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Factors influencing rural households' willingness of centralized residence

—Comparing pure and nonpure farming areas in China

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Research background



Hollow village



**Villages are
randomly scattered**



**The exploration
of Centralized
residence**



Centralized residence

- ◆ **Centralized residence, an important form of urbanization, places scattered households in new communities equipped with the relevant facilities that provide holistic changes in production, lifestyle, ways of life, and social welfare .**



Argument



VS



Approvers believe it enhances the efficiency of land resource utilization, improves rural population's living environments, and accelerates the progress of urban-rural integration. It's considered an effective means of land provision for industrialization, while not affecting grain safety.

Opponents maintain that flattening villages that have existed for thousands of years is a waste of resources and will break the organizational structure of the rural society and damage their existing social networks.



Orientation of the study areas



VS



Data sources



Data for this study was obtained from surveys of rural households in Jiangshan City and Panshan County. 220 questionnaires were distributed to Jiangshan City and Panshan County respectively. A total of 186 valid questionnaires were collected with the recovery rate of 84.5% in Jiangshan City, while 201 were recovered with the recovery rate of 91.3% in Panshan County.



Selection of variables

Selection of dependent variables

The dependent variable of this study is the desire of rural households in both locations for centralized residence. Scores of “1, 2, 3, 4, and 5” corresponded to “unwilling,” “a bit unwilling,” “willing,” “relatively willing,” and “extremely willing.”



Selection of independent variables

Influencing Factors	Variables	Variable Assignment
Rural Households' Characteristics	Gender	Male=1, female=0
	Age(years)	20-30 years old = 1,31-40 years old = 2,41-50 years old = 3,51-60 years old = 4,61 years old and above = 5
	Education Degree	Uneducated=1, primary school=2, middle school=3, senior high=4, college and above=5
	Total Family Population	1-3 persons = 1,4-5 persons = 2,6 persons and above = 3
Family Economy	Non-agricultural Income(RMB)	less than 5000 RMB = 1,5000-20000 RMB = 2,2 0000-50000 RMB = 3, 50000-100000 RMB = 4,100000 RMB and above = 5
	Arable Area(mu)	0-2 mu =1, 2.1-4 mu =2, 4.1-6 mu =3, 6.1-10 mu =4, 10 mu and above =5
	Arable Operation Means	Self-farming=1, mixed=2, lease=3, 4=land abandonment
Policy Perception	Policy Familiarity	Never heard of it=1, heard some=2, extremely familiar=3
	Policy Benefit Expectation	No knowledge of good or bad=1, No benefit at all=2, a bit beneficial=3, beneficial for the entire family=4
	Trust in Village Collective	Distrustful=1, a bit distrustful=2, fair=3, relatively trustful =4, extremely trustful=5
Housing Characteristics	Total Residential Land Area(m ²)	0-50 m ² = 1,51-100 m ² = 2,101-200 m ² = 3,201-300 m ² = 4,301 m ² and above = 5
	Satisfaction with Living Conditions	Unsatisfied=1, a bit unsatisfied=2, relatively satisfied=3, satisfied=4, extremely satisfied=5
	Satisfaction with Infrastructure	Unsatisfied=1, a bit unsatisfied=2, relatively satisfied=3, satisfied=4, extremely satisfied=5
Social Environment	Superstition Degree	Skeptical=1, a bit trustful=2, so so=3, relatively trustful=4, extremely trustful=5
	Neighborhood Relationship (weekly contacts times)	1-4 times = 1, 5-8 times = 2, 9-12 times = 3,13-16 times = 4,17 times or more = 5
	Environmental Safety	Unsafe=1, a bit unsafe=2, fairly safe=3, relatively safe=4, extremely safe=5

Descriptive statistics of variables in Jiangshan city and Panshan county

Influencing Factors	Variables	Jiangshan City				Panshan County			
		Minimum	Maximum	Mean	Standard Deviation	Minimum	Maximum	Mean	Standard Deviation
Household Characteristics	Gender	0	1	0.54	0.499	0	1	0.91	0.293
	Age	1	5	3.34	1.075	1	5	3.09	0.95
	Education Degree	1	4	2.14	0.714	1	5	2.23	0.545
	Family Population	1	5	2.94	0.871	1	5	3.11	1.396
Family Economy	Non-agricultural Income	1	5	3.26	1.167	1	5	2.52	0.911
	Arable Area	1	3	1.99	0.768	1	5	3.08	1.374
	Arable Operation Means	1	4	2.13	0.95	1	3	1.46	0.548
Housing Characteristics	Total Residential Land Area	1	5	3.08	1.45	2	3	2.85	0.362
	Satisfaction with Living Conditions	1	5	2.9	0.867	1	4	2.47	1.086
	Satisfaction with Infrastructure	1	5	3.87	1.185	1	4	2.65	1.14
Policy Perception	Policy Familiarity	1	3	2.26	0.607	1	3	2.01	0.794
	Policy Benefit Expectation	1	4	2.46	1.167	1	5	2.54	1
	Trust in Village Collective	1	5	4.12	1.017	1	4	3.81	0.466
Social Environment	Superstition Degree	1	5	2.32	1.071	1	4	1.38	0.753
	Neighborhood Relationship	1	5	2.3	1.206	1	4	1.33	0.634
	Environmental Safety	1	5	3.96	0.903	2	5	3.82	0.459

Models selection

This study selected three models:

- ◆ binary logistic regression analysis model.
- ◆ logistic stepwise regression model .
- ◆ polynary-ordered logistic model .



Results

	Jiangshan City			Panshan County		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Gender	0.843		-0.214	1.410		-0.065
Age	0.637		-0.167	1.150		0.101
Education Degree	0.553		-0.443	0.992		-0.329
Total Family Population	0.788		-0.216	1.047		0.066
Non-agricultural Income	1.433*		0.367***	1.824***	0.554***	0.405**
Arable Area	0.300***	-1.024***	-0.578***	1.214		0.142
Arable Operation Means	1.067		-0.090	2.121*	0.801**	0.792***
Total Residential Land Area	1.051		0.006	0.339*		-0.448
Satisfaction with Living Conditions	1.421		0.320*	1.124		0.175
Satisfaction with Infrastructure	1.539**		0.363**	0.726*		-0.165
Policy Familiarity	1.289		0.163	1.138		0.284*
Policy Benefit Expectation	0.843		-0.070	2.944***	1.059***	0.613***
Trust in Village Collective	2.497***	0.829***	0.920***	1.129		0.053
Superstition Degree	1.398		0.229	1.301		0.075
Neighborhood Relationship	1.303		0.191	1.195		0.137
Environmental Safety	0.656*		-0.015	3.421***	1.003**	0.639**
	0.479	-0.406		0.000	-8.485	
Log likelihood	-80.724	-46.196	-213.884	-89.617	-95.762	-279.756
Pseudo R2	0.305	0.215	0.158	0.336	0.291	0.130
			Brant Test (p=0.167)			Brant Test (p=0.943)

Note: *p<0.10, **p<0.05, ***p<0.01.

Results

Based on survey results, the willingness of rural households in the nonpure farming area (Jiangshan City) was slightly greater than that of the pure farming area (Panshan County).





Jiangshan City

The most significant factor over rural households' centralized residence is trust in the village collective, which positively correlates with rural households' willingness.

The second most important factor is the arable area that negatively correlates with rural households' willingness of centralized residence.

The third factor is satisfaction with infrastructure that exerts positive influences over rural households' desire for centralized residence, which is the opposite of the expected hypothesis.

The fourth factor is non-agricultural income which positively correlates with rural households' willingness.



Panshan County

The most significant factor regarding rural households' willingness to accept centralized residence was the policy benefit expectation, which positively correlated with it.

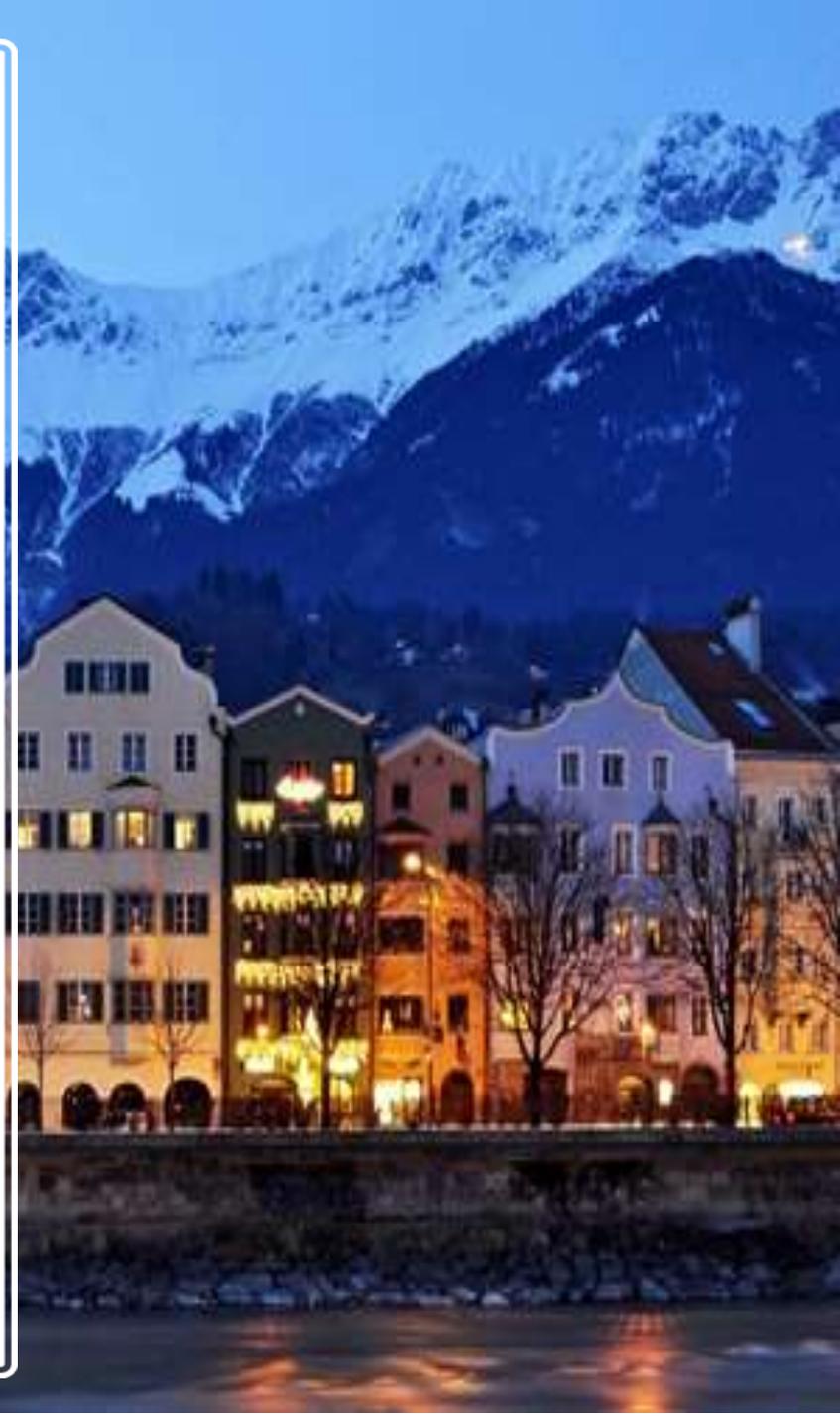
The second factor is environmental safety, which impacts rural households' desire for centralized residence in a positive way.

The third factor is non-agricultural income, which has a positive effect on rural households' willingness of centralized residence.

In addition to the above important factors, arable operation means and total residential land area also affect households' willingness of centralized residence.

Results

By comparison, rural households in the nonpure farming area valued fairness and expectations of future quality of life, while those in the pure farming area valued implementation and compensation guarantees.



Discussion and conclusions

1. The dual driving forces for centralized residence



- ◆ **Self-driven forces**——increase in rural households' income, changes in family structure, rural aging, and educational enhancement result in higher requirements for living conditions. Original houses are old, with unsound infrastructure and public facilities, motivating them to build new houses or move to new communities with better conditions.
- ◆ **Government-driven forces**——urbanization and industrialization cause constantly increasing pressure for urban construction land. Limited by the policy regarding the balance between construction land and arable land, the increase in urban construction land depends on the decrease in available rural construction land.



2.The causes for regional differences of the willingness of rural households



- ◆ In general, the desire of rural households in the area of higher economic development is stronger, because of three aspects.
 - First, the production means is fast in the developed area, and rural households depend less on agricultural income.
 - Second, the income level is higher in the developed area, and rural households have a greater ability to shoulder rising living costs after centralized residence.
 - Third, the government in the developed area provides more policy support for centralized residence and satisfies diverse demands of rural households.

3. The balance between expected returns and potential risks

- ◆ The greater the expected benefits and the smaller the potential risks, the more willing residents are to accept centralized residence.
- ◆ The benefits may include:
 - (1) improving living conditions;
 - (2) changes in family resource endowment;
 - (3) Traffic conditions and public facilities will be improved.
- ◆ Possible risks faced include:
 - (1) unable to receive equal public services and social security with urban residents;
 - (2) greatly destroy the existing social network and gradually affect contacts and frequency;
 - (3) increases farming costs.



4. Suggestions for China's centralized residence policy



- ◆ For nonpure farming areas, local governments should focus on fairness in formulation and implementation of the policy, particularly procedure, distribution, and compensation, and make policies more transparent, to make rural households experience it.
- ◆ For pure farming areas, local governments should emphasize and guarantee actual benefits obtained from centralized residence, implement diverse compensation measures, and ensure their living and income levels are not reduced.



Research prospects

Further studies on extending investigated households and different rural areas are needed to improve the applicability of research findings at national scales.



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