

On Improving the Internationalization Level of Postdoctors in China

Dan Mou

Office of International Affairs, Southwest Petroleum University, Chengdu, Sichuan, China

Abstract

The internationalization level of postdoctors is closely related to the construction of world-class universities in China. At present, there are some problems in the development of China's post-doctoral system, such as the low proportion of foreign and overseas doctoral students in the total number of post-doctoral students, the few opportunities for local post-doctoral students to go abroad, and the insufficient degree of internationalization of research results. The reasons for the problems are the strategic defects in the policy formulation of post-doctoral internationalization, the lack of attractive funding and the insufficient publicity of post-doctoral internationalization. To improve the internationalization level of Chinese postdoctoral, we need to increase the dispatch of domestic postdoctors, implement the policy of differential funding for foreign postdoctoral and strengthen the international exchange of postdoctoral system.

Keywords

Postdoctoral System; Level of Internationalization; Foreign Postdoctoral Students.

1. Introduction

Postdoctoral research has changed the faculty structure of research universities and provided a foundation for attracting international talents and maintaining the international competitiveness of American universities [1]. Nearly 80% of teachers in American research universities need postdoctoral experience [2]. China's postdoctoral system was established in 1985. By the end of 2020, the number of post-doctoral students had reached 210,000, making China the second largest post-doctoral institution after the United States. Postdoctors have gradually become one of the main sources of teachers in China's research universities.

The quality of teaching staff often determines the level of running a university. In the process of building a world-class university, China must attach great importance to the structure of teaching staff. The internationalization of faculty sources has been proved to be an important indicator for the establishment of world-class universities. As a large number of post-doctoral students teach and engage in scientific research in universities, the internationalization of China's post-doctoral system will affect the process and quality of China's construction of world-class universities to a certain extent.

2. The Status Quo of the Internationalization Level of Postdoctoral Students in China

To judge the internationalization level of the postdoctoral system, there are four common indicators: the proportion of the number of foreign postdoctoral students in the total number of postdoctoral students enrolled, the proportion of overseas postdoctoral students in the total number of postdoctoral students enrolled, the proportion of domestic postdoctoral students in overseas cooperative research, and the degree of internationalization of postdoctoral papers published. At present, the low level of internationalization of Postdoctoral students in China is shown as follows:

2.1. The Proportion of Foreign Postdoctoral Students is Low

The first recruitment of foreign postdoctoral students in China began in 1988. In that year, the National Postdoctoral Management Committee "Notice on Some Issues concerning the Current Postdoctoral Work" stipulated, "In order to promote international academic exchanges, improve the status of China's postdoctoral research system, and expand its influence, "[3] Compared with China's postdoctoral recruitment, the proportion of foreign postdoctoral students is less than 2%, and the degree of internationalization is seriously insufficient.

2.2. The Proportion of Overseas Doctors Returning to China to Work as Postdoctors is Low

The postdoctoral system was originally created to attract overseas PhD students to return home. In the first few years after the establishment of the postdoctoral system, the postdoctoral system indeed attracted a number of overseas doctoral students. From 1985 to 1987, the number of overseas doctoral students returning to China as postdoctoral students accounted for more than 50% of the total number of postdoctoral students recruited that year. However, with the gradual deepening of China's market economic reform, the reform of post-doctoral system has failed to keep pace with The Times, and its attraction to overseas doctors has gradually weakened.

2.3. Few Opportunities for Post-doctoral Training Abroad

In the year of the establishment of the postdoctoral system, almost all the postdoctors recruited had international background of studying abroad. To this end, policies were introduced to encourage postdoctors to stay abroad during their postdoctoral years to produce early results. Postdoctors are not allowed to apply for postdoctors or further study abroad during their stay. However, if necessary, the establishment unit can arrange them to go abroad to participate in international academic conferences or exchange activities, or go abroad for short-term cooperative research or experimental work directly related to the postdoctoral research topic, generally the period is not more than three months "[4]. This rule until now, and not according to our country to recruit postdoctoral international background change and change, continue to rule "postdoctoral researchers during station, according to the requirements of the research project, approved by the station unit, can cooperation study abroad, attend international academic conferences or short-term academic exchanges, time is generally not more than three months. [5] The above policies do have a great negative impact on the internationalization level of postdoctoral students. At present, the government has increased the intensity of sending undergraduates, master's students and doctoral students, but restricted post-doctoral students to go abroad. As a matter of fact, the overseas study and research of postdoctors are more important and urgent than those of undergraduates and postgraduates, and they should be provided with opportunities to contact world-class scientific research conditions and research teams as early as possible.

2.4. The Degree of Internationalization of Research Results is Not Enough

The United States and China are the world's largest and second largest post-doctoral countries respectively. At present, there are about 90,000 postdoctoral students in the United States and more than 20,000 in China. Although there is no uniform requirement for post-doctoral evaluation in American universities, the scientific research achievements of post-doctoral in The United States are highly internationalized. Take Science, an international comprehensive journal of Science, as an example. "According to statistics of Science journal in 2008, 43% of the first authors of published papers are post-docs "[6]. Post-docs have become the most dynamic and creative team in American scientific research.

3. The Reasons for the Low Level of Internationalization of Chinese Postdoctoral

To analyze the reasons for the low degree of internationalization of China's post-doctoral system is to find out the problems and provide appropriate prescriptions for the right medicine.

3.1. Strategic Deficiencies in Policy Formulation

In 1988, when China started to recruit foreign postdoctoral students, and the National Committee of Exhibition management required that "the number of postdoctoral students recruited from foreign countries should be controlled within 5% of the total number of postdoctoral students" [2]. The result of the implementation of this requirement is to limit the recruitment of foreign doctors as postdoctoral students in China. If the awareness of reform and opening up was not enough at that time, and the internationalization of postdoctoral students was not a problem, the post-doctoral career development plan issued later did not attract enough attention. Since the ninth five-year plan, China has made a special plan for the development of post-doctoral system at the national level. But from the "ninth five-year""twelfth five-year" postdoctoral career planning content, although mostly mentioned in line with international standards progressively postdoctoral system, the matter in a postdoctoral fellow at the international communication, but on how to expand China's post-doctoral international activity space, Dr Attract foreign and study for post-doctoral, etc., but I did not like other project to give the specific measures in planning, The flaws in policymaking are obvious.

3.2. Insufficient International Publicity

China's postdoctoral system with the "government-led" and "unified planning, guidance and management of government" two important characteristics, reflects the difference between it and western postdoctoral system management, our country need to use its characteristic strengthen publicity around the world, make full use of official propaganda channels of authority and credibility to expand the internationalization of China's postdoctoral system influence.

However, the international publicity of postdoctors in China is far from enough. For example, the capacity of the English page of the official website of China Postdoctoral is much less than that of the Chinese page, and there is even no English page in many cases. As the most powerful language in the world, English is spoken in the largest number of countries. In order for China's postdoctoral system to go international, more countries and individuals need to know about China's postdoctoral policy, and at least there should be an English page to comprehensively and timely publicize China's postdoctoral development and the latest policies. Therefore, it is imperative to strengthen the publicity of post-doctoral internationalization.

4. Measures to Improve the Internationalization of Chinese Postdoctoral System

The reform of the internationalization of postdoctoral research in China needs to strengthen the international exchanges fundamentally, so as to create conditions for the internationalization of postdoctoral research achievements and improve the internationalization level of postdoctoral research.

4.1. Increase the Proportion of Post-doctoral Students Dispatched

An important part of the internationalization of postdoctoral system is to make use of policies or create conditions for local postdoctoral students to go abroad for research and exchange, so that they can carry out cutting-edge research in a world-class scientific research environment.

The national support for the internationalization of doctoral training is very strong. However, the post-doctoral public policy is similar in detail, the intensity is smaller. Although China Scholarship Council's program also includes postdoctoral students, it places them among visiting scholars, and places are limited. In particular, due to the strategic deficiency of the policy of going abroad for postdoctoral students, postdoctoral students lack competitiveness among visiting scholars. In view of this, the National Post-Doctor Regulatory Commission should seize the opportunity and take the initiative to cooperate with China Scholarship Council and other relevant institutions to organize and implement the dispatch of postdoctoral students as a separate project. At the same time, cooperate with the university to formulate the specific plan of postdoctoral dispatch. In conclusion, China Scholarship Council and the universities that recruit postdoctoral students should adjust the proportion of the number of postdoctoral students appointed by the government each year at least not less than the number of postdoctoral students admitted, so as to take concrete actions to improve the internationalization level of China's postdoctoral system.

4.2. Differentiated Funding for Foreign Postdoctoral Students

The policy of differential funding for postdoctoral students can be promoted by referring to the ongoing government projects. Differential funding means that different funding policies are implemented for domestic and foreign postdoctoral students, and the differentiated funding policies for postdoctoral students form a system rather than a case to be discussed. At the same time, research funding can also be differentiated policies. We will give appropriate support to postdoctoral researchers engaged in basic research, original innovation research and public welfare research, as well as those in the central and western regions and other remote and difficult areas. Due to the shortage of language and other aspects in the application of foreign postdoctoral students to the China Postdoctoral Science Foundation, we can also appropriately tilt toward them and increase the proportion of official funding to them, so as to attract more foreign and overseas doctoral students to do postdoctoral work in China.

5. Conclusion

The international exchange of postdoctoral system can be started from three aspects: first, continue to strengthen and expand the exchange of postdoctoral among governments of various countries. We can take advantage of the friendship year, education Year, culture Year and other cooperation and friendship projects signed by the Chinese government with many countries to carry out post-doctoral exchanges with some countries. Second, for countries represented by the United States that do not have government administrative institutions for the development of postdoctoral students, the National Post-Doctor Regulatory Commission may require Chinese universities setting up postdoctoral research stations to strengthen cooperation with universities in such countries, and carry out exchanges in various ways such as exchange and cooperative training. Third, the National Post-Doctor Regulatory Commission will actively contact, cooperate and exchange with relevant international postdoctoral organizations and associations, and lead the establishment of the World Postdoctoral Association at an appropriate time to strengthen the voice of China's postdoctoral system in the development of the world postdoctoral system.

References

- [1] Committee on Science, Engineering, and Public Policy, National Academy of Science, National Academy of Engineering, Institute of Medicine. Enhancing the Postdoctoral Experience for Scientist and Engineers: A Guide for Postdoctoral Scholars, Advisers, institutions, Funding Organizations and Disciplinary Societies [M] . Washington DC: National Academies Press, 2000.

- [2] Association of American Universities. Report and Recommendations: Committee on Postdoctoral Education [R] Washington DC: Association of American Universities 1998:108.
- [3] National Postdoctoral Management Committee. Notice on some Issues concerning current postdoctoral work [G]// Office of China Postdoctoral Science Foundation, Ministry of Personnel. Compilation of post-doctoral working documents.1999.
- [4] Circular of the State Science and Technology Commission on Several Issues concerning the Establishment of Postdoctoral Research Mobile Stations [G]// Ministry of Human Resources and Social Security, National Postdoctoral Management Committee. Compilation of post-doctoral Working Documents. Beijing: China Personnel Publishing House, 2008:241-242.
- [5] Personnel Department, National Postdoctoral Management Committee. Notice on The Issuance of Regulations on the Management of Postdoctoral students [G]// Ministry of Human Resources and Social Security, Compilation of working documents for postdoctoral students of national Postdoctoral Management Committee. Beijing: China Personnel Publishing House, 2008:229.
- [6] Moguerou, P. Doctoral and Doctoral Education in Science and Engineering: European Journal of Education, 2005,40 (4): 367-392.