

Spatial Discrepancy in the Structure of Housing and Household in Post-1988 Beijing

Yijia Wang, Jonathan D. Solomon

Faculty of Architecture, the University of Hong Kong, Hong Kong;

Abstract

Following its market-oriented economic reforms of 1978, the Chinese government launched housing reforms in 1988, aiming to promote the privatization and marketization of housing in China. However, as the reform deepened, the contradiction between housing supply and demand, and between housing price and household income became more conspicuous. Since 2005, the government has continuously announced the policies restricting housing prices and emphasizing the construction of welfare housing. Despite the government's attempts to match the structure of housing supply to the economic and demographic structure of society the result turns out to leave the lower end unsatisfied.

In this paper, we will map the spatial structure of housing and of households in Beijing in 2005, and then analyze the impact of housing policy on housing and household structure and explain why the government's action has failed to solve the problem it created in 1988. Finally we draw the conclusion that the spatial discrepancy between the structure of housing supply and social structure is a primary factor of the recent housing problem in Beijing.

Key words:

Spatial discrepancy, structure of housing supply, mapping, affordable house

Introduction

To relieve the shortage of housing in Beijing and reduce government investment in housing construction, China launched housing reforms in 1988. Conceived as a part of the country's market-oriented economic reforms underway for the past decade, the housing reforms initially provided privileges in land transaction, favorable tax conditions, and accelerated loan action aimed at promoting the privatization and marketization of housing in China(Wang, 1999). To speed up this trend, in 1998, the government abolished housing distribution by employers, increased government rents, and began selling public housing at cost price. As a result of these reforms, from 1990 to 2004 the percentage of commodity housing constructed per year to total housing construction in Beijing had risen from 44.2% to 90.6%(Wu, 1996). However, as the reform deepened, the contradiction between housing supply and demand, and between housing price and household income became more conspicuous. Data demonstrating the increase of average housing prices and per capita income indicates that the increase in housing prices is faster than the increase in income.

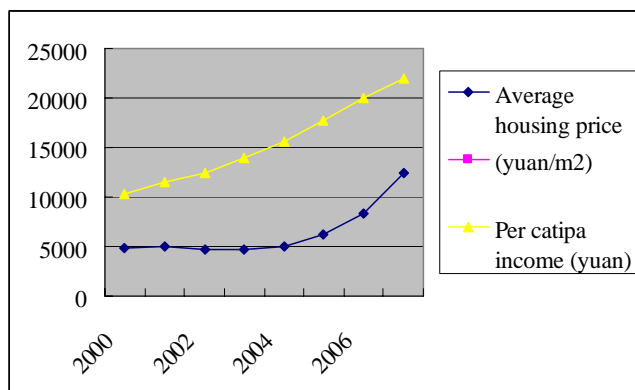


Fig 1. The increase in average housing prices and per capita income. Beijing Year Book 2000-2007

When the government stopped constructing public housing in 1998, it anticipated that in the future 70-80% residents would be capable of purchasing affordable (low cost) commodity housing. Higher-income households in urban area (the top 10-15%) would

be encouraged to obtain high standard commercial housing and poor families (the bottom 10%-15%) would be given subsidized rental housing (Wang, 2001). The proportion of affordable housing of the whole of housing construction completed in 2005 was only 2.6% (National Development and Reform Commission, 2006). Since 2005, the government has repeatedly announced policies restricting housing prices and flat size and emphasizing the construction of welfare housing. Despite the government's attempts to match the structure of housing supply to the economic and demographic structure of society the result turns out to leave the lower end unsatisfied. A number of factors support this conclusion, among them the fact that housing prices keep rising, and that 48% of the families who buy affordable housing rent it out (REICO, 2005).

This paper will analyze this problem from an urban planning perspective, and argue that although the structure of housing supply and social structure match globally in Beijing, locally, the discrepancy between them is escalating. Further, we will show that the spatial discrepancy between the structure of housing supply and social structure is a primary factor of the recent housing problem in Beijing. First we will review the residential differentiation process in post-socialist Beijing, secondly we will map the spatial structure of housing and of households in Beijing in 2005, when the government started to constrain the housing market. Finally, we analyze the impact of housing policy on housing and household structure and explain why the government's action has failed to solve the problem it created in 1988.

Beijing since housing reform

While Beijing is comprised of 18 districts, the urban area mainly covers eight: Xicheng, Dongcheng, Chongwen, Xuanwu, Chaoyang, Haidian, Fengtai, Shijingshan. The first

four, called the inner city, cover the site of Beijing's historic city. The later four, called the outskirts, have developed rapidly since 1949. Lo (1980) claims that in socialist China, control of neighborhoods was one method used to shape the city and organize society.



Fig 2. Beijing's eight urban districts

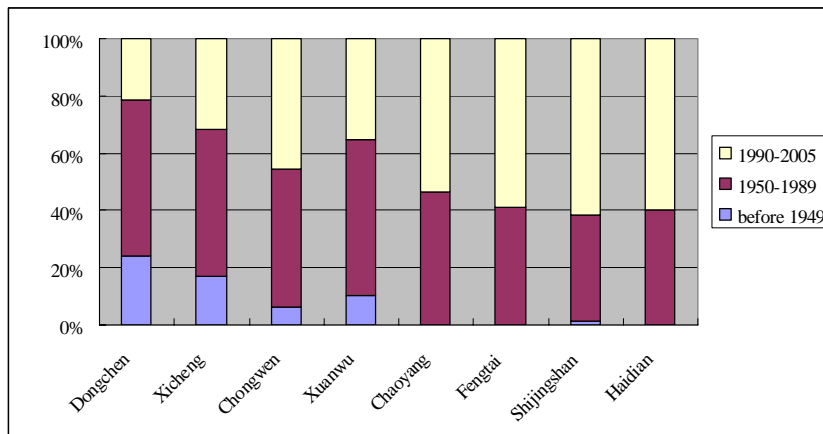
These neighborhoods in socialist Beijing,

so called work-unit compounds, were constructed and organized by work unit.

Work-units built the houses and rented them to the workers at a very low price, about 0.1 Yuan per square meter per month (Li, 2004, Wang, 2001, Wu, 2006). Youqin Huang (2006) describes the compounds as “...usually enclosed territories with surrounding walls...they provided not only housing but also public services such as clinics, schools. Grocery stores, and canteens exclusively for their own members. They were also guarded, some formally with security personnel in uniform standing next to gates monitoring every visitor, and others informally guarded with vigilant senior residents volunteering at the entrances.” While most work-unit compounds are located in the outskirts, in the inner city some traditional neighborhoods were destroyed to make way for them. In other older areas, existing housing was parceled and distributed among workers. Thus in socialist China was the city was formed and residents distributed in the city.

In 1988, a housing market was implanted into a socialist urban form, and gradually differentiated the existing structure. The outskirts developed faster, from 1990-2005 84.3% of the city's housing was constructed in this area. Because of the impact of socialist urban form, 58% of residents are still living in former public housing

Distributed during the socialist period.



*Fig 3. Construction time of housing in Beijing's eight districts
source: Beijing Statistics Bureau*

Spatial Discrepancy in the structure of housing and household

Previous housing research in China (Tianjing Social Science Research Center, 2005) indicates the strong relationship between generations in a family and the number of rooms in a flat. This paper will use the household and housing information in Beijing's 1% sampling census in 2005, and use the district as units to display and analyze the data. As the proportion of two-generation families in Beijing's eight districts are all around 50%, we chose data of one-generation and three-generation families to study family size in different districts. Figure 4 shows that the proportion of one-generation families in the inner city is smaller than that in the outskirts. The largest proportion of one-generation families is 43% in Chaoyang, which 12% higher than in Chongwen. Figure 5 shows that the proportion of large families is greater in the inner city than in the outskirts. Thus the analysis indicates that family size in the inner city is larger than in the outskirts. It shows that although the general trend of family size in Beijing is decreasing, from 3.7 people in 1980 to 2.9 in 2000, the trends in different districts are different.

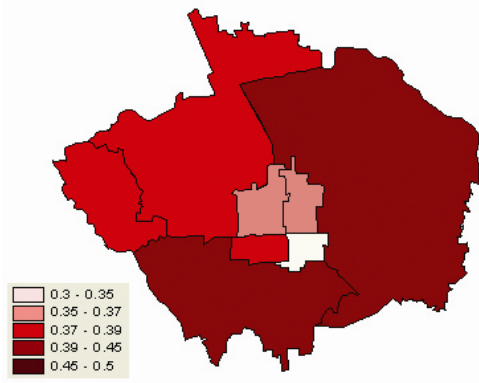


Fig 4. Proportion of one-generation family

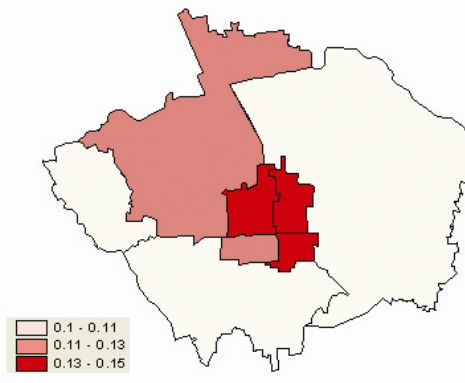


Fig 5. Proportion of three generation family

	One generation	Two generations	Three generations	Four generations	Total
Dongchen	1301	1842	548	2	3693
Xicheng	1844	2416	724	4	4988
Chongwen	751	1305	349	3	2408
Xuanwu	1505	1924	475	2	3906
Chaoyang	7368	7874	1787	15	17044
Fengtai	4125	5221	1084	10	10440
Shijingshan	1377	1909	387	3	3676
Haidian	5839	7382	1845	15	15081
Total	24110	29873	7199	54	61236

Table 1. Family size in eight districts

To compare with the data on family size, we choose data on one-room flats and flats with more than three rooms. Figures 6 and 7 show that the spatial distribution of housing is inconsistent with that of the household. The proportion of small flats in the inner city and Chaoyang and Shijingshan districts is larger than that of the other districts. When compared with the maps of household size, the large proportion of small flats in Chaoyang and Shijingshan are appropriate to the districts' household situation. But the discrepancy of housing and household in the inner city is more conspicuous.

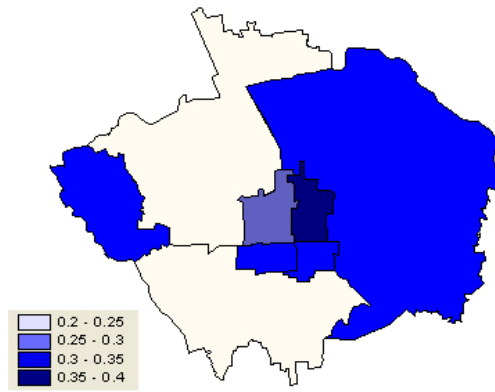


Fig 6. Proportion of one-room flats

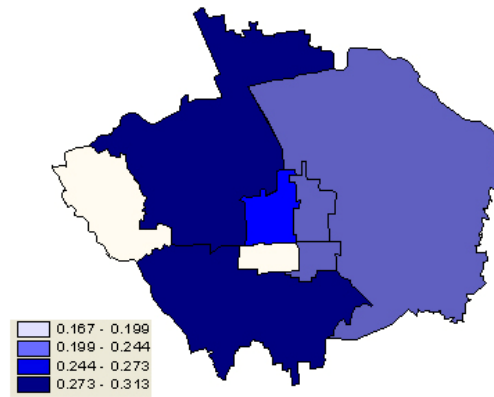


Fig 7. Proportion of flats with more than three rooms

	0 room	1 room	2 rooms	3 rooms	4 rooms	=5	total
Dongchen	5	1321	1584	605	124	54	3693
Xicheng	0	1347	2280	1164	152	45	4988
Chongwen	0	775	1045	529	40	19	2408
Xuanwu	0	1348	1907	588	45	18	3906
Chaoyang	2	5857	7183	2856	410	736	17044
Fengtai	0	2375	4799	2290	422	554	10440
Shijingshan	0	1153	1790	568	56	109	3676
Haidian	11	3422	6995	3819	356	478	15081
Total	18	17598	27583	12419	1605	2013	61236

Table 2. Number of rooms per flat in eight districts

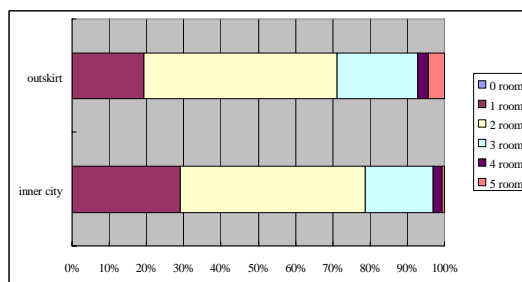


Fig 8. Number of rooms of two-generation families

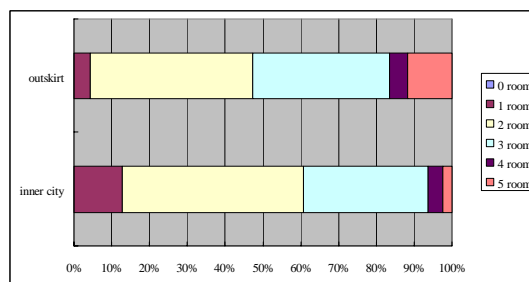


Fig 9. Number of rooms of three-generation families

Contradiction between price and demand

A contour map of housing prices in Beijing forms a series of concentric rings; the closer to the city center, the higher the price of housing (Ministry of Land and

Resources, 2003). That means that most of the inner city residents living in public housing cannot afford to purchase the commodity housing going up nearby.

Why not move out?

Questionnaire surveys in 2003 show the favorite living place for Beijing residents is still the inner city (Feng, 2004). 91.2% residents in the inner city were satisfied with their location. An online survey in 2009 shows that 56% of the residents in inner city are reluctant to move out even when they can find a better and cheaper option in the outskirts. According to Feng, there are four main reasons for this: first, the environment of the district (23.1%), including the municipal facilities, park and open space; second, quality of neighbors and safety (29.7%); third, distance to the workplace (18.2%); and fourth, education opportunity for children (17.4%).

		inner city	outskirt	total
inner city	number	114	11	125
	percentage	91.20%	8.80%	100%
outskirt	number	176	98	274
	percentage	64.20%	35.80%	100%
total		290	109	399

Table 3. Favorite living places in Beijing

According to the previous analyses, the problem with the housing situation in Beijing can be summarized as:

1. Housing demand and supply is geographically unbalanced, especially in the inner city.
2. While people are willing and even eager to live near to the city center, commodity

housing prices there are too high for most to afford.

3. Most of the people living in the inner city are reluctant to move out; even if they could get better housing by doing so. They do not want to lose the privilege and convenience of the location.

The problem with the government's policy

All efforts in housing policy made by the state government since 2005 can be understand as attempts to match the structure of housing supply to the social structure of households. The tactics used can be summarized in two categories: price and area.

The government provides privileges in the form of favorable tax incentives and land pricing to developers of affordable housing, and regulates the scale and price of affordable housing units. A majority of these government subsidized projects are far away from the city center. As a result, some inner city residents qualified to purchase affordable housing units will not live there; opting instead to rent the unit out.

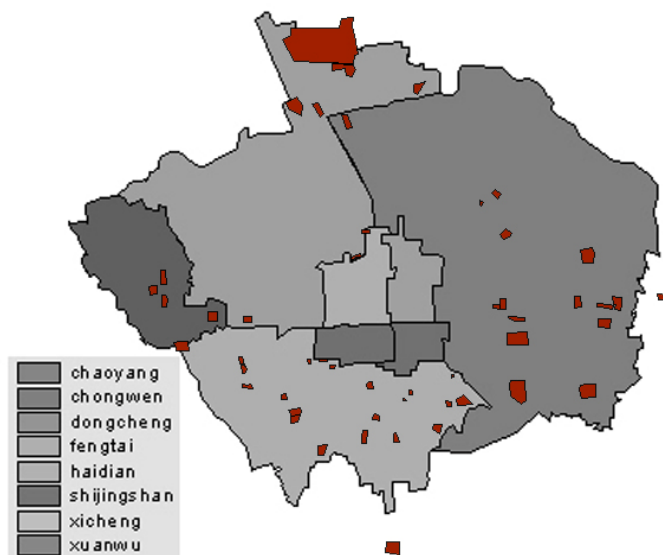


Fig 10. Distribution of affordable house

In 2007 the state government published a compulsory policy: 70% of new flat construction must be no larger than 90m². Additionally, the government began offering reduced taxes to developers who build smaller flats. These policies aim firstly to constrain the price of the flat by limiting the flat size. Secondly the government encourages small flats because family size in Beijing overall is becoming smaller. But the global trend cannot represent the trends in different districts. As a result of these policies a large amount of small luxury flats have been built in the inner city, where most of the small families will not buy them because they are still expensive the large families because they are too small.

Conclusion

In 2009, the Beijing government plans to increase the amount of affordable housing available in the city. Looking at statistics for the city overall it appears that the structure of housing supply has become healthier and healthier. When seen locally however it appears that the discrepancies in these structures have not been solved, and are in some areas escalating. No doubt spatial distribution of data is critical when constructing policy based on it. Moreover, we may seek to draw conclusions regarding the overall assumptions of the state and city governments in their approach to housing market transition in Beijing.

First, we may criticize the government for overlooking the intangible values of space and place in the city that Feng identifies in the inner city. These values are shown to supersede those more tangible quantities that the government seeks to affect through regulation: size and cost of flats. The government could perhaps effect greater control over the distribution of housing in Beijing by regulating environment of the district, the quality of neighbors and safety, distance to the workplace, and education

opportunity for children in the outskirts.

Secondly, we may question the practical and ideological differences between pre-1988 socialist housing structure and post-2005 regulated market housing in the context of China's post 1978 economic reforms and their continued management. The direct feedback occurring between the structure of housing and the structure of households and the government's attempts to integrate this feedback into policy may prove to be a microcosm of larger and more complicated efforts in other sectors of the economy. In such case, the lessons drawn above may be studied for broader application.

Finally, Beijing's experience with market housing provides a basis of comparison between that city and its international counterparts. Older, dense cities like New York and Tokyo have mature market housing systems that have developed in structure over many years alongside changing household structures. In comparing this development with Beijing's recent market reforms, greater insight may be gained on both conditions. A similar benefit may be had in comparing Beijing's experiences with newer cities where market housing has always existed under strict government regulation, such as Hong Kong.

Reference

- BEIJING STATISTICS BUREAU (2007) 2005 nian Beijing shi 1% ren kou chou yang diao cha zi liao. Beijing.
- FENG, J. (2004) *Zhuan xing qi Zhongguo cheng shi nei bu kong jian chong gou*, Beijing, Ke xue chu ban she.
- HUANG, Y. (2006) Collectivism, political control and gating in Chinese cities. *Urban Geography*, 27.
- LO, C. P. (1980) Shaping socialist chinese cities: a model of form and land use. IN GINSBURG, C. K. L. A. N. (Ed.) *China : urbanization and national development* Chicago, University of Chicago.
- MINISTRY OF LAND AND RESOURCES (2003) *Zhongguo cheng shi di jia tu ji (Land Price of Chinese cities)*, Beijing, Zhongguo di tu chu ban she.
- NATIONAL DEVELOPMENT AND REFORM COMMISSION (2006) *Jingji Shiyongfang Kaifa Bizhong Xiajiang*. Beijing.
- REICO (2005) China Real Estate Market Report. Beijing.
- TIANJIN SOCIAL SCIENCE RESEARCH CENTER (2005) *Jiating Jiegou yu Zhufang (family structure and housing). 2000 nian Renkou Pucha Guojiaji Zhongdian Ketu Yanjiu Baogao (report on 2000 population census)*. Beijing, Zhongguo tong ji chu ban she.
- LI, H. (2004) *Thoughts on Work-unit society*, Shanghai, Shiji publisher.
- REICO (2005) China Real Estate Market Report. Beijing.
- WANG, Y. (1999) *Housing policy and practice in China*, New York, St. Martin Press.
- WANG, Y. (2001) Urban housing reform and finance in China: a case study of Beijing. *Urban Affairs Review*, 36.
- WU, F. (1996) Changes in the structure of public housing provision in urban China. *Urban studies*, 1996.
- WU, F. (2006) *Private cities : global and local perspectives* London, Routledge.