Research on Strategy Model of University Enrollment

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\textbf{Abstract.} China's higher education has entered the stage of mass education, and the expansion of university enrollment has attracted widely attention in the whole society. Enrollment expansion is the first step in the university cultivation, and also is the most important step. Guided by the educational evaluation theory, this paper researches the enrollment strategy model of universities by using methods with the educational statistics.

This paper researches the enrollment strategy model of universities through the evaluation of two aspects: the enrollment source and the employment destination. By normalizing enrollment data of universities in past years, an evaluation model of students' quality is established, which adjusts the enrollment strategy of graduates for second years.

\textbf{Introduction}

Selecting and cultivating talents for the country are objective and task of university enrollment. The selection of higher-quality freshmen, is the promise of improving the quality of higher school education and teaching, and is also the key of higher education cultivate qualified talents. Higher education not only to meet domestic demand for higher educational quantity, but also to satisfy domestic people expectance for higher education quality. Students as recipients for higher education activities. The quality of school education and talents cultivation is on influenced by student source. And students’ learning and doing in university as an evaluation point. Whether is proper that higher school cultivate orient and strategy reflected the employment situation after graduation.

All levels of educational institution are transforming from the administrative functions to society service along with higher education system and university entrance examination the further deep reform. Higher schools’ cultivation work must press close to social, face the actual demand. In fact, examinee and all types of school are expected to higher quality at present. It promotes optimized university cultivation in some extent.

This paper makes the cultivation strategy of the university through two aspects: the enrollment source and the employment destination.

\textbf{Enrollment Source}

Researching comprehensive quality is the starting point in this paper. It draws lessons from comprehensive quality valuation model for university students by Wei Jingzhu\textsuperscript{[1]}, LiuLi\textsuperscript{[2]},to establish a source quality evaluation system with comprehensive evaluation indicator. The valuation model studies university source quality through comprehensive quality and learning achievement, as shown in Fig. 1.
Comprehensive quality includes some aspects listed below:

**Moral Quality.** The moral quality of Chinese university students is based on inheriting and carrying forward the traditional virtues of the Chinese nation. It has the main spirit of patriotism, collectivism, and national concept, and on the basis of the dialectical thinking of the world outlook, outlook on life, and values, within the main body of personality. Turn into a self-conscious behavior. These include: ideological and moral qualities, ideological and political quality, and the quality of legal discipline.

The moral quality refer to people’s ideological realm and level; the ideological and political quality refers to one’s attitude towards the country’s politics and a kind of support and belief in the country’s struggle goals [2].

**Humanistic Quality.** Humanistic quality includes two aspects, one is theory quality, namely literature, history, philosophy, art, ethics, etc. Another is practice quality, it is based on theory learning, contacting theory with practice, cultivate aesthetic ability.

Cultivate of humanistic quality can not only edify sentiment, but because art thinking and science thinking the two can establish a relationship of mutual complementation and mutual advancement. According to the survey shows that employing unit liking to employed graduate with high humanistic quality.

**Ability Quality.** Ability is a psychological characteristic of people complete certain activity. Ability quality refers to the ability of basic learning and practice.

Ability and scientific cultural knowledge have internal relations. Ability is the result of knowledge application. Mastering knowledge contributes to the formation of abilities. And only by turning knowledge into competence can knowledge really work. On the contrary, the formation of ability can make deepen the understanding and consideration of knowledge and prepare better condition for further study and mastering knowledge.

**Physical and Mental Quality.** Physical and mental quality is human corporeity and physical power. Healthy body, graceful posture, good physical fitness and motor skills are the foundation for the development of other qualities.

The psychological quality includes two aspects, one is the psychological quality related to cognitive activities, such as the innovativeness of thinking, and the other is a series of psychological qualities such as will and perseverance. People may encounter difficulties, setbacks, and obstacles in the process of study, work, and life. This requires people to have good and healthy psychological qualities to deal with these difficulties.

**Graduation Whereabouts**

Employment is an important project for people’s livelihood. Employment issues for university graduate are related to social stability, involving millions of households and affecting the vital interest of the students. As China’s economic and social development has entered a new normal, the downward pressure on the economy continues to increase, the industrial structure has been transformed and upgraded, and the employment situation has become complicated. The employment and entrepreneurship work for university graduates faces many new pressures, challenges and new issues [4].
The new characteristics of graduate employment under the new normal economy as follows:

**The Proportion of Students Entering the School Continues to Increase, and Flexible Employment Requires More Attention.** With the continuous reform of the national graduate admission policy and the complex changes in the macroeconomic situation, the proportion of university students, especially undergraduates, who choose to continue their education in further studies continues to increase.

From the statistics of graduation, we can see that as the economy has entered the new normal, new forms of industries and new industries have emerged, and the transformation and upgrading of traditional industries have given birth to many new occupations and jobs, and the proportion of graduates with flexible employment has been higher than in the past. In particular, under the “Internet +” financial background, there has been a type of non-stable employment derived from the Internet economy, such as online shop-building and online part-time employment. Many graduates did not find a “fixed occupation” that they hoped to engage in for a long time. They tend to choose some "temporary" and "flexibility" jobs as transitions. This is a "convenience policy" in the context of structural industrial restructuring and adjustment [5].

**Geographical Distribution Still Needs to be Adjusted, and the Unit Industry is Becoming More Optimized.** On the whole, Beijing, Guangdong, Shanghai, Tianjin, Jiangsu, and Zhejiang have attracted more graduates in economically developed regions. The proportion of graduates employed in these regions has exceeded twice the number of students. Among them, the ratio of the number of graduates in employment in Beijing, Shanghai and Guangdong area to the proportion of local students is as high as 10 times! The outflow of graduates in Heilongjiang, Henan, Hebei, Inner Mongolia, Shanxi, Xinjiang, Qinghai, and Tibet is a serious situation. Therefore, guiding graduates to return to the relatively backward areas of economic development, remote and minority areas will be the focus of work in universities for a certain time in the future!

From the industry distribution of graduate, more than 70 percent of them working in five area, such as manufacture, education, research and technique service, health and social job, information transmission and information technique service. Work unit has a wide distribution and a gradual structure. From the unit flow, it improved significantly that graduates working in government agencies, institutes and research institute.

**The Market Demand Pressure is not Reduced, and Grassroots Employment Still Needs Attention.** The downward pressure on the domestic economy continues to increase. The growth of GDP has continued to decline, while the number of graduates from general universities and universities has continued to increase since 2010. In 2016, the number of graduates from university is expected to reach 7.65 million, an increase of 160,000 over 2015, and the total pressure on 2016 graduate employment has further increased. From the perspective of employers, the overall demand for university students has fallen sharply. Although the number of campus recruitment is relatively stable, the effective demand position of employers for graduates is decreasing.

Strategy Model of University Enrollment

**Fairness.** Fair the prerequisite of education harmonious development, the fairness of opportunities for enrollment is reflected in the development of provincial and provincial enrollment plans. Only the number of people admitted in each province and the distribution of educational resources in each province can be unified so that citizens can enjoy the right to a high-quality higher education resource in a fair manner.

**Scientific.** The establishment of the provinces' enrollment plans by provinces is actually a process of comprehensive analysis and forecasting of internal and external factors that influence the enrollment planning of universities. It is a multi-objective optimization decision process under multiple conditions constraints. It is necessary to ensure the continuity of the enrollment planning policy and to make it more scientific and rational.

**Stability.** The distribution of university enrollment quotas to all provinces should be based on historical enrollment quotas. Changes in the enrollment plan should be gradually optimized on the basis of relative stability, otherwise it will cause social doubts and even criticism.
**Flexibility.** Under the premise of guaranteeing the autonomy of university enrollment, it is also necessary to satisfy the government's requirements for macro regulation of the enrollment plan. For provinces where the enrollment rate in higher education is at a disadvantage, policy adjustments should be adopted to ensure that the number of planned enrollment in universities and universities in the province can increase year by year.

The preparation of provincial and provincial enrollment plans for universities and universities involves many factors such as economy, culture, and education level. It has the characteristics of complex decision-making goals and more participants. This article analyzes the strategic objectives for this situation, as shown in Fig. 2.

![Figure 2. Recruitment Strategy.](image)

University striving for high-quality students for their own development, construction, and needs. Therefore, the provincial enrollment plan will be tilted toward the province of education, so that candidates in these provinces will have more opportunities to enjoy quality education resources. Therefore, in order to guide universities and universities to formulate a provincial and enrollment plan that is scientifically reasonable, socially pleasing, and satisfactory to universities and universities, this article is based on the guiding ideology and basic principles laid down by the provincial enrollment plan, focusing on the rational distribution of national students and the development of universities themselves. The need for comprehensive consideration, proposed a recruitment strategy model.

The compilation enrollment plan of University and university is divided into two stages: The initial allocation stage aims to meet the stable development of the university and determine the basic value of the enrollment plan. The second allocation stage aims at the rational allocation of educational resources and determines the adjustment value of the enrollment plan. Finally, the basic value, the adjustment value and weighting summation. The province-wide enrollment plan is obtained through the role of the fluctuation limiting factor and attenuation factor. In addition, the education administration department can carry out macro-control over the provincial and provincial enrollment plans through policy adjustment values.

Model formula:

\[ T = \left( \theta \cdot B + (1 - \theta) \cdot (C + D) \right) \cdot \beta + \alpha + Z \]

(1)

Where: \( T \) —— A university's provincial enrollment plan; \( B \) —— the basic value (The initial allocation); \( C \) —— the adjustment value (The second allocation); \( D \) —— the adjustment value (Adjusted according to the enrollment and employment situation in the past 5 years); \( Z \)
Graduation rate formula:

$$G = \frac{\text{Employed Population}}{\text{Number of Admissions}}$$  \hspace{1cm} (2)

$$D = \sqrt{\frac{1}{n} \sum_{i=1}^{n} (G_i - \bar{G})^2}$$  \hspace{1cm} (3)

I is the last 5 years, $\bar{G}$ is Average rate of employment in the past five years.

The model has the following characteristics:

1. According to the guiding principle of “planning the quality of students, focusing on regional balance”, this model proposes the realization of secondary distribution of enrollment plans. On the one hand, the calculation of the basic values through the initial distribution reflects the demand of universities and universities for high-quality students and principle of stability. On the other hand, the adjustment value is calculated through secondary distribution to endure the rational allocation of educational resources and reflects the principle of fairness.

2. Comprehensive analysis, compile scientifically. This model, 15 percent parameters such as the quality of students, university, and government are taken into consideration, and the weights of the 15 parameters are obtained through scientific calculations of historical and current data, reflecting the scientific nature of the plan designation.

3. Well stability, strong flexibility. As this model divides the province's provincial planning into basic values (about 50%-70%), adjustment values (about 30%-40%), and policy regulation values. It not only does not makes the annual provincial enrollment plan fluctuate, but it also limits human factors through fluctuation control and attenuation factors, so that the plan can also dynamically change according to the actual situation in the year. Moreover, the policy regulation value can also directly reflect the intention of the leader or the government into the formulation of the enrollment plan, making the formulation of the plan more flexible and controllable.

**Summary**

In the current situation, that quality education resources are scarcity, the establishment of a scientific and reasonable provincial enrollment plan is a basic requirement for education fairness. It not only requires certain theoretical guidance and scientific basis, but also need an effective set of mechanisms and measures. The program proposed in this paper is based on a comprehensive analysis of the internal and external factors that affect the preparation of provincial enrollment plans. It considers that the needs of both the national students reasonable distribution, the development of universities. It establishes a secondary distribution of provincial enrollment plans. The model provides a scientific and rational basis for the preparation of provincial and university enrollment plans for various universities, optimizes the allocation of higher education resources, better protects citizens’ right to equal access to quality higher education resources, and promotes educational equity.

**References**


