

MIGRANT HOUSING IN URBAN CHINA

Choices and Constraints

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China's recent waves of internal migration, primarily rural to urban, reflect a rapidly urbanizing society undergoing a transition from a planned to a market economy. The author addresses two key questions: what access migrants have to urban housing and how migrant housing conditions compare with those of the locals. The main findings are based on citywide housing surveys and interviews conducted in Shanghai and Beijing, as well as results from official surveys. Interpretations of migrant housing patterns in urban China need to be linked with the country's unique institutional factors, particularly the circulating nature of migration, the existing household registration system, and the transitioning state of the urban housing market. Restricted access to urban housing, together with the temporary status for migrants, contributes to their poor housing conditions.

Population mobility, primarily in the form of circulating migration, has increased significantly in China since 1983. A transient population of about three million now lives in both Beijing and Shanghai, according to the cities' official 1997 surveys of "floating population,"¹ and the majority is regarded as labor migrants. Both surveys also show that about half a million migrants have lived in each city for more than three years. For many migrants, urban life is precarious—lack of shelter, low and uncertain earnings, and worsened living conditions. For some, city experience also is an eye opener—increased

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exposure to new information, exciting opportunities to learn new skills, and a chance to taste a new lifestyle.

Migration takes place in two forms: through permanent migration (*qianyi*) with formal changes of household registration (*hukou*) and through temporary movement (officially called “floating population” or *liudong renkou*) without official changes of *hukou* from the origin to the destination. The latter group, which makes up the bulk of China’s internal migration, is expected to eventually return to their home places. The notion of temporary migrants is peculiar in China’s contemporary context because it does not necessarily denote a time frame but an official designation (Chan 1996; Li and Siu 1997; Ma and Xiang 1998). For government authorities, the distinction between permanent and temporary migration is still important because permanent migration entitles migrants to urban amenities enjoyed by local residents, whereas temporary migrants have restricted access to these amenities.

In this study, I look at how temporary migrants in Beijing and Shanghai fulfill their housing needs, focusing on labor migrants who have come to the cities to seek employment (termed *economic migrants*). Specifically, I intend to assess the quality of migrant housing in terms of access and conditions. Three key research questions motivate this study: (1) What types of access do these migrants have to the reformed urban housing system? (2) How do housing conditions of temporary migrants fare against those of local residents and permanent migrants? (3) How important are such institutional factors as access to housing in determining migrant housing conditions? Consisting of four main sections, this article reviews relevant research within and outside of China, analyzes current housing provision in both cities and how temporary migrants access the system, examines housing conditions of these migrants in comparison with the locals, and compares the effects of institutional and individual factors on migrant housing conditions.

The main findings of this study are based on data drawn from citywide migrant housing surveys in Shanghai (conducted in 1999) and Beijing (in 2000), supplemented by personal interviews, results from the official 1997 Floating Population Surveys in both cities, and results from the 1995 1% Population Surveys in both cities. The housing surveys provide in-depth housing information primarily for temporary migrants, and small numbers of local residents and permanent migrants also are included as reference groups.² The basic demographic characteristics and geographical locations of the surveyed temporary migrants are shown in Table 1, which closely resemble those of the larger floating population officially surveyed by both cities in 1997. Because of the small sample size of local residents and permanent migrants, their attributes may not be fully representative of the larger populations and are supplemented by results from the 1995 1% Population Surveys.

TABLE 1: Demographic Characteristics and Geographical Locations of Temporary Migrants Surveyed

	<i>Shanghai</i>		<i>Beijing</i>	
	<i>1999 Housing Survey</i>	<i>1997 Floating Population Survey^a</i>	<i>2000 Housing Survey</i>	<i>1997 Floating Population Survey^b</i>
Age (mean)	29.6	29.9	28.6	28.2
Gender (%)				
Male	62.1	70.4	61.0	66.9
Female	37.9	29.6	39.0	33.1
Education (%)				
Little or no education	6.7	5.0	11.6	3.1
Elementary school	19.9	22.2	17.7	15.1
Junior high school	58.1	57.1	50.1	60.8
Senior high school	13.9	12.6	17.2	13.7
Associate degree or above	1.5	3.0	3.4	7.2
Combined	100.0	100.0	100.0	100.0
Marital status (%)				
Married	68.5	67.4	61.7	57.0
Single	30.2	31.8	36.9	42.1
Divorced	0.6	0.4	0.6	0.3
Widowed	0.7	0.4	0.8	0.7
Combined	100.0	100.0	100.0	100.0
Geographical location (%)				
Central city	37.4	41.5	20.8	16.0
Inner suburbs	44.6	40.3	62.4	62.9
Outer suburbs	18.0	18.2	16.8	21.1
Combined	100.0	100.0	100.0	100.0

SOURCE: Information on Beijing's 1997 Floating Population Survey is compiled from the Beijing Floating Population Survey Office (1997). Other information is based on author's calculation.

NOTE: Housing surveys in Shanghai and Beijing cover economic migrants age 15 and older.

a. Include only economic migrants age 15 and older.

b. Include all floating population age 15 and older, except for geographical location that is based on all floating population, due to data availability.

MIGRATION, REFORMS, AND HOUSING IN CHINESE CITIES

China's migratory flow has risen largely as a result of the economic disparity between urban and rural areas. Much of this flow is considered circular, in that migrants tend to maintain strong linkages with areas of origin. The increasing level of mobility is accompanied, however, by an institutional

structure unable to accommodate migrants arriving in cities. The household registration (*hukou*) system still links residency with formal employment and social welfare. Migrants without local *hukou* do not have access to local schools, citywide welfare programs, and state-sector jobs; they also cannot acquire property. This situation is most obvious in the highly segmented urban labor markets (Chan and Zhang 1999; Davin 1999; Fan 2001). Jobs in state and collective industries and institutions are available to local residents and permanent migrants with local *hukou*. Enterprises hiring labor migrants are required to obtain specific quotas from the municipal labor bureaus, although some companies circumvent such rules in hiring migrants as a cost-cutting strategy. As a result, most temporary migrants are restricted to jobs undesirable to the local population, such as in construction, domestic services, factory and farm labor, and retail trade. Because of the large presence of migrants in small-scale trades and services, they also are contributing to the formation of an urban informal sector.

A key objective of this study is to understand the choices and constraints temporary migrants face in their access to urban housing within this large framework and under the ongoing housing reforms. Most scholars agree that housing, an important element of urban amenities associated with *hukou*, remains difficult to attain for migrants (Chan and Zhang 1999; Solinger 1999; Wang and Murie 2000; World Bank 1997). Recent reforms in urban housing provision seem to largely overlook the needs of this population. Bank mortgages for new commercial housing, available now in many large cities, are restricted to the locals. In the secondary housing market where older housing units change hands, a local household registration is often required for participation. Subsidized municipal housing, a legacy of the old housing system now reserved for low-income families, is provided at below-market rents to qualified urban residents only.

Recent urban housing reforms also are a gradual process, and there is still a long way to go before the allocation of housing is controlled by the market (Bian et al. 1997; Tong and Hays 1996; Wang 2001; Zhang 2000; Zhou and Logan 1996; Zhu 2000). The changing mode of housing provision is complicated by the old institutions—work units, in particular—that still retain some of their role in social redistribution. The best example is the establishment of housing provident funds, to which both work units and their employees contribute on a regular basis.³ Those not working in state work units are therefore at a significant disadvantage because nonstate employers do not participate in such funds. Prior to the termination of welfare public housing in 1999, a significant amount of new investment capital for public housing construction also was raised by work units (about 86% in 1990 in Shanghai) (see Zhou and Logan 1996). In Beijing, more than 90% of commercial housing was bought

by work units in 1992 (Zhang 2000), and about 46% of housing investment was made by work units between 1992 and 1997 (Wang 2001).

With its intention to measure the housing quality of temporary migrants against that of the locals, this study also relies on the general literature on housing quality in selecting appropriate indicators. The measurement of housing quality is often context dependent and variable over time; therefore, there are no objective static standards. But most scholars agree that definitions of housing quality should encompass the interrelated nature of housing availability, affordability, and qualitative aspects of the residential environment (Lawrence 1995). Housing unit quality and neighborhood physical conditions respond mainly to indicators of a family's purchasing power. Ownership alone does not guarantee high quality. Low economic status significantly prevents families from acquiring residence in well-maintained housing (Rosenbaum 1996).

For measuring the qualitative aspects of the housing environment, crowding is one important indicator. Often marriage, the presence of children, and the location of the unit in the central city are all associated with greater crowding. Another indicator, housing choice, is often defined along three dimensions: tenure (owning or renting), structure type, and size of unit (Myers 1990; Spain 1990). Housing quality also may mean a more comfortable dwelling (individual space for each member of the household and with bathroom and kitchen) and the presence of appropriate facilities (with water, electricity, and heating).

Reforms have had a positive impact on housing quality in urban China. Per capita living space jumped from 6.7 square meters in 1990 to 9.3 square meters in 1998 for all cities. Cities on the east coast are faring particularly well, where per capita living space reached close to 10 square meters in 1998 (Yang and Yan 2000). In Shanghai, for instance, substantial progress has been made in raising the supply of better quality housing since the early 1990s through heavy investment (increasing from 2.6 billion yuan in 1990 to 39.1 billion in 2000) (Shanghai Statistical Bureau 2001). The city is replacing 3.6 million square meters of endangered structures and shanty apartments, mostly in the old central city. The accessibility to housing by the average family is on the rise as a result of reforms.

Such improvements in housing quality may have very little impact on temporary migrants. This is not only because of their exclusion from the mainstream housing system but also as a result of different behaviors in making housing decisions demonstrated by migrants who regard themselves as temporary members of the city (Nelson 1976; Goldstein 1993; Solinger 1995). They tend to make different housing choices, invest little income to improve living conditions, and demand fewer amenities and services. In general, only

those migrants who plan to stay in the city are willing to invest in more substantial housing. These characteristics are also borne out by transnational immigrants, particularly undocumented immigrants who may not be after permanent residence in the destination country but after earning as much money as possible in the shortest possible time. For instance, the vast majority of undocumented immigrants in the Netherlands live in rooms and seldom have a more independent type of housing—be it a house of their own or a rented house. Many of them do not pay anything at all for their accommodation (Burgers 1998).

Much of the prevailing theoretical inquiries on factors of migrant housing have evolved in a context in which private land ownership, housing, and rental markets are functional and thus have largely focused on microanalyses. Chief among these individual factors are proximity to employment, duration of residence, employment status, income level, and family status (Conway 1985; Gilbert and Varley 1990; Miraftab 1997; Turner 1968). In addition, gender, household, and life cycle factors are important in determining migrant housing choices and conditions. Other studies point out the importance of kinship and friendship ties, acting as social institutions in housing decisions (Banerjee 1983; Conway 1985). But unlike many other developing countries, China's economy is undergoing a transition from plan to market, and as a result, housing and land systems operate with a significant level of uncertainty and fluidity. It is therefore essential to recognize the importance of such institutional factors as housing and land market dynamism in determining migrant housing conditions in China's cities.

MIGRANT ACCESS TO HOUSING

ACCESS TO HOUSING BY URBAN RESIDENTS

There have been at least three alternative methods for urban residents to obtain accommodations in China: being assigned public housing, acquiring commercial housing through market mechanisms, and participating in the Economic and Comfortable Housing project. The dominant route, prior to 1999, was through a system of welfare, low-rent housing distributed by either work units or municipal governments. The end of 1999 marked a turning point for China's housing distribution system, when the provision of all welfare housing (through both municipal and work unit distribution) was ended. Sitting tenants of public housing can now choose to buy out the property right of their apartments or have to pay higher rent. Individuals buying public housing at market prices can enjoy a full ownership right, whereas those

paying cost prices obtain a limited ownership share or only a use right (see Table 2; also see Wang and Murie 2000; Zhang 2000). For most urban residents, therefore, housing is no longer a public good available at nominal cost. There is evidence that rents now correspond more closely to the size and quality of housing (Zhou and Logan 1996). To a limited number of poor urban families, subsidized municipal housing is provided at below-market rent.

A new route is through market mechanisms, in which new commercial housing is developed and sold by real estate companies (Wu 1996). Commercial housing can be sold to work units or directly to urban residents. Work units then sell the commercial housing, or housing built by the units, to their employees at discounted prices. The magnitude of this practice, however, has been significantly cut down since 1999 as many state work units have ended the practice of providing housing of a welfare nature. Employees buying at discounted prices often do not receive a full right to their housing because the work units retain an interest (see notes in Table 2; also see Zhou and Logan 1996; Zhang 2000). Employees in nonstate sectors such as foreign firms and private businesses are not eligible for discounted housing and housing subsidies offered by work units. Some state work units, using a different approach, provide cash payments to help their employees purchase fully priced commercial housing. The amount of such payments, similar to price discounts, is determined by such criteria as rank, seniority, and merit. As a result, a significant amount of so-called commercial housing still remains a partially redistributive good rather than a true commodity.

Both Shanghai and Beijing benefit from the national Comfortable Housing Project (*anju gongcheng*), which was launched in 1995 to create private-sector housing (with government support) for low-income urban families (Hui and Seabrooke 2000; Li 1999; Li 2000). Units are sold at cost to such families, especially those with inadequate or no accommodations (less than 4 square meters). In 1998, this project was revised and given a new name—Economic and Comfortable Housing (*jingji shiyong fang*). The new emphasis is on developing housing for low- and middle-income groups. The key factors that reduce the price of such housing include free land allocation, a regulated profit level for developers, smaller housing size, and reduced government charges during the development and sale process (Wang 2001).

Now a much larger amount of housing investment comes from individual urban residents. Marketization will increase the impact of household income on housing access as well as housing quality. Even before any major housing reform commenced, the linkage between income and housing quality existed despite the fact that inequalities in housing space were mainly based on occupation and political affiliation (Logan and Bian 1993).

TABLE 2: Key Housing Types in Cities and Their Availability to Temporary Migrants

<i>Type of Housing</i>	<i>Ownership (chanquan)</i>	<i>Use Right (shiyongquan)</i>	<i>For Renting (chuzu)</i>
Rural private housing	Vested ownership, with complete right to sell and transfer		<i>With permit</i>
Urban private housing	Vested ownership, with complete right to sell and transfer		<i>With permit</i>
Municipal public housing	Upon payment of market price and can be sold on approval of municipal real estate bureau ^a	Upon partial payment (monthly rent not waived) and use right may be exchanged on secondary market	<i>Beijing: with permit and on approval of municipal housing bureau; Shanghai: with permit</i> Affordable rental housing for eligible urban residents only, who are not allowed to sublease
Work unit public housing	Upon payment of subsidized price and can be sold on approval of municipal real estate bureau with some exceptions ^b	Upon partial payment or assignment and use right may be exchanged on secondary market	<i>With permit and preferably rent to residents of same work unit</i> <i>Beijing: with permit and on approval of work unit; Shanghai: with permit</i>

(continued)

TABLE 2 continued

<i>Type of Housing</i>	<i>Ownership (chanquan)</i>	<i>Use Right (shiyongquan)</i>	<i>For Renting (chuzu)</i>
Economic and comfortable housing	Upon payment of cost price and can be sold on approval of municipal real estate bureau ^a		<i>With permit</i>
<i>Domestic-sale commercial housing^c</i>	<i>Upon payment of market price, with complete right to sell and transfer</i>		<i>With permit</i>
<i>Foreign-sale commercial housing</i>	<i>Upon payment of higher market price, with complete right to sell and transfer</i>		<i>With permit</i>

NOTE: Only italicized areas are available to temporary migrants.

a. Owners of for-sale municipal public housing and comfortable housing will no longer be eligible for such housing in the future once they sell their units.

b. Buyers of work unit public housing may resell their units on approval of the municipal real estate bureau and without consultation with work units, unless (1) the housing was originally sold at discounted prices, in which case the work units retain 6% of the ownership and have the priority right to purchase back the housing, or (2) there were other conditions in the original sale contract (Bi 2000).

c. Temporary migrants may purchase, on full payment at time of sale, such domestic-sale commercial housing of specified size and price and obtain blue-stamp household registration. The size and price requirements vary by geographical location within the cities. In Shanghai, the variations are 320,000 to 350,000 yuan for central areas, 180,000 yuan in three inner suburban districts, and 100,000 to 160,000 yuan in other suburban areas. In Beijing, no official criteria have been made public, and it is extremely difficult to obtain blue-stamp household registration in the urban districts.

In addition to these three alternatives, during the past several years, it has become possible to acquire either the ownership or use right for older housing units through market mechanisms or the so-called secondary housing market.⁴ Since early 1998, Shanghai's urban residents with property rights of former public housing, including even work unit housing and municipal affordable housing, have been able to put their homes on the secondary housing market and trade for better housing (*China Daily*, 25 May 1998, 7). Beijing followed suit in late 1999.

Traditional private housing⁵ in cities tended to consist of two kinds: older housing units passed on from one generation to the next within the family⁶ and self-constructed housing in suburban areas by farmers or former farmers on land allotted by their production brigades. The earlier urban welfare housing system did not apply to local residents with rural household registration, and traditional family houses and private ownership were not changed much in rural pockets within cities. Even with reforms, these residents still do not have access to the housing provident funds established in the cities and related low-interest mortgages, as they have not been treated officially as urban population since 1964 in many cases. Self-help, informal housing is often built in crowded central cities, and private housing remains popular in suburban areas.

With both cities undergoing a large amount of urban renewal, many residents of public and private housing in downtown areas are affected. They have three options: pay a portion of redevelopment costs to acquire rights to a new commercial unit on-site, buy new commercial housing elsewhere with both relocation compensation and personal funds, and buy a municipal relocation housing unit at cost price. When new housing is developed on-site, however, it is usually too expensive for the original residents (Wang and Murie 2000). The last option is often the most affordable one, but such relocation housing tends to be built in peripheral locations.

RENTING AS A KEY HOUSING CHOICE FOR MIGRANTS

Migrants are largely excluded from the mainstream housing distribution system, as the linkage between household registration and urban housing is largely intact. Acquiring either the use right or ownership right for municipal and work unit housing, directly or through the secondary housing market, is out of question for migrants without local hukou (see Table 2). Both the Economic and Comfortable Housing project and affordable rental units also are reserved for urban residents only. But as the housing market liberalizes and a rental market develops, migrants may have more choices. For instance, Shanghai has loosened its policy on granting a special type of residency to

migrants. With cash purchase of housing units worth 100,000 yuan or more, depending on the location, migrants can obtain the special residency (blue-stamp household registration) that can become permanent after five years (*Xinmin Evening News*, 22 January 1999; see also Table 2 notes).⁷ This policy, however, only favors high-income migrants and is beyond the reach of most. In Beijing, for instance, only about 2,000 properties were sold to non-Beijing residents in 1998 (Wang and Murie 2000).

Temporary migrants, as a result, make a very different range of housing choices from local residents and permanent migrants, as evidenced by housing surveys in Shanghai and Beijing (see Table 3). Renting represents the best opportunity for migrants without local hukou, and more than half of them do so in both cities. Renting private housing is a particularly popular option for migrants settling in suburban areas. Shanghai has an overall higher level of private housing ownership and rental than Beijing, due to a history of private real estate dating back to the pre-1949 period. Beijing, on the other hand, is more organized around uniform work unit compounds and under heavier influence of a public housing system except in the old central city. In both cities, housing ownership is minimal among migrants, under 1%. Income level, in addition to government restrictions, is likely the key factor. The mean income for those migrants who own housing is almost twice that for an average migrant (1,002 vs. 623 yuan), as indicated by results from Shanghai's 1997 Floating Population Survey.

The rental sector has been active since at least the mid-1980s, when peasants began to trickle into Shanghai and Beijing. The bulk of rental housing is private housing in areas that used to be or still are agricultural within the metropolis. There are a number of reasons for this. First, rural residents have been allocated ample land to build private living quarters; for instance, an average household of four people tends to have at least 8 to 10 rooms. Second, many of the rural residents are converted to urban status after their farmland is acquired for development, and they are assigned jobs in state enterprises that today are facing a great deal of pressure to restructure. Because of their severed economic ties with rural villages, these residents tend to fare worse financially than the remaining rural residents. As a result, they have very strong incentives to rent rooms for extra income. Third, administrative reorganization during the urbanization process and subsequent neglect or incapacity also allow the rental market to operate unregulated much more easily in these areas than in the more established urban areas. This administrative problem tends to be less prevalent in rural areas where traditional village communities are more intact (Wu 2002).

Rental housing has become increasingly popular in both cities in recent years, and a variety of housing types is involved. Urban residents who have

TABLE 3: Temporary Migrants Have Limited Housing Choices (in percentages)

	<i>Shanghai</i>			<i>Beijing</i>		
	<i>Temporary Migrants</i> (n = 1,789)	<i>Permanent Migrants</i> (n = 80)	<i>Local Residents</i> (n = 137)	<i>Temporary Migrants</i> (n = 927)	<i>Permanent Migrants</i> (n = 145)	<i>Local Residents</i> (n = 154)
Renting private housing	49.0	2.5	3.6	31.9	7.6	2.6
Renting public housing	11.6	33.8	43.8	18.7	26.9	24.7
Dorm/workshed	28.8	3.8	0.0	41.6	11.0	1.3
Staying with local residents	4.6	1.3	2.9	3.9	1.4	0.0
Private housing	0.0	51.3	39.4	0.0	32.4	42.9
Commercial housing	0.7	5.0	10.2	0.4	1.4	2.6
Other ^a	5.4	2.5	0.0	3.3	19.3	26.0
Combined	100.0	100.0	100.0	100.0	100.0	100.0

a. Other housing choices include self-built shed, boat, hotel/inn, living on the street or in a hallway, and staying in hospital rooms for temporary migrants and include relocation housing and housing sold by work units for permanent migrants and local residents.

purchased ownership rights to their housing can put the so-called “public housing” up for rent (see Table 2). Since mid-2000, Shanghai has actually permitted the rental of public housing of which the sitting tenants have only use rights (*Xinmin Evening News*, 1 July 2000). In Beijing, such housing is still theoretically prohibited from being rented unless the approval of municipal housing authorities or relevant work units is obtained. But a large quantity of such housing has been rented out. There is also the rental of rooms built without proper permits or of rooms designated for institutional purposes. In reality, there is already a large rental market operating in both cities, as rents tend to stabilize by location. The incentive on the supply side is particularly strong where farmland has been acquired for development but old village neighborhoods still remain.

The rental market is still immature, with thousands of intermediate rental agencies operating and regulations taking effect only recently. Shanghai is actually the leader in opening up the rental market, issuing its first regulation targeted at migrants in 1987 and a much more comprehensive version in the summer of 2000. Beijing, on the other hand, is still working with its 1995 rental regulation for migrants. Beijing’s regulation and Shanghai’s early version were promulgated for the purpose of maintaining public security, by using a rental permit system. Concerns for adequate housing conditions and

rental rights were secondary, if not nonexistent. The rental market is further limited by the acute housing shortage in many areas of the cities, particularly the downtowns.

OTHER HOUSING CHOICES FOR MIGRANTS

Institutionally provided dormitories are another key housing choice for temporary migrants, particularly in Beijing, where the state sector is larger and hires more migrants. The operation of China's housing distribution system has relied on a vast number of state and collective work units, many of which provide basic housing and services to migrant workers. This arrangement also is preferred by government authorities because it provides a more controlled working and living environment in which matters related to temporary work and residence permits can be handled by the employer. A survey of 120 enterprises in four cities (Beijing, Wuhan, Suzhou, and Shenzhen) shows that, on average, about 75% of labor migrants employed by the enterprises live in institutionally provided dormitories (based on own calculation). These dorms are mainly provided by enterprises and businesses but also include temporary housing on construction sites. A small portion of temporary migrants stay with urban residents, which is a more common practice in central downtown districts. Most migrants staying with urban residents either are relatives of or are employed by the urban households. Other types of housing, including hotels, self-built sheds, and boats, only accommodate a small number of migrants.

A new type of housing is becoming available in both cities—migrant housing complexes managed by subdistrict and township agencies. Taopu Township, in the west of Shanghai, first began this practice partially to reuse vacant housing that once temporarily accommodated relocated urban residents and partially to better manage the increasing migrant population.⁸ Pudong District in Shanghai also has organized similar facilities since 1999 and plans to open more, using a variety of management methods (interview with the Pudong Floating Population Office). Some involve reusing old temporary housing, whereas others are new residential compounds built by large enterprises. One housing complex managed by Qinyang Township in Pudong has a capacity of 1,500 to 2,000 residents and is equipped with a community activity center, a small clinic, and a community security team of 29 people. The complex accepts migrants working in nearby enterprises or engaged in small businesses for a sustained period of time. Currently, it is more than two-thirds full due to its relatively low rent. It accommodates both single working

migrants as well as migrant families and, therefore, has a similar occupancy structure as other apartment buildings in the city. In general, migrant housing complexes in Shanghai are equipped with basic facilities and appear to be different from migrant labor camps seen in some developing countries.

Informal settlements are not a viable option for China's temporary migrants, unlike in many other developing countries, largely because of municipal authorities' intolerance of migrant congregation and squatting. In Shanghai, some small clusters of temporary housing do not seem to belong to any enterprise or institution and resemble squatter settlements. But the size of these clusters is no more than a handful of sheds on open farmland or areas undergoing development (interview with the Shanghai Floating Population Office and field visits).

However, a number of large migrant settlements or communities have been in existence in Beijing for more than a decade (Ma and Xiang 1998; Wang et al. 1998). Located mostly in suburban areas where rental housing is readily available in contrast to the city's downtown districts, these migrant enclaves or villages are formed by migrants from the same province or region. The ones best known are Zhejiang Village, Henan Village, Anhui Village, and Xinjiang Village (the bulk of this enclave was torn down in 2000 for redevelopment). Unlike most migrant communities in other developing countries, Beijing's migrant villages are existing built-up areas where migrant population outnumbers the locals. Migrants rent from local residents or live in market areas constructed by local governments or private businesses. Instances of squatting are rare.

There is a mixed feeling among migrants themselves about whether such migrant villages are an attractive housing destination. On one hand, living close to fellow migrants provides a sense of community and moral support. This is particularly helpful for migrants whose accents make it difficult to communicate with the locals and who feel that the locals often look down on them. On the other hand, mixing with local residents offers migrants better opportunities for adapting to a new lifestyle, as shown in a young Sichuan woman's reasoning: "Staying with other migrants will not help my own career growth because I will not blend into the local culture and social connections. Beijing residents are going to offer me more help in this respect" (BJM40). Another important concern of many migrants is safety. More than half of the 59 temporary migrants interviewed in Beijing feel that public safety is much worse in areas with migrant concentration. They also feel that such areas tend to attract more attention from local public security bureaus and experience more frequent police inspections.

HOUSING CONDITIONS

In addition to access, housing conditions are another critical measure of migrant housing quality. Three indicators are used. The first is per capita usable space, which includes living space and space for bathroom or kitchen facilities. This indicator has long been used within China to gauge progress in housing provision. The second indicator is a composite of seven qualitative aspects of housing, noted as Qualitative Index = $\sum Xi/9$. These seven aspects use a single scale, as outlined below. The last indicator is the level of satisfaction with current housing.

Electricity (0 = none, 1 = yes)

Water (0 = none, 1 = yes)

Piped gas or propane (0 = none, 1 = yes)

Kitchen (0 = none, 1 = shared, 2 = private)

Bathroom (0 = public only, 1 = shared, 2 = private)

Type of structure (0 = temporary, 1 = permanent)

Function of dwelling (0 = working or other purpose and residential, 1 = solely residential)

CONTRAST IN HOUSING CONDITIONS BETWEEN MIGRANTS AND LOCALS

Housing in urban China is at best mediocre, and many local residents have endured harsh conditions. This is largely attributable to the negligible income from public housing rental prior to reforms and, in turn, the very poor maintenance of the housing stock (Zhang 2000). A large housing survey in 1985 in Shanghai showed that around 216,000 households had an average per capita living space under 4 square meters, and more than 15,200 of those households had less than 2 square meters. A 1993 survey by Logan, Bian, and Bian (1999) in Shanghai showed that about half of residents did not have a private kitchen and about 60% had no private bathroom. A large proportion of urban residents was not satisfied with their current housing situation. In Beijing, a 1990 housing survey found that only a little over half of all single-story housing in the inner city, which made up for 44% of the total housing stock, was structurally suitable or safe for living (Zhang 1997).

Local residents in municipal public housing and private housing tend not to fare as well as those living in work unit (state enterprises, institutes, and agencies) housing. In many cities, municipal housing has been shrinking, and there has generally been a lack of maintenance (Wu 1996; Logan, Bian, and Bian 1999). Residents in such housing are more likely to rely on informal

construction or self-help housing to supplement housing need. This strong relationship has been found in Beijing's inner city, where the rate of informal construction is about 25% in municipal housing and private housing. Housing owned by work units has relatively better conditions and a much lower rate of informal construction (about 6%) (see Zhang 1997). Such informal construction often is of very low quality and provides additional space to meet residents' need for kitchen and storage space.

Recent reforms have brought marked improvements in housing conditions. Per capita living space in Shanghai jumped from 6.7 square meters in 1991 to 9.7 in 1998, and in Beijing it increased from 8 to 10 square meters in the same time period (Shanghai Statistical Bureau 1999; Beijing Statistical Bureau 1999). Beijing, in particular, exhibits better housing conditions than Shanghai, according to results of the 1995 1% Population Surveys. More Beijing residents have kitchen and bathroom facilities (also see Table 5). New commercial housing tends to have even more comfort and is equipped with kitchen and bathroom facilities for each household. Urban residents in dwellings sold by work units or on the open market enjoy much more housing area than those in affordable and relocated dwellings. Also, owners of new commercial housing occupy larger housing units than renters of such housing (Li 2000).

Housing conditions for temporary migrants do not compare favorably to those of urban residents and permanent migrants (see Table 4). In both cities, temporary migrants occupy far less space and endure poorer conditions. Overcrowding seems to be a feature of migrant housing, with each person using only about a third of the space occupied by a typical urban resident. These migrants also tend to live in dwellings that are less equipped with kitchen/bathroom facilities, are used for working or other purposes in addition to serving as residences, and have less stable structural features (such as temporary dorms on construction sites). It is not unusual to see a family of three sharing a single rental room with no facilities and using a corner to set up a small cooking area with either a kerosene burner or propane stove. A small portion of temporary migrants (about 3%-4% in both cities) encounters the worst housing conditions for prolonged periods of time, ranging from sleeping on hospital benches to resting by vendor stalls sheltered by only plastic sheets to sleeping under staircases in multistory apartments.

Migrant housing conditions by size and qualitative index appear to be slightly better in Shanghai than in Beijing (see Table 4). In Shanghai's central city, for instance, temporary migrants seem to fare not much worse than local residents in both indicators (see Table 5). This is largely due to the overall crowding and mediocre conditions of the downtown housing stock. In both

TABLE 4: Temporary Migrants Endure Poorer Housing Conditions Yet Are Less Dissatisfied with Their Housing

	<i>Shanghai</i>			<i>Beijing</i>		
	<i>Temporary Migrants</i>	<i>Permanent Migrants</i>	<i>Local Residents</i>	<i>Temporary Migrants</i>	<i>Permanent Migrants</i>	<i>Local Residents</i>
Per capita usable area (m ²) ^a	8.1	20.8	24.6	7.1	18.6	21.3
Qualitative index ^a	0.53	0.78	0.84	0.48	0.79	0.82
Satisfaction with current housing (cumulative %)						
Very satisfied	4.0	5.0	16.8	3.8	9.7	14.3
Satisfied	50.5	46.3	47.5	39.1	33.8	40.9
Neutral	86.6	66.3	62.1	80.5	53.1	66.2
Dissatisfied	98.1	87.6	91.3	96.4	88.3	87.6
Very dissatisfied	100.0	100.1	100.1	100.0	100.0	100.0

a. Differences among three groups in both cities are statistically significant at .0001.

cities, housing conditions are the worst for temporary migrants living in inner suburban areas (see Table 6), particularly when compared to those of local residents. The lack of kitchen and bathroom facilities is especially striking (see Table 5). Outer suburb locations seem to offer larger housing size and somewhat better housing facilities. This is a troublesome situation as the inner suburbs are now the primary receiving area for temporary migrants; for example, around 60% of them lived there between 1993 and 1997 in Shanghai (Wang 1995; Zhang 1998). The geographical location of migrants has continued to shift, since the mid-1980s, from central downtown areas to more peripheral areas (Wu 2002).

Housing conditions of permanent migrants, on the other hand, seem to be on par with those of local residents in both cities (see Table 4). This clearly shows the importance of a local hukou in gaining access to the mainstream housing system in the cities. Many of the permanent migrants interviewed have gained such access by first marrying local residents, which is a more popular choice for female migrants in suburban areas. This is because local regulations tend to favor the conversion of their place of hukou to local while keeping their hukou status rural.⁹ In time, as development encroaches into suburban areas, these families' farmland would be acquired and their hukou status converted to urban.

TABLE 5: Housing Conditions of Temporary Migrants Compare Very Unfavorably Against Those of Local Residents Across Geographical Location (in percentages)

	<i>Per Capita Usable Area (m²)</i>	<i>No Water</i>	<i>No Gas/Propane</i>	<i>No Kitchen</i>	<i>No Bathroom</i>
Shanghai					
Central city					
Temporary migrants	8.0	3.1	57.1	56.0	59.9
Local residents	12.5	0.4	4.8	50.5	54.6
Inner suburbs					
Temporary migrants	8.4	5.8	68.3	77.6	72.7
Local residents	26.8	1.6	11.4	11.2	39.2
Outer suburbs					
Temporary migrants	12.3	3.8	66.3	71.2	65.2
Local residents	28.0	3.0	19.9	12.6	44.5
Combined					
Temporary migrants	9.0	4.4	63.8	68.4	66.5
Local residents	18.7	1.1	8.7	34.1	48.8
Beijing					
Central city					
Temporary migrants	8.1	14.6	52.8	62.5	80.6
Local residents	14.4	0.1	9.4	19.8	51.1
Inner suburbs					
Temporary migrants	6.7	22.8	66.4	78.3	91.4
Local residents	20.3	0.4	16.0	10.3	26.6
Outer suburbs					
Temporary migrants	9.9	7.0	66.1	73.0	91.3
Local residents	19.2	10.9	53.2	9.0	30.6
Combined					
Temporary migrants	7.5	18.5	63.5	74.1	89.1
Local residents	18.4	1.9	19.7	13.0	34.6

SOURCE: Housing conditions of local residents based on results of the 1995 1% Population Survey in Beijing and Shanghai.

The difference a local hukou can make also is borne out by a comparison of before-and-after migration housing conditions for temporary and permanent migrants. For the latter group, migrating to Shanghai brings with them some improvement in housing conditions, whereas those to Beijing see little change (see Table 7). But for temporary migrants, moving to the cities represents a big step backwards. Housing space is reduced by close to three times, and qualitative measures deteriorate by half. More than three-quarters of temporary migrants interviewed feel that their housing conditions in

TABLE 6: Housing Conditions of Temporary Migrants Vary Across Geographical Locations Within the Cities and Significantly Affect Their Level of Satisfaction (index based on combined scores = 1.00)

	%	<i>Per Capita Usable Area</i>	<i>Qualitative Index</i>
Shanghai			
Central city	37.4	0.89	1.04
Inner suburbs	44.6	0.93	0.96
Outer suburbs	18.0	1.37	1.02
Combined	100.0	1.00	1.00
One-way ANOVA significance		0.0001	0.0001
Beijing			
Central city	20.8	1.08	1.14
Inner suburbs	62.4	0.89	0.93
Outer suburbs	16.8	1.32	1.02
Combined	100.0	1.00	1.00
One-way ANOVA significance		0.0001	0.0001
Satisfaction with current housing			
Shanghai			
Very satisfied	4.0	1.12	1.19
Satisfied	46.5	1.06	1.02
Neutral	36.1	0.93	0.98
Dissatisfied	11.5	1.01	0.94
Very dissatisfied	1.9	0.68	0.83
Combined	100.0	1.00	1.00
One-way ANOVA significance		0.012	0.0001
Beijing			
Very satisfied	3.8	1.72	1.29
Satisfied	35.3	0.97	1.04
Neutral	41.4	0.90	0.96
Dissatisfied	15.9	1.08	0.92
Very dissatisfied	3.6	1.22	0.85
Combined	100.0	1.00	1.00
One-way ANOVA significance		0.0001	0.0001

Shanghai are worse than those at home. Many of them have built two-story houses in their hometowns, some with money earned in the cities, and hope to eventually retire at home.

VARIED LEVELS OF SATISFACTION WITH HOUSING

Given the overall inadequate housing conditions, temporary migrants nonetheless express less dissatisfaction with their current housing situations

TABLE 7: Temporary Migrants Experience Significant Reduction in Housing Comfort When They Move from Their Hometowns to Cities

	<i>Shanghai</i>	<i>Beijing</i>	
	<i>Per Capita Usable Area (m²)</i>	<i>Per Capita Usable Area (m²)</i>	<i>Qualitative Index</i>
Temporary migrants			
In the city	8.1	7.2	0.47
Back at hometown	28.6	28.2	0.86
Paired <i>t</i> -test significance	0.0001	0.0001	0.0001
Permanent migrants			
In the city	20.9	18.1	0.79
Back at hometown	18.7	22.1	0.77
Paired <i>t</i> -test significance	0.403	0.254	0.614

than the locals (see Table 4). More than 80% of them feel neutral or good about their housing conditions. As these conditions improve, their level of satisfaction increases accordingly (see Table 6). This is because they choose housing primarily based on its convenience to work or business, as demonstrated by more than 65% of migrant responses in both cities' surveys. Housing size and qualitative aspects do not seem to be important factors, counting for less than 10% of responses altogether.

The comments of a middle-aged small businessman accurately reflect migrants' rationale behind their housing decisions: "I did not come to Shanghai for luxury. Wherever I can find a place I will stay there. If I cannot make money, what is the use of having a downtown apartment with two bedrooms and a living room?" (SHM22). Such a rationale also is captured by the experience of an Anhui woman who works as a medical care worker in a major hospital located in a central downtown district in Shanghai. She had slept on hospital benches for three years until the hospital no longer allowed it. Unable to afford the high rents in that central location by herself, she is renting a room of 10 square meters with four other coworkers. The relatively stable job she has in the hospital is the only factor that is keeping her where she is and the reason she remains in Shanghai (SHM64).

These preferences confirm the general understanding that migrants who regard themselves as temporary members of the city demonstrate different behaviors in making housing decisions from permanent migrants (Nelson 1976; Goldstein 1993; Solinger 1995). But many migrants feel that they would be willing to invest more in housing if they were allowed to stay in the cities permanently and were given some type of housing ownership. This

change of heart is captured in the wish of a small vendor from Hubei: “I will rebuild my current rental housing into a two-story house, and change its doors, windows and floor. Our family will live on the second floor and do business on the ground floor” (BJM21). This sentiment, on the other hand, conceals the hopelessness many migrants feel about ever finding better housing in the cities. Of the 78 migrants interviewed in Shanghai, about two-thirds do not foresee having a good chance to either find better housing (66.7%) or improve their housing conditions (60.6%).

INSTITUTIONAL AND INDIVIDUAL FACTORS

Cities in China still use household registration as a basis for providing urban services and maintaining infrastructure, even after two decades of economic reform. The distinction between permanent and temporary migration is important for municipal authorities, and permanent migration with official changes of household registration has continued to be strictly controlled. To urban residents and permanent migrants, the urban housing sector offers an increasing range of choices. As a result, the household registration system separating temporary migrants from the urban population may be a much more important factor than individual factors in counting for migrant disadvantages in housing.

Migrant expectations for better housing may increase if their access to the urban housing distribution system is improved. The housing surveys show that access to housing is closely associated with housing conditions of temporary migrants (see Table 8). Most of them rent or live in dormitories, which tend to have worse overall housing conditions. When they stay with local residents, thus gaining indirect access to the urban distribution system, their housing conditions improve markedly. For those able to afford commercial housing, which is the only real property sector open to all population groups, housing conditions are on par with the locals.

The significant impact of access to housing on migrant disadvantages is borne out by a multivariate regression analysis on migrant housing conditions (see Table 9). Three groups of individual factors are included as independent variables—demographic, employment, and migration experience. A fourth group of independent variables relates to housing characteristics, including access to housing and location. Because regression coefficients are unit dependent, my discussion focuses on standardized regression coefficients in assessing the extent to which each independent variable is influential. To disentangle the effects of institutional attributes from individual

TABLE 8: Housing Type Is Closely Associated with Housing Conditions for Temporary Migrants (index based on combined scores = 1.00)

	<i>Per Capita Usable Area</i>	<i>Qualitative Index</i>
Shanghai		
Renting private housing	1.09	0.98
Renting public housing	1.25	1.04
Dorm/workshed	0.72	1.02
Staying with local residents	1.28	1.40
Private housing	NA	NA
Commercial housing	2.42	1.65
Other ^a	0.84	0.73
Combined	1.00	1.00
Beijing		
Renting private housing	1.11	1.02
Renting public housing	1.04	0.88
Dorm/workshed	0.80	0.95
Staying with local residents	2.04	1.65
Private housing	NA	NA
Commercial housing	3.00	2.05
Other ^a	0.76	0.77
Combined	1.00	1.00

NOTE: NA = not applicable.

a. Other housing choices include self-built shed, boat, hotel/inn, living on the street or in a hallway, and staying in hospital rooms.

factors, I have estimated models with (columns 1) and without (columns 2) housing type as predictors.

Access to housing has a particularly strong impact on the qualitative aspects of migrant housing, and the effect outweighs that of any individual factors. For temporary migrants, nearly half of the variance in qualitative index can be attributed to housing type. When they stay with local residents or purchase commercial housing, therefore gaining some access to the urban housing system, they are likely to enjoy significantly better facilities—consistent with the bivariate analysis presented in Table 8. When access to urban housing is severely restricted, they have fewer facilities while staying in self-built sheds and boats, living on the street or in hallways, or staying in hospital rooms. The impact of housing type on size is similar and marked but weaker. These results confirm that there is a general disadvantage that applies to all temporary migrants in housing.

The combined effect of individual factors seems to be stronger on housing size than on qualitative index (columns 2 in Table 9). The most important

TABLE 9: Regression on Migrant Housing Conditions (standardized coefficients, N = 2,720)

<i>Independent Variable</i>	<i>Per Capita Usable Area</i>		<i>Qualitative Index</i>	
	<i>1</i>	<i>2</i>	<i>1</i>	<i>2</i>
Demographic				
Age (years)	0.055**	0.055*	-0.016	0.017
Gender ^a (female = 1)	-0.006	0.014	0.082***	0.135***
Education (years)	0.077***	0.083***	0.095***	0.091***
Household registration ^a (rural = 1)	-0.053**	-0.062**	-0.057**	-0.080***
Marital status ^a (reference: widowed)				
Married with family in city	-0.125***	-0.109***	-0.020	-0.029
Married without family in city	-0.058**	-0.053**	-0.006	-0.013
Single	0.024	0.025	0.051**	0.064**
Divorced	0.011	0.010	-0.020	-0.027
Number of children in city	-0.060**	-0.065**	0.034	0.025
Employment				
Employment status ^a (with employment = 1)	0.052**	0.017	-0.005	-0.023
Type of employer ^a (reference: missing values)				
State enterprise	-0.106***	-0.060*	0.009	-0.005
Collective enterprise	0.008	0.015	-0.050**	-0.046*
Private enterprise	-0.067***	-0.063**	-0.009	-0.012
Self-employed	0.004	0.060*	-0.105***	-0.090***
Foreign enterprise	-0.008	0.005	0.076***	0.078***
Travel time to work (minutes)	0.005	0.042*	0.064***	0.071***
Personal monthly income (yuan)	0.124***	0.129***	0.034	0.016
Household monthly income (yuan)	0.035	0.053	0.113***	0.118***
Migration experience				
Duration of residence in city (years)	0.030	0.040*	0.038*	0.073***
Entry methods ^a (reference: others)				
Migrate by self	-0.009	-0.009	0.007	0.010
Migrate with relatives	0.007	0.011	-0.007	-0.010
Migrate with townsmen	-0.062**	-0.065***	0.011	0.009
Annual visits back home	0.040*	0.040*	0.006	0.005
Annual income remittance (yuan)	0.029	0.022	-0.007	-0.015
Plan to stay in city ^a (plan to stay = 1)	0.068***	0.072***	0.086***	0.102***
Housing characteristics				
Housing type ^a (reference: private housing)				
Renting private housing	-0.046		0.024	
Renting public housing	0.026		-0.024	
Dorm/workshed	-0.163***		-0.005	
Stay with local residents	0.064***		0.255***	
Commercial housing	0.089***		0.128***	
Other housing	-0.044*		-0.111***	

TABLE 9 continued

<i>Independent Variable</i>	<i>Per Capita Usable Area</i>		<i>Qualitative Index</i>	
	<i>1</i>	<i>2</i>	<i>1</i>	<i>2</i>
	Housing location ^a (reference: missing values)			
Central city	0.002	0.122***	0.096***	0.138***
Inner suburbs	0.040	0.150***	-0.001	0.011
Outer suburbs	0.170***	0.269***	0.069***	0.090***
<i>R</i> ²	0.159	0.138	0.218	0.128

a. Dummy variable.

* $p < .05$. ** $p < .01$. *** $p < .001$.

ones are income (personal or household) and education, both with positive impacts. Income could be expected to be influential because, even with restricted access to urban housing, migrants with higher income can afford to rent bigger places with better facilities. The effect of education is also positive but weaker. In addition, the intention of migrants to stay in the city has a positive impact on their housing conditions, and the effect seems to be stronger than that of the duration of residence. This result supports the notion that migrants who view themselves as temporary residents are likely to make different housing decisions and invest less in accommodations, no matter how long they may have lived in the city.

Several other individual factors have limited, negative impacts on migrant housing conditions. Married migrants living with their family and children are likely to have smaller housing areas for each household member and enjoy fewer facilities. This confirms that urban life may be more precarious for larger families migrating together (World Bank 1997). Temporary migrants working in state-sector and private enterprises tend to live in more crowded housing, and those in self-employment experience worse housing facilities. Migrants from rural origins show more disadvantages in housing than those from urban origins. Further analysis of the intricate relationships between the individual factors is planned for future research.

Housing situations of China's migrants are intriguing in part because they represent a significantly different pattern from those in other developing countries, particularly where market factors play a greater role in housing. Research on migrant housing in Latin American countries shows that there appears to be a direct relationship between housing choices (e.g., renting vs. ownership) and economic status of migrants. Often it is only after migrants

reach the stage of a secure job with reasonable income that they are able to become owners of a dwelling and enjoy better housing conditions as well as stability. Housing quality also is directly linked to duration of residence in the city. Over time, migrants tend to improve their housing conditions by moving from rented rooms to squatter dwellings and then to houses (Conway 1985; Gilbert and Varley 1990; Turner 1968).

In addition, age, gender, and life cycle factors are important in migrants' housing decisions in some Latin American countries. For instance, in Mexico, female-headed migrant households find central-city rental housing more suitable to them because of their need to combine domestic and income-generating activities (Miraftab 1997). Better facilities in such housing especially appeal to young, working mothers. China's temporary migrants, however, do share some similar behavior patterns with their counterparts elsewhere in that they all tend to invest little income to improve housing conditions. The critical factor often lies in the intention of migrants and their commitment to cities because as long as they intend to return to rural areas of origin, their behavior will be shaped differently. But some evidence for Africa and Latin America suggests that over time, urban ties surpass rural ties, and temporary migrants settle more permanently at urban destinations (Nelson 1976).

NEED FOR INSTITUTIONAL REFORM

The main objective of this study has been to examine and explain migrant housing quality in China's urban settings. I have argued that interpretations of these patterns need to be linked with the unique institutional factors, particularly the existing household registration system, the transitioning state of the urban housing market, and the circulating nature of migration. Together they define constraints migrants face in making housing and settlement decisions. The gradual commercialization and opening of the urban housing sector offer only limited choices for migrants. Institutional factors still very strongly condition migrants' housing choices.

My analysis shows that migrants are largely excluded from the mainstream housing distribution system, and recent reforms in urban housing provision seem to largely overlook the needs of this population. Acquiring either use right or ownership right of municipal and work unit housing is out of question for migrants without local hukou because the linkage between household registration and urban amenities is largely intact. Commercial housing, the only real property sector open to them, is beyond the purchasing power of most migrants. Renting, as a result, represents the best opportunity

for these migrants. But housing stability is minimal because the rental sector is immature, and regulations provide little protection for renters' rights and security. In addition, when migrants find jobs in state and collective enterprises, most of them also obtain access to institutionally provided dormitory housing—a legacy of the welfare housing system.

Restricted access to housing, together with the temporary status for migrants, contributes to poor housing conditions. Compared to the locals, migrants fare worse in size and qualitative index. Temporary migrants in Beijing fare worse overall than those in Shanghai, and migrants living in the central areas of both cities tend to suffer from more overcrowding than those in outer suburban areas. Crowding is likely to be reduced as migrants move away from downtown areas, but living in suburban housing comes with fewer household facilities. Housing conditions (both size and qualitative index) are the worst for migrants living in inner suburbs, which are quickly becoming the primary receiving area for migrants. The drop in housing comfort is particularly striking when compared to how most temporary migrants have lived back at home.

My analysis also shows that better access to the urban housing system may bring improved housing conditions for temporary migrants. The comparison with permanent migrants is illustrative, for whom the movement to cities brings improvement in housing so that they enjoy similar housing conditions to local residents. Such a divergent result is largely attributable to the open access to urban housing enjoyed by permanent migrants with official changes of household registration. The general disadvantages experienced by temporary migrants have much of their roots in the institutional restrictions that outweigh the effect of any individual factors.

Given the enormous magnitude of migration and its potential impact on China's cities, it is important to explore ways in which migrant access may be broadened, especially in light of the declining role of the state and work units as service and housing providers. Further housing reform, for instance, should aim to help improve migrants' quality of life and prevent slum formation. Specifically, migrants can be allowed to participate in the secondary housing market, where older apartment units are more affordable. Migrants also could be given greater access to jobs and educational facilities previously open only to local residents only. Of course, these measures do not fully address the costs and hardship that migrants bear as a result of the household registration system, whose reform would have to be initiated by the central government. The current practice of linking household registration and the provision of urban amenities may not be conducive to the accommodation and adaptation of migrants in cities.

NOTES

1. The concept of "floating population" includes tourists, people on business, and other short-term visitors in addition to temporary migrants (Chan 1996). The focus of this study is on the portion of the "floating population" who have come to the cities for economic or employment-related reasons without official changes of residence, rather than those who are in the city for cultural reasons (e.g., training, attending conferences, and engaging in fieldwork) and social reasons (e.g., visiting families and friends, relocation due to marriage or retirement, seeking medical treatment, tourism, and transient stay).

2. Multistage stratified cluster sampling procedures, in combination with population-proportionate-to-size procedures, are used for selecting respondents in the housing surveys. The survey in Shanghai consists of 1,845 temporary migrants, 81 permanent migrants, and 138 urban residents (totaling 2,064 valid questionnaires). The survey was conducted between December 1998 and March 1999 in 22 neighborhoods of Shanghai's 17 districts/counties (out of a total of 20) and 11 enterprises/institutions. The survey in Beijing was carried out between May and July 2000 in 18 neighborhoods of Beijing's 12 districts/counties (out of a total of 18) and 13 working units of various types. The final outcome was completed questionnaires by 947 temporary migrants, 152 permanent migrants, and 160 local residents. After the surveys, a pool of longer-term migrants (78 in Shanghai and 59 in Beijing) as well as a small number of locals were selected and visited again for in-depth interviews. To ensure confidentiality, only the code number is used when interview materials are presented.

3. The housing provident fund was first introduced in Shanghai in 1991, modeled after Singapore's experience. Employees were required to pay 5% of their salaries to their provident fund account, with work units matching another 5%. All contributions became the property of employees and could only be used for housing-related purposes. This practice was introduced nationwide in 1994. However, most nonstate employers do not participate in such funds, even though Shanghai has been allowing the participation of nonstate enterprises in the provident fund since mid-1998 (*Shanghai Star*, 6 June 1998). Also see Wu (1999) and Zhang (2000).

4. Some types of public housing, such as university faculty housing and some old row houses (*linong fang*), are not allowed to be traded on the secondary market.

5. This private housing, however, is different from private housing in most other market economies. Because land is still publicly owned in China, owners of private housing can only claim property right to the structure and are required to pay land fees.

6. Private urban housing confiscated prior to and during the Cultural Revolution was returned to original owners in the 1980s.

7. In general, the primary candidates for a blue-stamp household registration are three groups of migrants: investors, property buyers, and professional or skilled workers. The higher the administrative status of a city, the higher the price for a blue-stamp household registration will be (see Chan and Zhang 1999).

8. A nearby city, Hangzhou, also has opened a similar housing facility for a capacity of 550 and is expected to open more (see *Liberation Daily*, 14 July 1999). Beijing is planning to do the same.

9. The *hukou* system in China is based on two classifications: place of registration and type of registration (urban vs. rural) (see Chan and Zhang 1999). In the suburban and rural areas of both cities, local authorities have allowed young men to request local *hukou* for their wives and children when they marry nonlocal women. Granting local *hukou* to nonlocal men married to local women, on the other hand, is strictly controlled. All such *hukou* conversions need to be approved first by village committees, then by township governments, and finally by county or district public security bureaus (personal interviews).

REFERENCES

- Banerjee, B. 1983. Social networks in the migration process: Empirical evidence on chain migration in India. *Journal of Developing Areas* 17 (2): 185-96.
- Beijing Floating Population Survey Office. 1997. *Beijing floating population survey data book*. Beijing: Beijing Floating Population Survey Office.
- Beijing Statistical Bureau. 1999. *Statistical yearbook of Beijing*. Beijing: China Statistical Press.
- Bi, B. 2000. *Housing: Purchase, sale, transfer, rental, and use* (zhufang: mai mai huan zu yong). Beijing: China Development Press.
- Bian, Y., J. R. Logan, H. Lu, Y. Pan, and Y. Guan. 1997. Work units and the commodification of housing: Observations on the transition to a market economy with Chinese characteristics. *Social Science in China* 18 (4): 28-35.
- Burgers, J. 1998. Formal determinants of informal arrangements: Housing and undocumented immigrants in Rotterdam. *Journal of Ethnic and Migration Studies* 24 (2): 295-313.
- Chan, K. W. 1996. Post-Mao China: A two-class urban society in the making. *International Journal of Urban and Regional Research* 20 (1): 134-50.
- Chan, K. W., and L. Zhang. 1999. The hukou system and rural-urban migration in China: Processes and changes. *China Quarterly*, December, 818-55.
- Conway, D. 1985. Changing perspectives on squatter settlements, intraurban mobility, and constraints on housing choice of the Third World urban poor. *Urban Geography* 6 (2): 170-92.
- Davin, D. 1999. *Internal migration in contemporary China*. New York: St. Martin's.
- Fan, C. C. 2001. Migration and labor-market returns in urban China: Results from a recent survey in Guangzhou. *Environment and Planning A* 33:479-508.
- Gilbert, A., and A. Varley. 1990. Renting a home in a Third World city: Choice or constraint? *International Journal of Urban and Regional Research* 14 (1): 89-108.
- Goldstein, S. 1993. The impact of temporary migration on urban places: Thailand and China as case studies. In *Third World cities: Problems, policies, and prospects*, edited by John D. Kasarda and Allan M. Parnell, 199-219. Newbury Park, CA: Sage.
- Hui, E.C.-M., and B. Seabrooke. 2000. The housing allowance scheme in Guangzhou. *Habitat International* 24 (1): 19-29.
- Lawrence, R. J. 1995. Housing quality: An agenda for research. *Urban Studies* 32 (10): 1655-64.
- Li, L. H. 1999. *Urban land reform in China*. London: Macmillan.
- Li, S.-M. 2000. Housing consumption in urban China: A comparative study of Beijing and Guangzhou. *Environment and Planning A* 32:1115-34.
- Li, S.-M., and Y.-M. Siu. 1997. A comparative study of permanent and temporary migration in China: The case of Dongguan and Meizhou, Guangdong province. *International Journal of Population Geography* 3:63-82.
- Logan, J. R., and Y. Bian. 1993. Inequalities in access to community resources in a Chinese city. *Social Forces* 72 (2): 555-77.
- Logan, J. R., Y. Bian, and F. Bian. 1999. Housing inequality in urban China in the 1990s. *International Journal of Urban and Regional Research* 23 (1): 7-25.
- Ma, L. J. C., and B. Xiang. 1998. Native place, migration and the emergence of peasant enclaves in Beijing. *The China Quarterly*, September, 546-81.
- Miraftab, F. 1997. Revisiting informal-sector home ownership: The relevance of household composition for housing options of the poor. *International Journal of Urban and Regional Research* 21 (2): 303-22.
- Myers, D. 1990. Introduction: The emerging concept of housing demography. In *Housing demography*, edited by D. Myers, 3-31. Madison: Univ. of Wisconsin Press.

- Nelson, J. M. 1976. Sojourners versus new urbanities: Causes and consequences of temporary versus permanent cityward migration in developing countries. *Economic Development and Cultural Change* 24 (4): 721-57.
- Rosenbaum, E. 1996. Racial/ethnic differences in home ownership and housing quality, 1991. *Social Problems* 43 (4): 403-26.
- Shanghai Statistical Bureau. 1999. *Statistical yearbook of Shanghai*. Beijing: China Statistical Press.
- . 2001. *Statistical yearbook of Shanghai*. Beijing: China Statistical Press.
- Solinger, D. J. 1995. China's urban transients in the transition from socialism and the collapse of the communist "urban public goods regime." *Comparative Politics*, January, 127.
- . 1999. *Contesting citizenship in urban China: Peasant migrants, the state, and the logic of the market*. Berkeley: Univ. of California Press.
- Spain, D. 1990. Housing quality and affordability among female householders. In *Housing demography*, edited by D. Myers, 86-108. Madison: Univ. of Wisconsin Press.
- Tong, Z., and R. A. Hays. 1996. The transformation of the urban housing system in China. *Urban Affairs Review* 31 (5): 625-58.
- Turner, J. F. C. 1968. Housing patterns, settlement patterns, and urban development in modernizing countries. *Journal of the American Planning Association* 34 (6): 354-63.
- Wang, H., S. Liu, L. Sun, and B. Xiang. 1998. "Zhejiang Village": A unique way for Chinese peasants to move into the cities. *Social Sciences in China* 19 (1): 22-37.
- Wang, W., ed. 1995. *Shanghai's floating population in the 1990s* (jiushi niandai Shanghai liudong renkou). Shanghai: Eastern China Normal Univ. Press.
- Wang, Y. 2001. Urban housing reform and finance in China: A case study of Beijing. *Urban Affairs Review* 36 (5): 620-45.
- Wang, Y., and A. Murie. 2000. Social and spatial implications of housing reform in China. *International Journal of Urban and Regional Research* 24 (2): 397-417.
- World Bank. 1997. *Sharing rising incomes: Disparities in China*. Washington, DC: World Bank.
- Wu, F. 1996. Changes in the structure of public housing provision in urban China. *Urban Studies* 33 (9): 1601-27.
- Wu, W. 1999. City profile: Shanghai. *Cities: The International Journal of Urban Policy and Planning* 16 (3): 207-16.
- . 2002. Temporary migrants in Shanghai: Housing and settlement patterns. In *Globalization, market reform, and the new Chinese city*, edited by J. R. Logan, 212-26. New York: Blackwell.
- Yang, F., and X. Yan. 2000. Analysis of housing conditions of China's urban residents in the recent decade. *Urban Problems* (chengshi wenti), no. 96:21-25.
- Zhang, J. 1997. Informal construction in Beijing's old neighborhoods. *Cities: The International Journal of Urban Policy and Planning* 14 (2): 85-94.
- Zhang, S., ed. 1998. *The current status and future of Shanghai's floating population*. Shanghai: East China Normal Univ. Press.
- Zhang, X. 2000. Privatization and the Chinese housing model. *International Planning Studies* 5 (2): 191-204.
- Zhou, M., and J. R. Logan. 1996. Market transition and the commodification of housing in urban China. *International Journal of Urban and Regional Research* 20 (3): 400-21.
- Zhu, J. 2000. The changing mode of housing provision in transitional China. *Urban Affairs Review* 35 (4): 502-19.

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