



# The Influence of Student Ability and Family Background on Independent Admission Results of Universities in China

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## Introduction and Purpose

How to ensure wider and fairer university admissions is one of the key and difficult points in the reform and development of university admission systems in various countries. It directly affects access to higher education. In order to explore a new mechanism for selecting outstanding innovative talents, the Ministry of Education of China has implemented pilot programs for independent admission reform in some key universities across the country since 2003.

The key questions of the paper are whether the students with stronger ability are selected and whether fairness is taken into account during the independent admission.

## Conclusion

The students' overall ability and family background do have a significant impact on the results of independent admission. Students' overall ability and family background have a greater impact on the primary selection results.

Although the students' overall ability and family background have less influence on the final selection results, they also have a positive impact on the results of final selection.

Students from western cities are more likely to pass primary election, and students from eastern cities are more likely to pass final elections.

## Research Method and Main Process

This study mainly used data from a 2018 freshmen questionnaire at a high-quality university, a first-class university located in Sichuan province. 4,920 questionnaires were distributed, 4,904 valid questionnaires were returned, and the questionnaire efficiency was as high as 93%.

In order to try to measure the difference between those students in overall ability and family background, this paper mainly uses factor analysis and binary logistic regression models.

Through factor analysis, this study attributes the various variables in the questionnaire to several indicators to measure the students' overall ability, which lays a foundation for analyzing the influence of students' overall ability on the results of independent enrollment.

To explore the impact of students' overall quality and family background on the opportunities for independent admission, we will regard "whether to pass the primary selection of independent admission" and "whether to pass the final selection of independent admission" as a dichotomous variable ("no"=0, "yes"=1). This paper mainly uses the binary logistic regression model to analyze the factors affecting individuals who pass the primary selection (final selection) of independent admission.

## Results and Analysis

### Primary Selection

Male and Han students are more likely to pass the primary election of independent admission in the university we study. This may be because the university is a typical polytechnic university.

Unlike previous research, we finds that the advantage of western students through the primary enrollment is more obvious than that of the eastern students. This may be because the university studied is located in the western region and in the process of enrollment, it tends to recruit local students.

Students whose father's occupation and education level is higher and whose family income is higher are more likely to pass primary selection.

The students' subject interest and subject ability have a significant positive impact on the primary selection.

### Final Selection

Eastern students are more likely to pass final selection.

The probability of students whose mother got junior college education passing the final selection is significantly less than students whose mother only got primary school education.

Students living in provincial cities are more likely to pass the final selection than those living in rural areas.

Innovative skills have a significant positive impact on students' self-enrollment primary selection, indicating that final selection has a good effect on selecting students with better innovation skills.

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