Analysis on the Characteristics of the Current Female Presidents of Key Universities in China

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ABSTRACT
In order to understand the employment situation of female presidents in China’s key universities, this paper collected the employment data of 139 universities through various resources such as internet, and sorted out 8 samples of female presidents. Then by coding and analyzing the personal information of their resumes, it is pointed out that this group has many common characteristics in demography, academic background, social part-time job, post duties, etc. The results indicate that the female principals of key universities in China are mainly Communist Party members in their fifties, specialists with doctoral degrees in the science field, and who gain promotion within universities and have various academic part-time jobs.

Keywords: China; key universities; female presidents; characteristics

1. INTRODUCTION
With the increasing number of women receiving higher education, women's participation in higher education is also reflected in the field of educational management. As the top manager of university administration, the identity of female university presidents is of great significance to the development of universities. The development and expansion of female university presidents has promoted the development of gender equality and female leadership. According to the 2011 Academic Ranking List of American Universities published by Shanghai JiaoTong University, 7 of the top 20 presidents of world-class universities are women, including Harvard University, Massachusetts Institute of Technology and Princeton University [1].

Although the number of female head teachers has been increasing in recent years, the overall proportion remains low. The female leaders are described as "the velvet hammer" in the context of masculinity [2]. However, with the development of female principal groups, some scholars earlier pointed out that, compared with the metaphors, such as "glass cliff" and the "glass ceiling", female principals today are no longer faced with impenetrable obstacles, but more like the labyrinth described by Eagly and Carli[3]. They believe that "there are countless obstacles in the maze, some of which are hidden, while others can be seen through at a glance" [4].

The research on female principals in foreign countries started earlier and became more mature. Mary (2006) studied the success qualities of female presidents of four-year universities or colleges in the United States [5]. Jack (2009) studied the role and responsibility of female principals [6]. However, the analysis of female university presidents in China mainly focuses on foreign first-class universities. Li Sumin, Luo Weiwei and Niu Menggang (2016) studied the characteristics of group leadership quality from the perspective of female university presidents in Europe and the United States [7]. Niu Menggang (2018), taking female presidents of American research universities as examples, elaborated the social structure map of female presidents from five aspects [8]. In fact, there are few studies on female university presidents in China, among which Wang Yinhan and Yu Kai (2015) conducted an investigation and research on female leaders in Chinese institutions by using the research method of Curriculum Vitae, and answered the common characteristics of these female leaders from ten dimensions[9]. These studies provide an analytical framework for us to study female principals, but there is no specific analysis on the leadership of female principals.

2. DATA SOURCE AND SAMPLE
In September, 2017, the Notice on Publishing the List of "double first class" Construction jointly issued by the Ministry of Education, the Ministry of Finance and the National Development and Reform Commission, making it clear that there are 137 "double first class" construction universities in China, including 42 world-class universities and 95 world-class discipline construction universities. It should be pointed out that the "double first class" universities include 39 former "985" universities and 73 "211" universities. In addition, three universities (China University of Geosciences, China University of Petroleum and China University of Mining and Technology) all have two campuses and appoint different leading bodies, so the two campuses of these three universities are counted according to different universities. These key universities represent universities of different types, levels and regions. Studying the female presidents of these universities will...
help us better understand the common characteristics of female presidents and provide ideas for the construction of female leaders.

The data collected are mainly from online resources, including various official websites of colleges and universities, provincial people's governments, the Ministry of Education, the news of the Communist Party of China, China's economy, etc., which are repeatedly checked and verified by search engines such as Google and Baidu. By the end of April 2021, the data collection of this research has been collected from all the presidents' resumes of 38 “985” universities (except National University of Defense Technology), 76 "211" universities, and 25 first-class discipline construction universities. Finally, the employment data of 8 female presidents have been sorted out.

3. DATA ANALYSIS AND RESULTS

Today, there are only 8 female principals in 139 key universities. Among the 38 "985" universities, there are only two female principals, occupying 5.1%; There are only 4 female principals in 76 "211" universities, accounting for 5.3%, and 2 female principals in 25 first-class discipline construction universities, accounting for 8% (see Table 1).

| Types of university | Total | Number of female presidents | Percent (%) |
|---------------------|-------|-----------------------------|-------------|
| “985”               | 39    | 2                           | 5.10        |
| “211”               | 76    | 4                           | 5.30        |
| world-class discipline construction | 25   | 2                           | 8           |

3.1. Demographic Characteristics

At present, some demographic indicators (such as gender, ethnicity, age, political outlook, etc.) are used by academia to describe the natural characteristics of principals. Due to the particularity of China's national system, colleges and universities implement the “principal responsibility system under the leadership of the Party Committee”, that is, the Party Committee of colleges and universities uniformly leads the school work, and the principal is the legal representative of the school and is fully responsible for the administrative work of the school. The political outlook of CPC members is one of the important characteristics of university presidents in China. Six of the eight female principals are CPC members, accounting for 75%, and the other two are members of the Revolutionary Committee, accounting for 25%. Secondly, as far as ethnic groups are concerned, the eight female principals are all Han ethnic group. Finally, in terms of age, the initial age of the five female principals is no less than 55 years old, accounting for 67.5%; Three of them were younger than 55 years old, accounting for 32.5%. The average working age is about 55 years old. (see Table 2)

| Indicators     | Details            | Percent (%) |
|----------------|--------------------|-------------|
| Age            | No less than 55    | 67.5        |
|                | Less than 55       | 32.5        |
| Political Outlook | Communist party members | 75            |
|                | others             | 25           |
| Ethnic Group   | Han                | 100          |
|                | Minority           | 0            |

3.2. Characteristics of Educational and Academic Background

Education background, generally refers to personal education experience; degree, namely a person obtains knowledge through study and the mark of corresponding study ability level, by the institution of higher learning that the country authorizes issue. Academic qualifications and degrees can largely reflect a person's level of education and academic attainment. The survey on the academic qualifications of eight female principals shows that all principals have doctoral degrees. It can be seen that having a doctorate is an important condition for becoming the president of a university in China. Subject background refers to the category scholars study in nature, which is a certain scientific field or a branch of science. Female principals are mainly distributed in three disciplines: engineering, pedagogy and economics, with the highest proportion of engineering, accounting for 37.5%. At the same time, they have made achievements in their respective disciplines and are experts in a certain field (see Table 3). For example, Tian Hongqi, president of Central South University, has made important achievements in high-speed rail aerodynamics and driving safety technology in windy environment. As some scholars have pointed out, the phenomenon of "expert governance" in Chinese universities is, to a great extent, "scientist governance" or "engineer governance" [10]. With the internationalization of higher education, studying or working abroad can broaden horizons and enrich
knowledge. What’s more, overseas visiting experience provides an environment for leaders to study and develop in a cross-cultural way. According to their CV, the international experience of university leaders only three female principals had international backgrounds, accounting for 37.5%.

Table 3. The education background of female presidents

| University                        | Name         | Degree                  | Study Abroad                  | Specialty                                      |
|----------------------------------|--------------|-------------------------|-------------------------------|-----------------------------------------------|
| Central South University         | Tian Hongqi  | Doctor of Engineering   | Senior visiting scholar at Duke University, USA | High-speed rail aerodynamics                  |
| Shandong University              | Fan Liming   | Ph.D. in Economics      |                                | Financial, Tax theory and policy              |
| Central University of Finance and Economics | Wang Yaoqi   | Ph.D. in Economics      |                                | Investment, project management                |
| Central China Normal University  | Hao Fanghua  | Doctor of Engineering   |                                | Protection and planning of water resources     |
| China University of Petroleum    | Wu Xiaolin   | Doctor of Engineering   | Senior visiting scholar at Bangor University, UK | Fluid-solid two-phase flow separation technology and theory |
| Henan University                 | Tan Zhen     | Doctor of education     |                                | Education policy                              |
| University of Chinese Academy of Sciences | Wang Yanfen | Doctor (unknown)       |                                | Grassland/wetland ecosystem                   |
| Nanjing University of Posts and Telecommunications | Ye Meilan  | Doctor of History       | Training at the University of California, Berkeley | Management and research of higher education |

3.3. Characteristics of Employment Experiences

According to the survey, all the eight female presidents have university working experiences and almost all have been vice presidents for many years, which also reflects the upward position of university presidents at all levels, that is, they are promoted from vice presidents to presidents[11]. For example, Fan Liming, president of Shandong University, served as president of Shanghai University of Finance and Economics for five years. Tan Zhen, president of Henan University, served as dean of Huanghuai College for four and a half years. The other 50% belongs to the school mobility. Cross-university communication can bring about different management styles and cultures of different universities, which is conducive to academic contention and prosperity of universities. Finally, 62.5% of female presidents held academic part-time jobs in addition to their university positions.(see Table 4)

3.4. Characteristics of Job Responsibilities

In terms of the job responsibilities, among the eight female principals, seven can collect the job division. Among them, six people are responsible for school administration, accounting for 86%. It can be seen that the job responsibilities of female principals are not different because of their gender, and they are generally responsible for school administration as male principals.

Table 4. Employment experiences of female presidents

| University                        | Name         | College working Experience                  | Academic part-time job                                           |
|----------------------------------|--------------|----------------------------------------------|----------------------------------------------------------------|
| Central South University         | Tian Hongqi  | Vice President of Central South University   | Chairman of the Finance Teaching Steering Committee of the Ministry of Education, etc., |
| Shandong University              | Fan Liming   | 1. Vice President of Shandong University 2. President of Shanghai University of Finance and Economics | Vice President of China Investment Association, etc., |
| Central University of Finance and Economics | Wang Yaoqi   | Vice President of Central University of Finance and Economics | Deputy Director of the National Yangtze River Conservation and Restoration Joint Research Center |
| Central China Normal University  | Hao Fanghua  | Vice President of Beijing Normal University  |                                                                  |
| China University of              | Wu           | Vice President of China                      |                                                                  |
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