

# Influential Factors Analysis on the Willingness to Staying of College Students in Wuhan

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**Abstract:** Talents are vital to the development of a city. In recent years, Chinese cities have enacted various policies to attract talents. Wuhan, the city just survived the COVID-19 pandemic, are struggling with how to retain talents. This paper collects the factors that influence the willingness of Wuhan college students to stay in Wuhan after graduation by questionnaires, and analyses the data through difference analysis and regression analysis. Finally, it is concluded that the main factors that affect college students' willingness to stay in Wuhan including Portrait of City, Living Experience, Government Policies and Personal Emotions; furthermore, Portrait of City and Government Policies are the most profound influences on college students' willingness. Based on these four factors, this paper gives some reasonable suggestions and countermeasures.

## 1. Introduction

Since the 19th National Congress of the CPC, Chinese economic structure was facing an important transformation. The "high-speed" economic developing mode has been transformed into "high-quality" developing mode, and pursuing "faster and better" economic development. As the core and motive force of high-quality economic development, talents are playing an important roles in regional economic development. Cities have set off a fierce "competition for talents", that is, through publishing talent attraction policies to retain local excellent talents, attract foreign talents, form the effect of talents agglomeration.

Wuhan, the capital of Hubei province, the largest city in central China and the city with the largest number of college students in China, is facing a serious problem of talents draining. According to the Report on Employment Quality of Wuhan University Graduates in 2020, from 2017 to 2020, only about 25% graduates of Wuhan University chose retaining in Hubei province. The problem of talents draining is extremely serious.

## 2. Related Works

At present, there are abundant researches on the factors affecting city choice for employment. Xiaohao Ding (2013) took the fresh graduates with high education as the research object and found that although the Chinese government formulated a series of employment policies, the employment preference of talents with high education was not affected by the policies[1].

Wei Liu (2014) found that college students with different urban and rural household registration also have employment differences, and believed that this is because of the differences in urban and rural household registration system, which leads to the differences in the comprehensive quality of graduates[2].

Jiangtao Yang (2010) conclude that the important factors restricting employment include English level, computer level, work experience, comprehensive quality, academic performance, etc. City college students pay more attention to academic performance, while rural college students pay more attention to computer level[3].

Tao Li and Juyan Zhang (2009) studied the influence of gender, origin of students and parents' corresponding education level of college students on their employment and career selection through regression analysis, and discussed the influence degree of different influencing factors[4].

Maria and Pashourtidou et al. (2012) found that the completion of college students' research

courses, family location and major had the most critical impact on the employment of college students[5].

### 3. Model Building

According to the relevant works, it is found that the factors affecting college students' choice of employment cities are diversified and complex. This paper will mainly consider the variables from the portrait of city and the emotion of college students. According to the existing research results, the main research aspects of portrait of city mainly include city reputation, living environment, living pressure, government publicity and other influential factors. The emotion of students mainly includes two aspects. One is the attitude of family, that is, family members will affect college students' choice of employment city. The other is students' feeling to their alma mater that having a greater impact on their choice. Therefore, these variables are selected as the main research variables in this paper.

In addition, considering the actual situation of Wuhan and the policy of "Millions of College Students Retaining in Wuhan Project" proposed by Wuhan Government in recent years, the government policies is added as a separate influencing factor. The model is shown in figure 1.

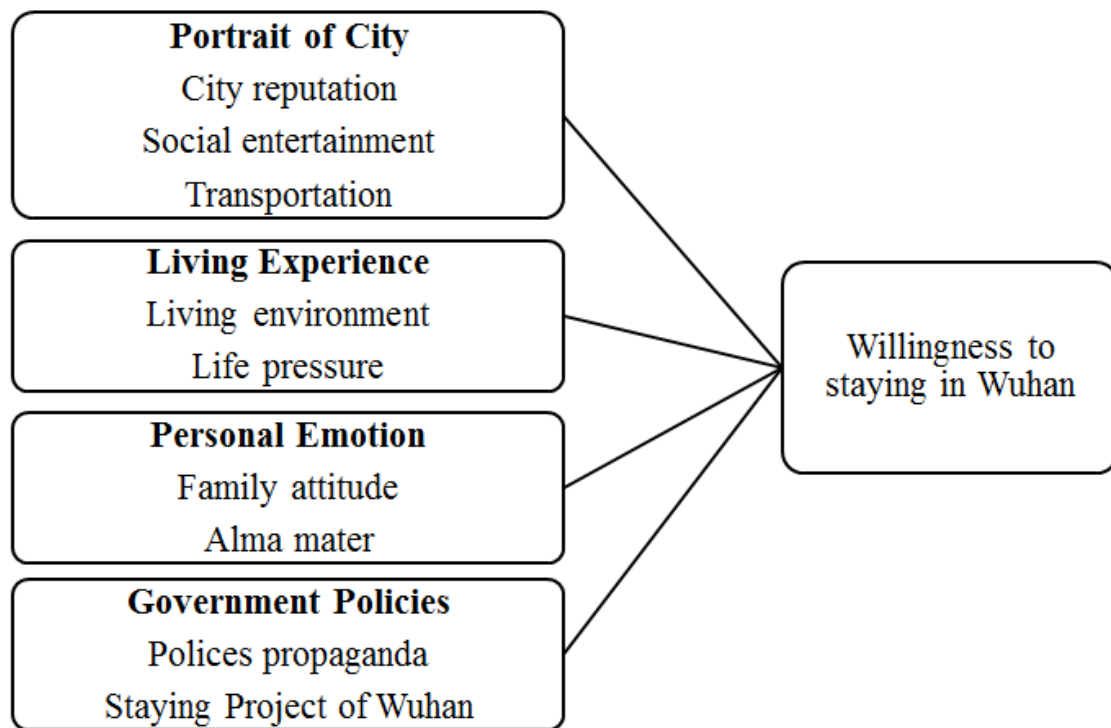


Fig.1 Influencing Factors Model of Staying Willingness

### 4. Data Collection and Analysis

According to the model above, we design a questionnaire. The questionnaire is mainly composed of three parts: basic information of respondents, employment intention and influencing factors of willingness to stay in Wuhan. The first part is the basic information of the survey, including the basic information such as gender, age and native place. The second part is the employment intention, including the expected salary, the nature of the employment unit, etc. The third part is the influencing factors of the willingness to stay in Wuhan.

In addition, a small-scale pre-survey was conducted before the questionnaire was officially issued. According to the actual results of the pre-survey, the questions were repaired and the final formal questionnaire was formed.

#### 4.1 Basic Information Analysis

The collected valid questionnaires were summarized and sorted out, and the basic statistical analysis was carried out. In the final sample, male college students accounted for 58.29%, female college students accounted for 41.71%; From the perspective of native place, students from Hubei accounted for 72.09%, students from non-Hubei accounted for 27.91%. This study is mainly based on undergraduate students. In the sample, students from “985 universities”(The best 2 universities in Wuhan), “211 universities”(5 Major universities in Wuhan) and ordinary universities account for 10.91%, 19.38% and 63.96%, respectively. College students accounted for 5.45%. See table 1.

Table 1 Basic Information Of the Sample

	Category	Number	Percentage
Gender	Male	545	58.29%
	Female	390	41.71%
Native Place	Hubei	674	72.09%
	Non-Hubei	261	27.91%
School Level	985 Universities	102	10.91%
	211 Universities	184	19.68%
	Ordinary Universities	598	63.96%
	Colleges	51	5.45%

## 4.2 Difference Analysis

When the students have different demographic characteristics, their willingness to stay in Wuhan will also vary greatly. Therefore, we use the chi-square analysis to test the differences in gender, native place and school level of college students on their willingness to stay in Wuhan. See table 2.

Table 2 Difference Analysis Results

Variable	Category	Number		Percentage		X <sup>2</sup>	P
		Stay	Leave	Stay	Leave		
Gender	Male	341	204	62.59%	37.41%	8.743	0.003
	Female	242	148	62.51%	37.49%		
Native Place	Hubei	519	155	77.03%	22.97%	38.291	0.008
	Non Hubei	178	83	68.19%	31.81%		
School Level	985 Universities	87	15	85.24%	14.76%	2.534	0.487
	211 Universities	105	79	57.65%	42.35%		
	Ordinary Universities	345	253	57.92%	42.08%		
	Colleges	23	28	55.98%	45.02%		

As can be seen from the analysis results, when gender and native place are cross-analyzed with the willingness to stay in Wuhan, the P values obtained are less than 0.05, indicating that gender and native place have significant impact on the willingness to stay in Wuhan of college students.

However, the school level is not the main factor that affects college students' willingness to stay in Wuhan. According to the results of cross-analysis, P value is 0.487, greater than the given significance level of 0.05, so the school level has no significant influence on the willingness of college students.

## 4.3 Regression Analysis

In order to further analyze the influence of each factor on college students' willingness to stay in Wuhan and its influence degree, we use regression analysis to further analyze.

We take the willingness to stay in Wuhan as the explained variable, and the influencing factors include the four factors in the model.

According to the above difference analysis, in demographic characteristics, gender and native place also have significant influences on college students' willingness to stay in Wuhan. Therefore, it is necessary to take these two demographics as control variables, so as to eliminate their influences on explained variables, make the results more accurate. Furthermore, because the demographic characteristics are unchangeable in short time, we use the method of control variables

to analyze the influence of four factors in the model on the willingness to stay in Wuhan. Binary Logit regression analysis was conducted by SPSS, and the results are shown in Table 3.

Table 3 Binary Logit Regression Analysis Results

Variable	B	S.E	Wals	Df	Sig.	Exp(B)
Gender	0.403	0.168	5.814	1.000	0.006	1.506
Native Place	1.281	0.177	29.008	1.000	0.000	3.591
City Portrait	0.968	0.083	33.921	1.000	0.004	2.632
Living Experience	0.565	0.092	39.068	1.000	0.000	1.765
Government Policies	0.977	0.084	35.058	1.000	0.014	2.855
Personal Emotion	0.609	0.087	49.869	1.000	0.000	1.846
C	0.106	0.155	0.471	1.000	0.002	1.121

According to the regression results, Gender, Native place, City portrait, Living experience, Government policy and Personal emotion are all significant at the 0.05 confidence level. The specific analysis is as follows:

From the perspective of demographic characteristics, the results of regression analysis shows that native place and gender significantly affect college students' willingness to stay in Wuhan. In addition, the Exp (B) under gender characteristics is 1.506, indicating that the willingness of male college students to stay in China is 1.5 times that of female college students. Similarly, the Exp (B) value under the characteristics of native place is 3.591, indicating that college students from Hubei province are 3.5 times more willing to stay in Wuhan after graduation than those from other provinces. It can be seen that there is a big gap between them.

For the other four factors in the model, the corresponding P value of City Portrait factor is 0.004, indicating that City Portrait has a significant impact on college students' willingness to stay in Wuhan. The B value is 0.968, indicating that it is positive correlative with the willingness. The Exp (B) value is 2.632 shows that if Wuhan increase 1 score in City Portrait, the willingness to staying will increase by 2.63 times. In another word, the enhancement of Wuhan's City portrait will greatly increase the willingness of staying in Wuhan.

In the same way, we can know that Living experience, Government policies and Personal emotion are all significant effect on the willingness of staying in Wuhan, and all of them are positive correlative with the willingness. Among them, it is Government policy that has the greatest influence on the willingness. The influence of Government policies on students' willingness is even greater than the City portrait reach to 2.86 times, much higher than Living experience and Personal emotion. Living experience and Personal emotion are also positive correlated with willingness, but the influence degree are much lower, only about 1.8 times.

In short, Government policies and City portrait have the most prominent impact on the willingness to stay in Wuhan.

## 5. Conclusions and Suggestions

From the analysis above, we can conclude that:

1) Gender and Native place of college students have a significant influence on the willingness of college students to stay in Wuhan. However, there is no significant difference in percentage between male and female college students in their willingness to stay in Wuhan.

2) Among the factors influencing college students' willingness to stay in Wuhan, City portrait, live experience, Government policies and Personal emotion all have significant influence on college students' willingness, but the two factors that have a greater influence are Government policy and City portrait.

Combine the model and questionnaires, we can see that the City portrait mainly includes city reputation, city traffic condition, city salary and city housing price, which are the most concern by college students. The government policy factors mainly include government propaganda and the Staying Project of Wuhan. There are two prominent problems: the lack of policy publicity by colleges and the lack of project policies implementation.

Base on the conclusion above, we give some suggestion to help Wuhan retaining talents.

1)Wuhan should adopt a series of policies, such as land and taxation, to attract more enterprises to settle in Wuhan, especially high-quality enterprises such as the world's top 500 enterprises. Since COVID-19, Chinese government has given Wuhan a lot of preferential policies to help Wuhan recover from the epidemic. Wuhan needs to take this opportunity to accelerate the introduction of high-quality enterprises, and actively optimize the industrial structure, so that Wuhan graduates can find suitable jobs in Wuhan, so as to better retain these talents.

2)Wuhan government should fully understand the needs of college students and develop policies that actually address their problems. According to the different situation, Wuhan government should give a variety of optional policies, so as to fully exploit the advantages of the policies, and ensuring policies implementation. At same time, Wuhan government should actively encourage colleges and universities to organize policies studying, so that all of the college students can know the talent policies, reasonably interpret the talent policies and understand the talent policies.

3)In the survey, it was found that the low salary level was a major reason that most graduates did not want to stay in Wuhan. Most graduates prefer to work in first-tier cities like Beijing, Shanghai and Shenzhen just because of the higher salary and welfare. Therefore, Wuhan government should reasonably provide certain subsidies to graduates staying in Wuhan, and actively guide enterprises to make more enterprises realize the importance of outstanding talents for the long-term development of enterprises, so as to fundamentally improve the level of salary for talents.

4)Four years of wonderful college life has a profound impact on everyone's life. On the one hand, Wuhan can establish a close emotional connection with college students through its Alma mater, so as to improve college students' sense of identity and belonging to Wuhan, thus forming their attachment and love for Wuhan, and finally willing to develop together with Wuhan. On the other hand, let more college students' parents know about Wuhan, recognize Wuhan, think that Wuhan has development potential, and support their children to stay in Wuhan for long-term development.

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