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**NEWSLETTER**

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**Evaluation of the Effectiveness of the “Application-assessment” Admission Method in Doctoral Student Enrollment**

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A STUDY published in *Degrees and Postgraduate Education* took doctoral students from a university in double-first-class construction as an analysis sample. Firstly, the Logit regression analysis method was used to investigate the differences between doctoral students admitted through “application-assessment” method and those through none “application-assessment” methods. Secondly, Tobit regression and propensity value matching methods are used to compare the difference in scientific research output between doctoral students admitted through the “application-assessment” method and those admitted through other methods. In addition, this study also analyzed the disciplinary differences in scientific research output between the two categories of doctoral students. In this study, doctoral students admitted through “application-assessment” method are set as the treatment group, and those enrolled under the MD-PhD program, through general examinations and through exemption of examination are combined to form the control group. In terms of scientific research output, considering the influence of disciplines and the level of paper publication, the scientific output is weighted according to the existing research, and the grade is averaged according to the actual situation of investigation. Other variables are divided into three dimensions: individual characteristics, college background and training process. Individual characteristics include gender and academic aspirations; college background refers to the type of college at undergraduate and postgraduate stages; the training process variables involve tutors, scientific research training, and academic level. In the Logit regression analysis, this study uses individual characteristics and academic background as covariates.

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The results of the study are as follows:

- The logit regression analysis results show that, when other variables controlled, compared with those enrolled under the MD-PhD program, through general examinations and through exemption of examination, the doctoral students admitted in “application-assessment” method have higher academic aspirations, though less advantaged in college background.
- Tobit’s full-sample regression analysis results show that, under the premise of controlling other variables, compared with doctoral students admitted through other methods, doctoral students admitted through the “application-assessment” method have higher scientific research output during their PhD.
- The results of sub-sample regression analysis show that in science and engineering, the scientific research output of doctoral students admitted through the “application-assessment” method is significantly higher than that of doctoral students admitted through other methods; in the humanities and social sciences, the scientific research output of doctoral students admitted through the “application-assessment” method is higher than that of doctoral students admitted by other enrollment methods, but it is not significant at the 5% level.
- The analysis results of the control variables show that academic aspirations and relevant scientific research experience (hosting projects, participating in international conferences) can increase the scientific research output of doctoral students, but factors such as gender, whether the tutor is a returnee, whether there is an associate tutor, and college background have no significant impact on the research output of doctoral students.
- The results of the robustness test of the propensity value matching method are consistent with the results of the Tobit regression analysis, and both show that the “application-assessment” method has a positive talent selection effect, and this positive selection effect has certain disciplinary heterogeneity.

Based on the research results, the following two points are concluded: First, the doctoral students admitted through the “application-assessment” method are not advantaged in college background, but they have higher academic aspirations. Second, the research output of doctoral students admitted through the “application-assessment” method is higher than that of doctoral students admitted through non “application-assessment” methods. during the PhD period.

In view of this, the research suggests: First, colleges and universities should continue to promote the reform of the doctoral student enrollment system, further improve the “application-assessment” method, weaken the concern about the applicant’s college background, and make the “application-assessment” method more scientific and efficient. The “application-assessment” method should be improved to facilitate the fair selection of

doctoral students with high comprehensive ability and research potential. Second, colleges and universities should pay attention to the differences in disciplines when selecting doctoral students through the “application-assessment” method. While intensifying the reform and development of the “application-assessment” method in science and engineering disciplines, diversified enrollment paths should be explored in the selection of doctoral candidates in humanities and social sciences. Third, this study has the following shortcomings: (i) It did not analyze the specific differences between doctoral candidates admitted through the “application-assessment” method and those enrolled under the MD-PhD program, through general examinations and through exemption of examination. (ii) The survey samples of this study come from universities in “double first-class” construction, and whether the research results can be extended to other types of universities remains to be further tested.

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