

Analysis on the Influencing Factors of Citizens' Response and Diffusion to Public Policy—Taking the “Universal Two-Child” Policy as an Example

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ABSTRACT

To analyze the social effect of public policy by analyzing citizens' responses to public policy and the influencing factors among citizens. The random multi-category logistic model was used to analyze the response of Tianjin residents to the "two-child" policy and the relationship between the influencing factors. There were significant differences in the influencing factors of household registration, family economy, education level, nursing expenses and work pressure on the policy effect. The direct social effect of the "two-child" policy is to optimize the population structure in China to a certain extent, but it will not bring about the excessive expansion of China's population. The indirect effect of the policy is to stimulate economic growth and promote social harmony.

Keywords: Policy effect, policy diffusion, citizen response, the universal two-child policy

1. INTRODUCTION

Common policy is the decision or action taken by the government to solve or improve public problems. It is not only directly related to all aspects of social life, but also closely related to public interests. Therefore, the citizen response of public policy and the spread determine the ultimate realization of policy objectives.[1] Any public policy has the problem of "policy spread" from its creation to the realization of its policy goals. The so-called "policy spread" refers to the process that a policy is generally adopted by policy makers and social members in other regions. In fact, policy spread is a social change. When a new policy comes into being, it will be spread, adopted or rejected, and produce certain effects." [2] The purpose of policy spread is to pursue the effect of policy. Past research on policy spread has paid more attention to the spatial transfer of policy among decision-makers, while the research on the spread of policy among social members and citizens' response is relatively weak, and the ultimate audience of policy is the majority of social members, and the policy effect is also reflected in the response of social members.[3] The "citizen response" of public policy refers to the attitude of citizens towards a public policy, that is, acceptance, rejection or hesitation. At the same time, citizen response also reflects the degree of spread of the policy among members of society. Therefore, we take the "two-child" policy as an example, and analyse the social effects of public policies by analysing the citizen response and the influencing factors among citizens.

2. MODEL AND DATA

2.1. Model Setting

In order to examine the influencing factors of the response and spread of public policy, this paper takes the "two-child" policy as an example to investigate and test whether the "two-child" policy spreads among social members or whether the response of social members to the "two-child" policy is affected by the social members' policy cognition, nursing expenses, work pressure, family income, education level, etc. We used a self-designed questionnaire to obtain data, and chose the disordered multi-category logistic model, and analysed the relationship between the response and spread of the "two-child" policy and its influencing factors.

2.2. Variable Description

We set the response of social members (citizens) to the "two-child" policy as a dependent variable. Among them, those who are not willing to have a second child are referred to as refusal; those who are between refusal and adoption are referred to as hesitation; those who are willing to have two children are referred to as adoption, with rejection = 1; hesitation = 2; adoption = 3; X is the influencing factor of social members (citizens) response to the "two-child" policy. Set it as an explanatory variable,

mainly including: gender (male=0, female=1); age (20-25 years old=1, 26-35 years old=2, 36-45 years old=3); household registration (rural=0, Urban=1); monthly household income per capita. 4000 yuan and below = 0,4001 yuan and above = 1); education level (high school and below = 1, college = 2, undergraduate = 3, graduate and above = 4); Nursing expenses (very high=1, relatively high=2, slightly high=3, not high=4); work pressure (very high=1, relatively large=2, slightly large=3, not large=4);awareness of the two-child policy (very clear=1, relatively clear=2, slightly understanding = 3, not knowing = 4), See Table 1.

Table 1. Statistical description of variables

Variable	Group	Sample number /case	Proportion (%)
Gender	Male =0	258	53.6
	Female =1	209	46.4
Age	20-25 years old =1	152	34.4
	26-35 years old =2	191	42.1
	36-45 years old =3	124	23.5
Household registration (residence)	Rural =0	139	36.4
	Urban =1	328	63.6
Household monthly income per capita	4000 yuan and below =0	352	68.5
	4001 yuan and above =1	115	31.5
Education	Senior high school and below =1	104	18.6
	Junior college =2	150	35.6
	Undergraduate =3	185	39.0
	Postgraduate and above =4	28	6.8

Table 1 shows that in a sample of 467 cases, 267 people responded to the “universal two-child” policy as acceptance, that is, 57.1% of people were willing to have a second child; at the same time, 138 people responded to the policy as rejection, that is, yes 29.6% of people are unwilling to have a second child; another 62 people hesitate to respond to the policy, that is, they are hovering between birth and no birth. This part of the population accounts for 13.3% of the total sample.

2.3. Data Source and Description

We used self-designed questionnaires and finalized the draft after many expert discussions and analyses based on reference to relevant literature. The content of the survey

included the awareness of the "two-child" policy by members of the society, self-perceived of upbringing expense and work pressure, family monthly income per capita, and demographic sociological characteristics, etc. The purpose was to influence the response of social members of the "universal two-child policy". From November 20, 2019 to December 10, 2019, a random sampling of residents in seven administrative districts, including Heping District, Hexi District, Hedong District, Nankai District, Hongqiao District, Beichen District, and Xiqing District, was conducted in Tianjin. A total of 500 questionnaires were issued, and invalid and rejected questionnaires were excluded. A total of 467 valid questionnaires were returned, with an effective rate of 93.40%. For the data obtained in the survey, use Epi Data3.1 software for data entry and sorting, and use SPSS19.0 to analyse the data. Use composition comparison to describe the basic information and social members’ responses to the “universal two-child” policy, and perform a chi-square test for the differences in the responses of social members of different characteristic groups to the “universal two-child” policy. P<0.05 means the difference is statistically significant It also uses the disordered multi-category Logistic regression method to analyze the influencing factors of social members’ response to the “universal two-child” policy.

3. POLICY RESPONSE AND ANALYSIS OF FACTORS AFFECTING DIFFUSION

The social members’ residence, family economy, education level, self-perceived upbringing expenses, and self-perceived work pressure in the pre-defined questions have a significant impact on the policy responses of social members. In Table 2, there are two sets of logistic regression results. The first group is the regression results of refusing to adopt the "universal two-child" policy (clearly expressing that they are not willing to have two children); the second group is hesitant to the "universal two-child" policy (Not necessarily having a second child) return result. The “universal two-child” policy is adopted as the reference category in the dependent variable, so all its regression coefficients are “0”. Urban household registration and household per capita monthly income of 4,000 yuan or more are used as the reference categories of the corresponding independent variables, and the regression coefficients are also "0". Compared with the urban household registration, there are significant differences in the two groups of refusal to adopt and indecision, with P values of 0.000 and 0.041 respectively; Compared with the family’s per capita monthly income of 4000 yuan and below and 4000 yuan or more, there is a significant difference in the above two groups, and the P values are 0.000 and 0.000 respectively; There are significant differences in the educational level of individual members of society in the two groups of rejection and hesitation, and the P values are 0.006 and 0.000 respectively; The expense of self-induction and

upbringing of social members is also significantly different in the above two groups, with P values of 0.000 and 0.030 respectively; Social members' self-perceived work

pressure also has significant differences in the above two groups, with P values of 0.044 and 0.000 respectively.

Table 2. Multi-class Logistic Regression Analysis of Public Policy Citizens' Response Influencing Factors

	Variable	B	Wald	P	Exp(B)	95%CI
Rejection(Adopted as the reference group)	Rural household registration	-3.463	35.527	0.000	0.031	0.010~0.098
	Urban household registration (reference group)	0 ^b				
	Family monthly income per capita is 4000 yuan and below	3.375	29.395	0.000	29.239	8.630~99.061
	Above 4000 yuan (reference group)	0 ^b				
	Education level (covariate)	9.636	7.524	0.006	1.888	1.199~2.974
	Self-induced care expenses (covariate)	-1.205	71.055	0.000	0.300	0.226~0.397
	Self-induced work pressure (covariate)	-0.458	4.065	0.044	0.632	0.405~0.987
Hesitation(Adopted as the reference group)	Rural household registration	0.806	4.156	0.041	2.239	1.032~4.858
	(Cities and towns are the reference group)	0 ^b				
	Family monthly income per capita is 4000 yuan and below	2.602	23.251	0.000	13.486	4.684~38.827
	(4001 yuan and above is the reference group)	0 ^b				
	Education level (covariate)	1.771	36.770	0.000	5.877	3.315~10.417
	Self-induced care expenses (covariate)	-0.316	4.700	0.030	0.729	0.548~0.970
	Self-induced work pressure (covariate)	-2.211	64.186	0.000	0.110	0.064~0.188

3.1. Different Responses of Urban and Rural Social Members to the “Two-Child” Policy

From the results of the model, first of all, in the rejection and adoption group in Table 2, the B value of rural household registration is -3.463. Compared with urban residents, rural residents choose to adopt the “two-child” policy, that is, there is more rural residents are willing to have a "second child"; The Exp(B) value of the rural household registration is 0.031, that is, the number of rural residents who refuse the "two-child" policy is 0.031 times that of urban residents. Secondly, the hesitation and adoption group in Table 2 shows that the B value of rural household registration is 0.806, which means that more rural residents than urban residents are hesitant to the “two-child” policy. The Exp(B) value is 2.239, that is, the number of rural residents who are hesitant to the "two-child" birth policy is 2.239 times that of urban residents. The two sets of data in Table 3 show that compared with urban members, rural members of society respond to the “two-child” policy by willing to adopt or hesitate, while fewer members of rural society reject the policy.

"Different regions and the specific cultural factors contained therein may also be important reasons that affect the willingness and choice of children of childbearing age." [4] In our country, there are big differences between rural and urban traditional customs and lifestyles. More members of rural society are affected by traditional customs and are willing to have more children. Therefore, compared with urban members, more members of rural society the response to the "comprehensive two-child" birth policy is adoption. The model test results are in full agreement with the actual situation we investigated.

3.2. Different Responses of Social Members with Different Economic Status to the “Two-Child” Policy

From the results of the model, first of all, in the rejection and adoption group of Table 2, the B value of the family's per capita monthly income of 4000 yuan and below is 3.375, which indicates that the per capita monthly income of the family is 4000 yuan or less, and the per capita monthly income of social members and families More than

4,000 yuan of social members have chosen to reject the "universal two-child" policy, that is, more low-income members of society are unwilling to have a "second child"; The value of $\text{Exp}(B)$ is 29.239, that is, the number of social members whose family per capita monthly income is 4,000 yuan or less rejects the "universal two-child" policy is 29.239 times that of social members with a family per capita monthly income of 4,000 yuan or more. Secondly, the hesitation and adoption group in Table 2 shows that the B value of a family's per capita monthly income of 4000 yuan and below is 2.602, that is, the per capita monthly income of a family of 4,000 yuan or less is the same as that of social members with a family's per capita monthly income of 4,000 yuan or more. More than more people are hesitant about the "universal two-child" policy. The value of $\text{Exp}(B)$ the family's per capita monthly income of 4,000 yuan and below is 13.486, that is, the per capita monthly income of the family is 4,000 yuan and below. "The number of people who are hesitant about the childbirth policy is 13.486 times that of members of society with a family monthly income of more than 4,000 yuan. From the two sets of data in Table 2, compared with social members with a per capita monthly income of 4,000 yuan or less, compared with social members with a per capita monthly income of 4,000 yuan or more, their response to the "universal two-child" policy is to reject or hesitate to adopt The proportion of members of society in this policy is relatively small. Judging from the actual situation of the survey, members of society with better family economic conditions tend to adopt the policy. The model test results are in full agreement with the actual survey.

3.3. Different Responses of Social Members with Different Educational Levels to the "Two-Child" Policy

From the results of the model, first of all, in the rejection and adoption group of Table 2, it is shown that the education level of social members is taken as a covariate, and its B value is 9.636. Because in our research design, the education level is from high school and below to graduate students and above are set to 1 to 4 in order. Therefore, this set of data shows that as the level of education increases, more members of society choose to adopt the "two-child" policy. In other words, the higher the education level of the society the more members chose to adopt the "two-child" policy. Secondly, in the hesitation and rejection group in Table 2, the education level of social members is also a covariate, and its B value is 1.771, which also shows that as the education level of social members increases, more people choose to adopt "two-child" policy. According to the actual situation of the survey, as the education level of social members increases, their working conditions and environment and income will be correspondingly better and higher, and their family economic status will also improve correspondingly with the increase in education level. The ability to pay for

upbringing expenses and the ability to cope with work has also been enhanced accordingly. Therefore, as members of society have higher education levels, more people have a positive attitude towards the "comprehensive two-child" policy. The model test results are in full agreement with the actual situation.

3.4. Different Responses of Social Members with Different Self-Perceived upbringing Expenses to the "Two-Child" Policy

Self-perceived upbringing expenses are how members of society feel about the energy, stamina, and economic costs of raising the next generation. From the results of the model (Table 2), the expense of the self-perceived upbringing of social members has a significant impact on their policy responses in both sets of data. First of all, in the rejection and adoption group, the self-perceived upbringing expenses of social members are used as a covariate, and its B value is -1.206. This shows that with the increase in the self-perceived upbringing expenses of social members, there is more change between rejection and acceptance. Many people have chosen to reject the "two-child" policy. Secondly, in the group of hesitation and adoption, the self-perceived upbringing expenses of social members are also covariates, and its B value is -0.316, which also shows that as the self-perceived upbringing expenses of social members increase, between hesitation and adoption, there are more people are hesitant to respond to this policy. These two sets of data show that as members of society feel that the expense of upbringing has increased, more people have rejected the policy. The actual situation of the investigation is also that as members of the society feel that the expense of upbringing has increased, more people have rejected the policy. The model test result is in full agreement with the actual survey

3.5. Different Responses of Social Members with Different Self-Perceived Work Pressure to the "Two-Child" Policy

Social members' self-perceived work pressure is the self-feeling of social members to work pressure. Due to the difference between subjective and objective conditions, different social members will have different feelings of pressure on the same job.

From the results of the model (Table 2), the self-perceived work pressure of social members also has a significant impact on their policy responses in both sets of data. First of all, in the rejection and acceptance group, the self-perceived work pressure of social members is used as a covariate, and its B value is -0.458, which shows that as the self-perceived work pressure of social members increases, there is a greater difference between rejection and adoption. Many people have chosen to reject the "two-child" policy. Secondly, in the hesitation and adoption group, the self-perceived work pressure of social members

is also a covariate, with a B value of -2.211, which also indicates that as the self-perceived work pressure of social members increases, there is More people are hesitant to respond to this policy. These two sets of data show that as members of society feel that their work pressure increases, the more people reject the policy.

From the survey results (Table 3), as members of society feel that their work pressure increases, the more people reject the policy. The model test result is in full agreement with the actual survey.

Table 3. Comparison of residents' willingness to bear children with different characteristics

Variable	Group	Refuse to have children		Uncertain		Accept childbirth		X2 value	P value
		Number of cases %	Number of cases %	Number of cases %	Number of cases %				
Gender	Male	84	60.9	36	58.1	138	51.7	2.199	0.333
	Female	54	39.1	26	41.9	129	48.3		
Age	20-25 years old	38	27.5	14	22.6	100	37.5	9.336	0.053
	26-35 years old	50	36.2	26	41.9	115	43.1		
	36-45 years old	50	36.2	22	35.5	52	19.5		
household register	Rural	6	4.3	18	12.9	115	43.1	32.069	0.000
	Urban	132	95.7	44	29.0	152	56.9		
Household monthly income per capita	4000 yuan and below	134	97.1	60	96.8	158	59.2	43.569	0.000
	Above 4001 yuan	4	2.9	2	3.2	109	40.8		
Education	High school and below	52	37.7	10	16.1	42	15.7	27.319	0.000
	Junior college	50	36.2	40	64.5	95	35.6		
	Undergraduate	30	21.7	12	19.4	108	40.4		
	Graduate student and above	6	4.3	0	0.0	22	8.2		
Self-induction costs	Very high	42	20.4	18	29.0	70	26.2	63.460	0.000
	Relatively high	74	53.6	8	12.9	36	13.5		
	Slightly high	18	13.0	4	6.5	26	9.7		
	Not high	4	2.9	32	51.6	135	50.6		
Self-conscious work pressure	Very large	23	16.7	4	6.5	14	5.2	115.495	0.000
	Relatively large	84	60.9	10	16.1	18	6.7		
	Slightly large	31	22.5	46	74.2	130	48.7		
	Not large	0	0.0	2	3.2	105	39.3		
Awareness of the second-child policy	Very clear	11	8.0	8	12.9	28	10.5	7.939	0.243
	Relatively clear	14	10.1	12	19.4	59	22.1		
	Slightly clear	71	51.4	32	51.6	126	47.2		
	Not clear	42	30.5	10	16.1	54	20.2		

4. DISCUSSION

Any public policy will cause a certain social effect. Because the social effect of the policy is closely related to the response of social members to the policy and the degree of policy spread among citizens, there may be a difference between the initial goal and the final effect of the policy. The degree of adoption of the policy by social members indicates the degree of spread of the policy among social members. This paper analyses the social effects of the "two-child" policy. The "two-child" policy is a public policy to balance the current population and resources and environment in the long term.[5] The

purpose is to promote the long-term balanced development of our population under the premise of a moderate birth rate, and then promote the transformation of China from a country with a large population to a powerful country with human capital.[6] Whether the "two-child" policy can achieve the expected goal, we analyse the social effect of the "two-child" policy from both direct and indirect perspectives.

4.1. The Direct Effect of the "Two-Child" Policy: Demographic Effect

The implementation of the "two-child" policy will increase the total number of births in China in the next few years.

This is the expected effect of the policy adjustment and is also the direct effect of the policy. However, whether this kind of population growth will bring about population expansion again is concerned by society. According to our survey (see Table 1), only 57.1% of the respondents responded positively (willing to have a second child) to the policy; 29.6% of the respondents took a negative response (unwilling to have a second child); in addition, some members of the society took a hesitant (not necessarily) attitude, and these social members accounted for 13.3% of the survey respondents. According to the survey results, the "two-child" policy will not lead to population expansion again.

4.2. The Indirect Effect of the "Two-Child" Policy: Economic and Social Effects

First of all, the "two-child" policy will stimulate economic growth in corresponding fields in the short term. Compared with traditional family planning, after the two-child policy, the number of newborns will increase. Therefore, the demand for maternal and child health care and infant care services will also increase, which will stimulate the corresponding consumption of social members; in addition, with the increase of birth population, the corresponding demand for public services will also increase, which will promote the government to increase investment in public services. Secondly, the "two-child" policy meets the wishes of some members of society to have "two-child", which improves their sense of satisfaction and happiness index. It not only promotes the harmonious development of society but also optimizes the population structure of our country.

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