students. The enrollment plan will be adjusted according to the amount of funds. If the funds are limited, the number of enrollments will be limited.

2.2. Tutor-led collective responsibility system

In the United States, colleges and universities enjoy the right to recruit doctoral students independently, and teachers play a key role in the admissions committee. Although graduate schools have set basic requirements for admission, these requirements are flexible and can be adjusted through negotiation.

The admissions committee is usually composed of faculty, sometimes administrative staff, and doctoral volunteers, who are responsible for reviewing application materials and making admission decisions ^[3]. Take the Admissions Committee of Harvard Graduate School of Education as an example. It is composed of teachers, administrators, and doctoral students from different departments and implements a collective decision-making system. Additionally, there is a “single responsibility system,” that is, teachers choose doctoral students according to their judgment. Teachers can also take the initiative to recommend students. If the reasons for the recommendation are sufficient, students may be admitted exceptionally. The enrollment system of American colleges and universities is restricted by collective decision-making, market mechanisms, and punishment mechanisms to ensure the fairness of the enrollment process. Teachers will consider project funding and research results in the enrollment process, so they will strictly screen students with research potential. If teachers violate relevant regulations, they may suffer serious academic and legal consequences. Therefore, teacher recommendations and exceptional admissions are based on a fair evaluation of the applicant’s ability.

2.3. Standardized entrance test system

American college enrollment relies mainly on national unified standardized tests, especially the Graduate Record Examination (GRE). In the early days, American colleges and universities selected students through interviews, but with the increasing demand for educational equity, standardized tests came into being to reduce subjectivity and provide objective evaluation. Standardized tests provide unified evaluation standards for students from different backgrounds and help recruiters select graduate students from many applicants. GRE is the main examination for graduate admission in the United States, especially for doctoral students. The high reliability and validity of the GRE make it an effective tool for predicting graduate school performance. The GRE includes an academic ability test, which tests basic academic ability, and a professional test, which is aimed at specific subjects. The GRE is organized by a team of professionals, including the Board of Directors, which sets the policy, and the Educational Testing Service (ETS), which executes the quiz, to ensure the scientific nature and impartiality of the quiz.

2.4. All-round inspection mechanism

The enrollment of doctoral students in the United States is a comprehensive evaluation process that focuses on the creativity, knowledge base, research ability, research interests, personal qualities, and experiences of applicants. Creativity is the core, but it is difficult to quantify. The knowledge base includes knowledge in general and specialized areas. Research competence is divided into general and professional skills, and research interest and motivation are also crucial because they can affect the quality of academic completion. Personal qualities such as interpersonal interaction, perseverance, personal experience, learning, and work background are all part of the assessment. Different majors attach different importance to these factors, but the comprehensive consideration of cognitive and noncognitive variables helps improve the quality of enrollment.

2.5. Refined measurement mechanism

In the U.S., multiple methods are used to evaluate applicants’ overall qualifications. Creative assessment includes letters of recommendation, research results, communication skills, and GRE analytical writing.

A resume's diversity of professional experiences also aids in evaluating creativity. Research competence is gauged by academic outcomes, standardized test scores, and specific professional submissions. Knowledge is assessed through course grades, the quality of the undergraduate institution, GRE scores, and recommendations. Research interests are discerned from personal statements, recommendations, and sometimes phone interviews. Personal qualities are reviewed through references, interviews, and communications, while personal experiences are highlighted in resumes. To enhance prediction accuracy, universities set detailed requirements for application materials, such as recommendation letter contents, and may use interviews and phone calls to validate information and understand candidates further.

3. Recruitment methods for doctoral students in Chinese universities

Chinese universities have shown a diversified selection mechanism in doctoral enrollment, aiming at meeting candidates with different backgrounds and needs.

Firstly, for students with outstanding undergraduate performance, pursuing a Doctor of Philosophy (PhD) directly can be beneficial. Typically, by the end of their junior year, students who qualify for postgraduate exemptions may apply for a direct-entry doctoral program. In this pathway, applicants bypass the master's stage, enrolling directly as doctoral students for continuous study and research. This approach shortens the overall academic timeline and accelerates the path to obtaining a doctoral degree. For example, leading programs at top universities may select undergraduates with a strong mathematical foundation and notable research potential to enter PhD studies directly.

Secondly, there is a system for continuous progression from master's to doctoral degrees. This pathway is primarily designed for current master's students, targeting those in their first or second year, though some universities also consider third-year students. After reaching a specified stage in their studies and passing relevant examinations, these students may transition directly into the doctoral phase. This continuous study system enables students to engage deeply in scientific research, fostering continuity and advancing in-depth academic development.

Thirdly, the application-assessment system. Candidates are required to submit various application materials to the graduate school, including academic degree certificates, transcripts from postgraduate studies, master's theses (or a proposal report for recent graduates), foreign language proficiency certificates (such as the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), College English Test (CET-4 and CET-6), etc.), two letters of recommendation from full professors, academic achievements (e.g., papers, research topics), and a research plan for their doctoral studies. Graduate schools and colleges then review these materials and organize a re-examination, which typically includes written exams and interviews. The final admission list is determined based on both the scoring of application materials and re-examination performance. Currently, over 90% of colleges and universities in China have adopted this application-assessment system.

Finally, a unified examination is conducted. The unified entrance examination for doctoral students typically includes one foreign language test and two professional courses, which assess basic professional knowledge and specific research field knowledge. Candidates must complete the registration within the specified time frame and submit the required materials as necessary. After passing the qualification examination, candidates are required to take an exam organized by colleges and universities, which consists

of two stages: the preliminary examination and the re-examination. The preliminary examination aims to assess the basic knowledge and professional skills of candidates, while the re-examination focuses on evaluating their comprehensive quality, scientific research potential, and foreign language proficiency.

4. Enlightenment of methods for recruiting doctoral students: comparing American and Chinese universities

Firstly, American universities emphasize a balance of flexibility and reliability in their doctoral enrollment processes. The diversity in the content and format of the doctoral entrance examination offers valuable insights for Chinese universities. For example, when American universities evaluate application materials, they consider not only standardized test scores but also other aspects such as letters of recommendation, personal statements, and academic performance. Additionally, through interviews and case analysis, the comprehensive quality and research potential of applicants can be evaluated more holistically.

Secondly, the feedback and adjustment mechanism used by American universities in the enrollment process is also worth learning from. The Graduate Admissions Office conducts a detailed analysis of the annual graduate enrollment results and, based on the findings, adjusts and optimizes the enrollment strategy for the following year. This feedback mechanism ensures the continuity and effectiveness of the enrollment policy while also identifying any issues in the process.

Finally, the international enrollment strategy of American colleges and universities is also worth learning. The process of recruiting graduate students is not only open to domestic applicants but also to outstanding scholars and researchers worldwide. This open enrollment policy has brought them an international vision and diversified academic resources.

5. Conclusion

Through research on the recruiting methods of doctoral students in American colleges and universities, this paper provides valuable opinions for the reform and practice of the doctoral students' enrollment system in Chinese colleges and universities. Colleges and universities need to deepen the comprehensive reform of postgraduate education, improve the selection mechanism of top-notch innovative talent, create an institutional environment conducive to the standing out of innovative talent, and provide strong talent support for the national innovation-driven development strategy.

Funding

This work was supported by the Foundation for Development Research of Disciplines of China University of Geosciences (Beijing) (Project No. 2022XK218 and 2023XK110).

Disclosure statement

The author declares no conflict of interest.

References

- [1] Zheng Q, 2019, The Conceptual Framework of Academic Research Guidance “Successful Academic Research Guidance—Instructs Students to do Research” Review. *Education Modernization*, 6(46): 82–84. <https://doi.org/10.16541/j.cnki.2095-8420.2019.46.029>
- [2] The General Office of the State Council and The General Office of the CPC Central Committee, 2024, Opinions on Accelerating the High-Quality Development of Doctoral Graduate Education. Published October 20, 2024. https://www.gov.cn/zhengce/202410/content_6981723.htm
- [3] Wan Y, 2014, Characteristics and Inspirations of the System of Admission to Doctoral Programs in the U.S. *Journal of Graduate Education*, 2014(04): 90–95.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.