

Chapter 124

A Study on Farmers' Concentrated Living Under the Background of Urban-Rural Integration: A Case of Beiwujiayuan Community in Beijing

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Abstract This essay focuses on the issue of Farmers' Concentrated Living under the Background of Urban-rural Integration taking a case in Beiwujiayuan Community in Beijing. On the basis of questionnaire and field study, the impact of concentrated living on the daily life of farmers are first described, such as the changes in family income, daily expenditure, house structure and house areas. After that, the author analyzes the degree of satisfaction and relevant factors with a statistical interpretation. Using Logistics regression, it is found how and to what extent those influencing factors have an effect on the general degree of satisfaction. Along with the analysis of regression results, the author probes into relative problems on this issue. In the end, main conclusions drawing from this essay and some targeting policy suggestions are presented.

Keywords Farmers' concentrated living • Urban-rural Integration • Degree of satisfaction • Logistic regression

124.1 Introduction

Since China's reform and opening up, rapid development have taken in urban society and rural landscape has also undergone great changes. However, the gap between urban and rural development level has significantly increased. To eliminate the urban-rural dual structure and realize rural-urban coordinated development is a long and arduous strategic task. According to the 5-year plan for 2011–2015, promoting new rural construction and guiding the rural residential settlement is regarded as a main task of Urban and rural integration development.

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Under the Background of Urban-rural Integration, new rural construction across the country has made some progress. However, farmers' concentrated Living is brand new reform measure with little experience to follow. Therefore, there must be varieties of contradictions and conflicts in the implementation process. In the above context, a field research was conducted in Beiwujiayuan Community in Beijing and attention was paid on the status and problems of farmers' concentrated living.

124.2 Literature Review

Academia discussed the issue of farmers' concentrated living mainly from three levels: government, community and Individual. At the government level, some local governments forced farmers to leave their village and live in apartment driven by the interest of land appreciation [1]. Also it is common to find "formalism" and "face-saving projects" in concentrated living in which the appearance of community is attached more importance than quality and facilities [2]. Lack of public service facilities and poor property management are common problems at community level [3, 4]. Other literatures discuss problems of social security and cultural adaption after concentrated living from individual level [5–7].

124.3 Methodology and Data

In order to obtain first-hand information, 80 questionnaires were sent and structured interview were conducted in May, 2011. After that, overall satisfaction of concentrated living was described and logistic regression model was employed based on field research data.

In a total of 80 questionnaires sent out, 80 effective copies were retrieved and the effective rate of retrieve was 100 %. The questionnaire includes issues as follows: (1) Individual and family characteristic and their viewpoint of the importance of land; (2) Total family income changes, daily household expenditure changes, structure and floor area of settlements changes after concentrated living; (3) Satisfaction of relocation compensation and governments work; (4) Satisfaction of new community from different aspect and on the whole. The individual and family characteristics of respondents are described in Table 124.1.

Table 124.1 Individual and family characteristics

Ages			Gender		
≤40 years	41–59 years	≥60 years	Male	Female	
16.3 %	37.5 %	46.3 %	45.0 %	55.0 %	
Education level			Family scale		
Primary	Junior high school	High school and above	1–2 members	3–4 members	≥5 members
53.8 %	30.0 %	16.3 %	23.8 %	43.8 %	32.5 %

124.4 Concentrated Living in Beiwujiayuan Community

124.4.1 General View of Beiwujiayuan Community

Beiwujiayuan Community is located in urban and rural copula between the fourth ring and the fifth ring of Beijing, which is an administrative part of Yuquan Area, Sijiqing town, Haidian District. Beiwujiayuan Community is a pilot project of farmers' concentrated living for people in Beiwu Village. There were 1,550 families, 2,967 farmers and 663 non-farmers living in Beiwu Village before Concentrated living Project. At the meantime, more than 25,000 of migrant workers living in Beiwu Village by renting houses here.

According to Urban Master Planning 1993 of Beijing, Beiwu Village is planned as green belt separation so that 251 ha rural land have been requisitioned by government. With no land to be planted, villagers had to earn income from renting house to migrant workers, which is called "Tile Economy".

124.4.2 Life Changes of Farmers After Concentrated Living

124.4.2.1 Family Income

Family income is not only the economic foundation of a family, but also reflects the key indicators of household living conditions. The influence of concentrated living can be largely reflected by the changes of family income.

According to the results of questionnaires, families that experienced income reduction account for the 47.5 % of 80 samples followed by no changes in income and households that earn more than before only account for 20 %. Before concentrated living, there were hardly any villagers farming in Beiwu Village since all of private plots have been requisitioned in the name of Green Belt Separation Project. As mentioned above, majorities of villagers made a living by renting houses and they could separate their spatial houses into several small cabins, from which they could get more rent. However, they could not rent houses as before since there are only three housing unit: 50, 80 and 90 m² so that there would be no flexibility in separating department any more. As a result, income of majorities of households has been declined seriously.

124.4.2.2 Daily Expenditure

Daily expenditure of a household reflects the cost of living, which is closely related to living conditions. In accordance with questionnaire results, more than half of households find that they expend more on daily consumption than before. The biggest changes, as the interview suggests, is reflected in the water charge.

Table 124.2 Changes in family income and daily expenditure

	Increased (%)	Declined (%)	No changes (%)	Others (%)
Changes in family income	20.0	47.5	32.5	0.0
Changes in daily expenditure	53.8	6.3	38.8	1.3

Table 124.3 Changes in architectural construction and living area

Concentrated living	Living in reinforced-concrete structured houses (household)	The average level of living area (m ²)
Before	38	199.7
After	80	183.2

With water supplied from well, villagers were charged only 60–70 Yuan per year for water consumption before concentrated living. After living in apartment, wells are taken over by a running-water company and villagers are charged more than 40 Yuan per month. In addition, every household have to pay for property management fees as they live in a community managed by a property company (Table 124.2).

124.4.2.3 Architectural Construction and Living Area

About 50 % households lived in brick-structure houses before concentrated living and all of the villagers live in reinforced concrete-structure building now, which means their living condition improves to some extent. As for living area, the average level declines. Some villagers built a second-floor house for more rents before concentrated living, which was regarded as illegal and not included in the replacement area. Also, many families live separately in several small apartments after concentrated living. They do not adapt to housing unit changes although living area are replaced by 1:1 in light of policy (Table 124.3).

124.5 Satisfaction Analysis and Empirical Results

124.5.1 Overall Satisfaction

According to questionnaire statistics, about 65 % of respondents are satisfied with concentrated living on the whole. However, the overall satisfaction is a comprehensive indicator. So it is necessary to analyze influencing factors from different aspects.

124.5.2 Modeling and Variable specification

Empirical method is used in this part in order to find out significant factors that influence overall satisfaction. A Logistic Regression Model is established as follows, in which the dependent variable stands for overall satisfaction: 1 means satisfied and 0 means unsatisfied.

$$\text{Prob}(Y_{ij} = 1) = \frac{e^{a + \sum \beta_{ij} X_{ij} + u_i}}{1 + e^{a + \sum \beta_{ij} X_{ij} + u_i}};$$

After logit transformation,

$$\text{Logit}[\text{Prob}(Y_{ij} = 1)];$$

$$\ln \left[\frac{\text{Prob}(Y_{ij} = 1)}{1 - \text{Prob}(Y_{ij} = 1)} \right] = a + \sum \beta_{ij} X_{ij} + u_i;$$

in which, $1 \leq i, j \leq 24$, $\text{Prob}(Y_{ij} = 1)$ is the probability of satisfaction; X_{ij} represent factors influencing overall satisfaction; β_{ij} are parameters to be estimated; u_i stands for error term.

Variables	Variable description	Expected influencing direction
age	Years	-
educ	Years of education	+
member	The number of family members	+
inc_up	inc_up = 1 if family income increases, inc_up = 0 in other cases.	+
inc_dwn	inc_down = 1 if family income decreases, inc_up = 0 in other cases.	-
exp_up	exp_up = 1 if daily expenditure increase, exp_up = 0 in other cases.	+
exp_dwn	exp_down=1 if daily expenditure decrease, exp_down = 0 in other cases.	-
area	Living area after concentrated living(m ²)	+
land	land = 1 if respondent think land is important, land = 0 if else.	-
move	move = 1 if respondent move voluntarily, move = 0 if he/she move reluctantly	+
cmpst	cmpst = 1 if respondent is satisfied with relocation compensation, cmpst = 0 if else.	+
gov	gov = 1 if respondent is satisfied with government's performance, gov = 0 if else.	+
quality	quality = 1 if respondent is satisfied with quality of new apartment, quality = 0 if else.	+
area_stsfy	area_stsfy = 1 if respondent is satisfied with living area of new community, area_stsfy = 0 if else.	+
strct	strct = 1 if respondent is satisfied with unit structure of new community, strct = 0 if else.	+

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Variables	Variable description	Expected influencing direction
beauty	beauty = 1 if respondent is satisfied with appearance of new community, beauty = 0 if else.	+
shop	shop = 1 if respondent is satisfied with shopping facilities around new community, shop = 0 if else.	+
trspt	trspt = 1 if respondent is satisfied with transport facilities around new community, trspt = 0 if else.	+
doctor	doctor = 1 if respondent is satisfied with medicare facilities around new community, doctor = 0 if else.	+
school	school = 1 if respondent is satisfied with school facilities around new community, school = 0 if else.	+
env	env = 1 if respondent is satisfied with environment of new community, env = 0 if else.	+
squ	squ = 1 if respondent is satisfied with square and greenland in new community, squ = 0 if else.	+
leisure	leisure = 1 if respondent is satisfied with sports and entertainment facilities in and around new community, leisure=0 if else.	+
neigh	neigh = 1 if respondent is satisfied with the relationship between neighbourhood in new community, neigh = 0 if else.	+

124.5.3 Empirical Results

At first, Pearson's correlation coefficients indicate that "age" and "education", "move" "cmpst" and "gov" are highly correlated. Six models are used in logistic regression in order to avoid multicollinearity.

Regression results are shown in Table 124.4. It is shown that goodness of fit of six models is desirable judging from 2Loglikelihood and Nagelkerke R^2 . The extent and direction of influencing factors are summarized as follows.

Firstly, the quality, unit structure and living area of new apartment have significant influence of the overall satisfaction. It is suggested that higher satisfaction of building's quality and room structure and larger living area contribute to higher satisfaction on the whole at 95 % significant level. But the evaluation of building appearance is not a significant factor while building appearance earns the highest evaluation according to questionnaire statistics. Therefore we can conclude that building appearance is less of concern than factors closely relating to living conditions. More than 80 % interviewees complain about the sound insulation of walls, which affects not only daily routines but also relationship between neighborhoods. In addition, elevator power outage and pipes leaking are also regarded as quality problems of new apartment. Many villagers consider room structure design unreasonable, such as living room is much smaller than bedroom

Table 12.4 Regression results

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age	0.887	—	0.077	—	0.054	—
Educ	—	0.191	—	0.179	—	0.037
Member	0.257	0.257	0.583	0.583	0.065	0.065
inc_up	2.834*	2.834*	1.783	1.783	2.779*	2.779*
inc_dwn	0.193	0.193	0.043	0.043	0.173	0.173
exp_up	0.391	0.391	0.445	0.445	2.664	2.664
exp_dwn	2.424	2.424	0.043	0.043	3.198*	3.198*
Area	2.016	2.016	0.009	0.009	1.032	1.032
Land	-2.267	-2.267	0.009	0.009	-2.527	-2.527
Move	—	—	5.132***	5.132***	—	—
cmpst	—	—	—	—	2.091***	2.091***
gov	3.759***	3.759***	—	—	—	—
Quality	2.597	2.597	2.536**	2.536**	2.908**	2.908**
Area_stsfy	0.083	0.083	0.327	0.327	0.035	0.035
strct	2.601***	2.601***	0.173	0.173	2.448**	2.448**
Beauty	1.713	1.713	0.254	0.254	0.106	0.106
Shop	0.389	0.389	1.717	1.717	0.111	0.111
trspt	0.008	0.008	0.681	0.681	0.233	0.233
Doctor	1.383	1.383	0.353	0.353	1.049	1.049
School	0.003	0.003	0.418	0.418	0.033	0.033
env	3.509***	3.509***	0.544	0.544	3.052**	3.052**
squ	0.14	0.14	0.333	0.333	0.218	0.218
Leisure	0.63	0.63	3.40	3.406	1.21	1.21
Neigh	2.466**	2.466**	3.692	3.692	4.574	4.574
-2Loglikelihood	42.402	42.402	37.289	37.289	32.906	32.906
Nagelkerke R ²	0.738	0.738	0.776	0.776	0.808	0.808

*, ** and *** represent for the confident level at 90 %, 95 % and 99 %, respectively

and it is too close to put sofa and TV at the same time in living room. In short, most basic conditions of new apartment contribute significantly to the overall satisfaction and “face-saving projects” seems to be a serious problem.

Secondly, environment in new community and relationship between new neighbors have significant impact on overall satisfaction at 95 % significant level and entertainment facility is another significant factor, which indicates that farmers pay more and more attention to interpersonal relationship and entertainment activities as living conditions improves. On the terms of neighbourhood, concentrated living is not only a process of spatial concentration but also social gathering process. Most villagers are glad that they can meet their old neighbors and friends in new community. Therefore it is a desirable pattern to allow villagers to live in original place which helps to maintain social ties between neighborhoods.

Thirdly, overall satisfaction is also significantly influenced by the attitudes toward land, moving voluntarily or reluctantly, degree of satisfaction towards compensation and government's performance. It is shown that the higher evaluation of land and reluctant moving contributes to lower satisfaction. About 60 % of respondents still attach great importance on land although all farm land has been requisitioned.

Relocation compensation is also one of significant factors at the significant level of 99 %. By contrast, the changes in family income and daily expenditure do not contribute significantly to overall satisfaction. It is inferred that the changes degree of income and expenditure seems rather smaller than the amount of relocation compensation up to millions Yuan in some cases.

Satisfaction of government's efforts in concentrated living is also important. It is thought that government's performance has detects of lack of openness and fairness. According to some respondents, some villagers, who have closely relationship with village committees, were distributed more compensation than others. This can be proved, based on the interview, by the fact that the criterion of compensation differs largely between households from 3,200 to 3,900 Yuan/m². In the aspect of openness, village committee never publicized compensation criterion or amount of compensation distributed to households. Worse still, relocation compensation was distributed as a package to villagers, who were rather confused with the detail and had no strong proof to argue with village committee.

124.6 Main Conclusions

Promoting farmers' concentrated living is the main direction of future rural development. Taking Beiwujiayuan Community as example, this paper mainly focuses on the problems of concentrated living. Important conclusions drawn by this research are summarized as follows.

1. In general, more than half of respondents are satisfied with concentrated living. However, the overall satisfaction is influenced by different factors and to different extent.
2. It is shown that the quality and room structure of new apartments are significant factors and contributes positively to overall satisfaction.
3. Relocation compensation and village committee's performance in the process of concentrated living process are rather important aspects, according to the results of Logistic regression.
4. It is also found that there are problems in this case study, such as poor building quality, improper structure design, lack of transparency in compensation distribution and so on.

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