

# **Analysis on the Influence Factors of College Students' Willingness to Participate in Community Volunteer Service based on Logistic Model**

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**Abstract.** A survey of 400 college students in Sichuan Province shows that the proportion of college students participating in community volunteer service is relatively high. Through logistic regression model analysis, the main factors influencing college students' willingness to participate in community volunteer service are gender, household registration type, whether or not the only child, the number of previous participating times, activity organization form and evaluation of community volunteer service. Therefore, formulating appropriate incentives can effectively strengthen the willingness of college students to participate in community volunteer service.

**Keywords:** College students; Community volunteer service; Logistic regression model.

## **1. Introduction**

This study designed a questionnaire from the perspective of community volunteer service supply and investigated 300 college students' participation in community volunteer service in Sichuan Province. It combines logistic regression model, adopts SPSS analysis tool to conduct quantitative analysis of the influence factors of college students' willingness to participate in community volunteer service, and further puts forward policy recommendations.

## **2. Survey Method, Sample Feature and Willingness to Participate in Community Volunteer Service**

### **2.1 Survey Method and Sample Distribution.**

Questionnaire survey is the main method in this study. A total of 430 questionnaires were distributed to students in major universities in Chengdu and finally 400 valid questionnaires were collected after eliminating problematic samples. Therein, 100 were from University of Electronic Science and Technology, 80 were from Sichuan University, 80 were from Southwest Jiaotong University, 80 were from Southwest University of Finance and Economics, and 60 were from Sichuan Agricultural University.

### **2.2 Sample Feature Analysis.**

The proportion of boys and girls in this sample is 52% and 48%. Therein, 23% are freshmen, 26% are sophomores, 32% are juniors and 19% are senior students; 55% are urban residents and 45% are rural residents; all the subjects are undergraduates; 59% are the only child in the family; additionally, 254 of the respondents had participated in community volunteer service, accounting for 63.5% of the total. There are 96 of them participating one community volunteer service, 83 participating in two, and 75 participating in three or more times.

### **2.3 The Willingness of College Students to Participate in Community Volunteer Service.**

The survey found that 322 of the 400 college students clearly expressed that they would like to participate in community volunteer service in the future, accounting for 80.5%; 78 said they would not like to participate in community volunteer service in the future, accounting for 19.5%.

For “Have you participated in community volunteer service more spontaneously organized by students or more organized by universities?” In response, 37.5% of the students chose “more spontaneously organized by students” and 62.5% chose “more organized by universities”.

Among the choices of the question “If you can get some form of feedback after participating in community volunteer service, which kind of feedback will keep you willing to participate in such activities?”, the most three selected answers are “written recognition and honor certificates of university or community”, “reporting and propaganda of news media” and “oral affirmation and recognition”, accounting for 33%, 30% and 27% respectively. The lowest-ranked choices are “credit plus award”, “thanks from the community service recipients” and “mental awards from the organizers: with the proportion of 21%, 9% and 5%.

When asked “Do you think it is meaningful for college students to participate in community volunteer service”, 97% of the students chose “meaningful” and only 3% chose “meaningless” among which 69% of the students hold that the significance lies in “demonstrating the sense of responsibility and the spirit of the youth”, 63% think that it lies in “better understanding the people’s livelihood, broadening their horizons and exercising ability”, 55% chose “helping the public welfare”, 53% chose “enriching campus life” and only 31% of the students chose “getting university awards and other people’s recognition”.

### 3. Analysis of the Factors Influencing College Students' Willingness to Participate in Community Volunteer Service

#### 3.1 Variables Definition.

Table 1. Variables definition

Variable name	Value	Variable Assignment
Gender	1-2	Female=1; Male=2
Grades	1-4	Freshman=1; Sophomore=2; Junior=3; Senior=4
Types of household registration	1-2	Urban household registration=1; Rural household registration=2
Only-child	1-2	Only-child=1; Non-only-child=2
Participation	1-4	No participation=1; participated one time=2; participated two times=3; participated more than three times=4
Organizational form	1-2	Spontaneously organized by students=1; Organized by universities=2
Activity evaluation	1-2	Negative evaluation=1; Positive evaluation=2
Willingness to participate	1-3	Reluctance=1; Preference=2; Very willing=3

#### 3.2 Analysis of Logical Regression Model.

Firstly, the overall fitting of Logistic model is tested. According to Table 2, the logarithmic likelihood of - 2 of the model decreases from 280.738 to 141.354 and the P value was less than 0.05 when the dependent variables assigned in Table 1 are added, indicating that the model fits well.

Table 2. Analysis of Logical Regression Model

	Model Fitting Criteria	Likelihood ratio test		
	- 2 logarithmic natural values	Chi square	df	significant level
Intercept only	280.738			
Final	141.354	46.33	20	0.000

### 3.3 Result Analysis.

According to Table 3, the factors influencing college students' willingness to participate in community voluntary service are analyzed from seven aspects: gender, grade, types of household registration, only child, past participation, organization form and activity evaluation.

Table 3. Result analysis

Variables	Classification Index	Preference			Very willing		
		Regression Coefficient	P Value	OR value	Regression Coefficient	P Value	OR value
	Intercept	-1.183	0.004		0.974	0.000	
Gender [Female]	Male	0.261	0.000	1.374	0.175	0.000	1.148
Grade [Freshman]	Sophomore	-0.735	0.118	0.452	-0.769	0.003	0.967
	Junior	-0.416	0.153	0.861	-0.477	0.166	0.753
	Senior	0.028	0.005	1.004	0.279	0.000	1.438
Household registration type [Urban]	Rural	-1.158	0.000	0.219	-0.979	0.000	0.315
Only-child [Yes]	No	0.368	0.001	1.256	0.147	0.000	1.119
Participation [No participation]	One time	0.277	0.000	1.193	0.589	0.000	1.363
	Two times	0.682	0.002	1.491	0.441	0.000	1.226
	More than three times	1.124	0.000	1.784	1.765	0.000	1.916
Organizational form [Spontaneously organized by students]	Organized by universities	0.258	0.004	1.152	0.297	0.000	1.198
Activity evaluation [Negative]	Positive	1.763	0.000	1.985	1.882	0.000	2.036

From the perspective of household registration type, the regression coefficients of rural household registration in the two options of “preference” and “very willing” are -1.158 and -0.979, and P values are both less than 0.05, OR values are 0.219 and 0.315 respectively which are both less than 1, indicating that the participating willingness of rural household registration students is weaker than that of urban household registration students.

The coefficients of non-only children in the two options are 0.368 and 0.147 respectively, P value is both less than 0.05, OR value is both greater than 1, which indicates that non-only children have stronger willingness to participate.

From the participation situation, the P value is less than 0.05, indicating that the previous participation times have a significant impact on the willingness to participate, among which students who have participated more than three times have the strongest willingness to participate.

From the organizational form, the P value is still less than 0.05, indicating that the organizational form of community volunteer service has a great impact on students' willingness to participate. From the OR value, it can be seen that students who have participated in community volunteer service organized by schools have stronger willingness to participate.

From the perspective of activity evaluation, P values are close to 0, and whether the evaluation is positive or not has a significant positive impact on students' willingness to participate in community volunteer activities.

#### **4. Research Conclusions and Suggestions**

Based on the above research, the following conclusions can be drawn:

(1) Male students are more willing to participate in community volunteer service than female students. The reason may be that boys generally have better physical fitness and more stable physical condition than girls, so they participate in such activities more actively. (2) Students with urban household registration have stronger willingness to participate in community volunteer service, possibly because students with urban household registration are more familiar with the environment of urban community. (3) The frequency of participating in community volunteer service activities has a strong positive impact on the willingness to participate in community volunteer service. (4) The willingness to participate in voluntary community activities of students who more participate in volunteer community activities spontaneously organized by students is lower than that of students who participate in voluntary community activities organized by schools. The reason may be that the activities spontaneously organized by students are not standardized in management and the implementation of incentives is not in place. (5) There is a significant positive correlation between students' evaluation of community volunteer service and their willingness to participate in community volunteer service.

In response to this situation, university managers can formulate incentives for community volunteer service, standardize incentive mechanisms, and attach particular importance to spiritual recognition, so that students participating in community volunteer service can get effective spiritual satisfaction. At the same time, strengthening the publicity work of community volunteer service and enhancing the positive evaluation of these activities by the student groups can effectively strengthen the willingness of college students to participate in them.

#### **References**

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