

# *Emigration, Housing Conditions, and Social Stratification in China*<sup>1</sup>

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Using data from the 1995 China 1% Population Sample Survey, this article examines the impact of international migration on housing conditions in China. We find that international migration affects housing conditions differently in cities, towns, and rural areas. In rural areas, the impact of emigration on housing conditions is seen primarily through the increase of housing space, whereas in cities the impact of emigration on housing conditions is mainly reflected in the improvement of facilities. Although having a cadre in the household continues to be an important factor, international migration has begun to challenge, and even rival, this legacy of social stratification in China.

Recent years have witnessed a significant increase in emigration from China to the New York metropolitan area. Unlike the traditional Chinese immigrants who are most likely to be from Guangdong (or Canton) Province, the recent wave of Chinese immigrants arriving in New York are almost entirely from Fujian province on China's east coast.<sup>2</sup> By some estimates, there are as many as 150,000 immigrants from Changle alone (a county-level city in Fujian province) who have moved to New York (Hood, 1997). The arrival of a large number of Fujianese immigrants has important implications for the New York metropolitan area and in particular for Manhattan's Chinatown. In fact, most of New York's Chinese fast food restaurants are owned by Fujianese, a phenomenon that some attribute to the Fujianese work ethic and

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<sup>2</sup>Although the New York metropolitan area is the major destination, Fujianese immigrants also choose other countries as well (*see* Brooke, 1999; Gall, 2000).

their willingness to engage in price wars (Kwong, 1997; Lii, 1996). As the tide of Fujianese immigration gains further momentum, the Fujianese are becoming more involved in the politics and government of Manhattan's Chinatown. Today, many events in Chinatown are sponsored by the Fukien American Association, an ethnic organization for immigrants from Fujian Province who live in metropolitan New York.

The recent flow of immigrants has not only affected the destination communities but also the sending communities. Although there is an emerging body of literature that deals with the causes of emigration from Fujian province, researchers have paid scant attention to the impact of recent Fujianese emigration on the sending communities. As any visitors to Fujian province can attest, international migration has had a major impact on the sending communities, both structurally and economically. One striking characteristic in these communities is clusters of newly built houses with fancy architecture and ornate decorations. As a result of the boom in construction, numerous home improvement businesses have set up shops along the busy streets. In this article, we endeavor to explore the impact of emigration on the migrant-sending communities of Fujian province. The major research question is how emigration from Fujian Province affects the housing conditions in the sending region. We mainly rely on two streams of research literature to guide our research: the impact of international migration on migrant-sending communities on the one hand and current research on social stratification in China on the other.

The study of the relationship between emigration and housing conditions is important because housing characterizes one dimension of the well being of household members. It is especially important in the Chinese context because, for a long time, the housing shortage has been a major problem facing Chinese residents, especially in cities (Logan *et al.*, 1999). In addition, in the regime of state socialist societies, since housing is a scarce resource it is often used as a privilege to reward cadres and people with positional powers (Logan *et al.*, 1999). We argue that with the large amount of remittances at the disposal of migrant households, international migration is likely to challenge, if not break, this pillar of the old stratification order in Chinese society.

Furthermore, the study of housing in migrant-sending communities is indeed crucial because of its linkages to the future trends of emigration. Housing takes a more symbolic role for these migrant-sending communities, in that building an attractive house in a community not only means an improvement in the standard of living for that particular migrant household, it also signals

that a particular migrant has achieved monetary success in a destination community. This, in turn, boosts the relative status of the household and sets up a role model for others to follow. Thus, the connection between housing and future emigration trends indeed warrants further research.

In this article, we analyze the impact of international migration on housing conditions in Fujian province, one of the major emigrant-sending provinces in China. We draw on the data from the 1995 China 1% Population Sample Survey. We compare the housing conditions of emigrant and non-emigrant households. We are particularly interested in evaluating the importance of having an emigrant in the household versus having a cadre in the household as regards the level of improvement of housing conditions. We end with a discussion of future research directions.

### *INTERNATIONAL MIGRATION AND COMMUNITY DEVELOPMENT*

There is a large body of literature discussing the relationship between international migration and community development. Researchers have long noted the large amount of remittances sent by emigrants. For example, according to an estimate by the United Nations, in 1989, remittances amounted to \$61 billion worldwide. In the case of Mexico, the results show that migradollars are on the order of \$2 or \$3 billion per year (Durand *et al.*, 1996). The amount of remittances has become an important part of household income in many migrant-sending communities. In a migrant-sending community in the Dominican Republic, for instance, international remittances account for 36 percent of income of that community (Georges, 1990).

Despite this large amount of remittance and its impact on income distribution in sending communities, most prior researchers showed that a large proportion of remittances was used in consumption and suggested further that international migration exacerbates the dependency of sending communities. After a survey of 37 community studies (mainly conducted in Mexico), Durand and Massey stated that these studies "are remarkably unanimous in condemning international migration as a palliative that improves the material well-being of particular families without leading to sustained economic growth within migrant communities" (Durand and Massey, 1992:25). Furthermore, in reviewing the findings of these community studies, Durand *et al.* (1996) also found that although the proportion of migradollars spent in production is always less than 50 percent, there is a significant variation across different communities. Using data from 23 Mexican communities, Durand

*et al.* (1996) identified a set of individual, household, and community factors that influence patterns of remittance and how remittances are used. For instance, migrants who have high levels of education, potential family workers, and real estate assets are more likely to invest the migradollars into production than others without such resources. Two findings concerning the effect of community characteristics are also worth noting. One is that migrants from highly developed communities are less likely to spend money on housing. Another is that migrants are much more likely to spend migradollars on production if the migrant comes from a community where an *ejido* (communal land) has been established.

Two reviews by Taylor *et al.* (1996a,b) exhaustively summarize the worldwide research literature on international migration and development at the community and national levels. They conclude that “village studies from around the world thus replicate the remittance-use patterns discovered in national surveys: foreign earnings are spent primarily on food, clothing, consumer goods, and housing...” (Taylor *et al.*, 1996b:401). To what extent does this statement apply to China, a country that was isolated from the outside world for three decades between 1949 and 1978? Emigration from China began to increase in the 1980s and continued to accelerate in the 1990s, as manifested in the large increase of Chinese communities in major cities across the United States and other countries. Since the large flow of contemporary Chinese emigration is a relatively recent phenomenon, we know very little about how emigration affects immigrant-sending communities in the 1990s.

We seek to extend this discussion of international migration and development into the case of Fujian province in China, which has in recent years sent a large number of immigrants to the United States and other countries (Kwong, 1997). China is a particularly interesting case for the following reasons. Unlike emigration from Mexico and other Latin American countries, the geographic distance between China and the United States is much greater. Given the physical distance, it is not easy to determine whether or not emigrants will be eager to invest in housing in the communities of origin because visiting home is much more difficult when compared to immigrants returning to either Mexico or other Latin American countries. Furthermore, not only is the physical distance much greater for the Fujianese immigrants, many Fujianese immigrants are undocumented and as such cannot return to China before obtaining legal status (such as green cards). In practical terms, this means that many Fujianese migrants often live in the United States for a long time before they are able to make a trip back home.

Second, although previous work in this area has identified certain community-level factors that affect migrant investment strategies, there is little discussion about the impact of rural/urban origin immigrants on investment strategies (*see* Knight and Song, 1994). For instance, to what extent do immigrants from rural and urban areas differ in their housing improvement strategies? In China, given the long history of rural/urban division since 1949, we expect the impact of emigration on housing conditions to differ by rural/urban origin. Specifically, in rural areas, remittances can be used to build new houses, add extensions, or to improve the overall housing conditions. In cities, however, it is almost impossible to build new houses or increase living space for individual families because apartments are often allocated through work units. In addition, because of the lack of real estate markets as well as prohibitively high commercial housing prices in urban China, at least in the mid-1990s, purchasing houses was the privilege of a very small number of wealthy individuals. Therefore we expect that remittances to families in cities are likely to be limited to improving housing conditions.

#### *INTERNATIONAL MIGRATION AND CHANGING ORDER OF SOCIAL STRATIFICATION IN CHINA*

In addition to the literature on international migration and community development, study of access to housing has drawn a great deal of attention from students of Chinese society (Chen and Gao, 1993a,b; Lee, 1988; Logan *et al.*, 1999; Zhou and Logan, 1996; Walder, 1995). In particular, the shortage of housing, especially in urban China, has been documented by many scholars. For example, according to a national survey in 1985, about 40 percent of the households were in crowded housing living quarters, *i.e.*, per capita living space of less than four square meters (cited in Zhou and Logan, 1996). The shortage of housing in urban China reflects the long-term rhetoric of "production first and consumption second." Because housing is considered as an integral part of consumption, it historically received insufficient investment from the Chinese government (Chen and Gao, 1993a; Whyte and Parish, 1984).

Housing conditions improved considerably between 1985 and 1995. Results from the 1995 China 1% Population Sample Survey show that the per capita living space was thirteen square meters for residents of cities and towns (SSB, 1997). In spite of housing improvements, surveys conducted in the mid-1990s continue to suggest that the housing shortage is one of the major concerns of urban residents (Yuan and Fan, 1998).

The shortage of housing does not mean that everybody gets an equal amount of living space, however. In fact, there is a significant level of inequality in terms of access to housing of different sizes and conditions. Zhou and Logan suggested that "housing authorities could use housing and other welfare benefits to institute cadre privilege and reward politically loyal and disciplined workers" (Zhou and Logan, 1996:401). There are special regulations about housing allocations among different ranks of cadres. For example, prior to economic reform in China, the standards were 42-45 square meters for workers, 45-50 for cadres, 60-70 for cadres at the division level, and 80-90 at the higher levels (Yang and Wang, 1992, cited in Zhou and Logan, 1996). It is therefore not surprising to find that cadres and administrators live in relatively large apartments with good amenities. Using data from the city of Tianjin, Walder (1995) found that income and education are not important predictors of apartment size. What is important is whether the individual is an administrator or not. In a recent study of housing access in Shanghai and Tianjin, Logan *et al.* (1999) further confirm the importance of cadres and party members. We therefore expect that people with positional power, such as cadres and party members, are likely to have larger homes in addition to better housing conditions.

Although recent studies of social stratification in China established the importance of housing and identified major sources of inequality with regard to access to housing, to date there has been little discussion of how international migration affects housing conditions in China. Given the increasing number of individuals emigrating from China there is a need to take this into account. The issue takes on particular significance in the major international migrant-sending communities in China's coastal provinces, including Fujian and Guangdong. International migration, we argue, challenges the existing stratification order within migrant-sending communities. With remittances from abroad, families in cities are able to improve the housing conditions significantly, ranging from the ability to purchase propane gas for cooking to relocating to larger and more comfortable apartments. For individuals in the countryside, it is often the case that families are able to build new houses with the remittance money. Thus, rather than trying to become a cadre for the purpose of better housing, household members can now use international migration and remittances as vehicles for social mobility, representing an alternative way to get ahead in China's housing market and improve their standing in the social stratification system.

### *THE CASE OF FUJIAN PROVINCE*

Fujian Province is located on the southeast coast of China. Its population in 1995 was about 33 million (SSB, 1997). Fujian has a long history of sending emigrants overseas, particularly to Southeast Asia. Large proportions of the Chinese population in the Philippines, Indonesia, and Thailand are originally from Fujian (Zhu, 1991). Since the economic reform in 1978, Fujian has enjoyed steady economic growth (Nee and Su, 1990). The gross domestic product (GDP) has grown at about 12 percent per year, and GDP ranking in China increased from twenty-second place in 1978 to eighth in 1995 (Lyons, 1998). Perhaps partly due to Fujian's recent economic growth, it has been one of the major research sites for recent sociological studies in China (Nee, 1989; Nee and Su, 1990).

Aside from economic growth and prosperity, Fujian in recent years has experienced a large flow of emigrants to numerous countries in the world, particularly to the United States and Japan. Emigration from Fujian to the United States has received a lot of attention from scholars and the mass media in the wake of the "Golden Venture fiasco" (Chin, 1999; Kwong, 1997; Smith, 1997). In 1990, Fujian Province accounted for 13 percent of the total emigrant population; by 1995 it ranked first in China, accounting for 28 percent of the emigrant population (SSB, 1997; Liang, 2001).

### *DATA AND METHODS*

Data for this research come from Fujian portion of the 1995 China 1% Population Sample Survey. The survey was conducted in October 1995 by the China State Statistical Bureau (SSB, 1997). Various sociodemographic information was collected for each member of respondent households. One of the important characteristics of the 1995 China 1% Sample Survey is that it has information on international migration and housing conditions, thus providing a unique opportunity to examine these issues. Similar to the 1990 Chinese Population Census, the 1995 survey has information on emigration: any household member who emigrated is noted in the survey. In addition, for the first time in the history of Chinese national population surveys, the 1995 China 1% Sample Survey asked questions about housing conditions. Several measures of housing conditions are total square meters of living space, number of rooms, private bathroom, private kitchen, type of cooking fuel, running water, and age of house. Although the 1995 survey is an excellent data source for studying international migration and housing conditions, it is not

without limitations. For example, there is no information about the nature of work units. Previous research shows that the nature of work units (state owned, collectively owned, joint venture enterprises) is very important in the allocation of housing as well as the quality of housing (Bian, 1994; Logan *et al.*, 1999; Zhou and Logan, 1996).

We begin the analysis with the selection of all households in Fujian Province. To get a general description of the emigrant and non-emigrant populations, we first provide a profile of emigrants and non-emigrants in Fujian, focusing on gender, age, marital status, education, place of origin, relationship with household head, and ethnicity. Here we use the individual as the unit of analysis because we are interested only in comparing the basic characteristics of emigrants and non-emigrants. In the remaining portion of the analysis, we use the household as our unit of analysis (unless noted otherwise). We compare the housing conditions for emigrant households and non-emigrant households. All measures of housing conditions mentioned above are used.

Next we conduct multivariate statistical analyses. First, we use the household as the unit of analysis since decisions about building a new house or making home improvements are usually made at the household level. We use area of living space (measured in square meters) as our dependent variable. Our independent variables are gender, age of household head, marital status of household head, household size, education of household head, place of origin, cadre in the household, and emigration status of any household member.

Once we examine the impact of emigration on area of living space (controlling for other household-level characteristics), we move to the next step of multivariate analysis. Here we create a housing condition index – a composite index that covers several dummy variables: private bathroom, private kitchen, running water, and type of cooking fuel (gas versus other). We then estimate ordered probit models to evaluate the impact of emigration on this housing condition composite variable (Long, 1997). The final step in the multivariate analysis will estimate the impact of emigration on living in single- or multiple-story buildings. Here we restrict our analysis to the rural and town samples only because the majority of city residents live in multiple-story buildings. Thus, this measure does not adequately capture the quality of housing conditions in cities.

## RESULTS

### *Descriptive Statistics*

Table 1 gives a general description of the characteristics of emigrants and non-emigrants. This comparison in itself is important, because usually in the study



of Chinese immigration to the United States, all we have is the Chinese immigrants and rarely do we have the opportunity to examine how immigrants are compared with the people who choose to stay. This selection mechanism is critical to understand the assimilation process (Carter and Sutch, 1998). Not surprisingly, males are heavily represented in the emigrant population, accounting for 74 percent of the emigrants. The mean ages for emigrant and non-emigrant populations are very similar, but this actually masks a major difference in age distribution between emigrants and non-emigrants.

Nearly 70 percent of emigrants are in the working age group of 20-34 compared to 27 percent for the non-emigrant population. Although education levels for emigrants are not particularly high, there is a higher proportion who has finished junior high school and high school. Unlike emigrants from other provinces, emigrants from Fujian are much more likely to have come from rural areas than from either cities or towns. Recent studies suggest that a substantially high proportion of emigrants from Fujian are undocumented (Chin, 1999; Liang, 2001).

Table 2 describes housing condition variables by emigration status. Unlike Table 1, here we use the household as the unit of analysis (with the exception of living space, which is calculated per capita). The overall results are that emigrant households have larger living spaces and better facilities when compared to non-emigrant households. Moreover, emigrants' households are more likely to have private kitchens, private bathrooms, running water, larger overall living space, and newer dwellings. The most striking difference between emigrant and non-emigrant households is found in the very high proportion of emigrant households that use propane gas. More than half of the emigrant households use propane gas, compared to only 20 percent among the non-emigrant households. Finally, the size of emigrant households is slightly larger, with an average of about five persons in the household compared to an average of four persons in non-emigrant households. However, of important note is that the presence of a cadre in the emigrant households is one percentage point higher than that of non-emigrant households. This suggests that households with cadres may have an advantage in sending household members abroad. Emigrant households in general have more per capita living space (nearly 2 square meters more) than non-emigrant households.<sup>3</sup> Later analysis shows, however, that there is a significant difference in the

<sup>3</sup>It should be noted that emigrant households in general are larger than non-emigrant households. Our measure of per capita living space takes into account the difference in household size between emigrant and non-emigrant households.

**TABLE 1**  
**SOCIODEMOGRAPHIC CHARACTERISTICS OF EMIGRANTS AND NON-EMIGRANTS,**  
**FUJIAN PROVINCE, 1995**

Variables	Emigrant %	Non-emigrant %
Sex		
Male	74.1	50.79
Female	25.9	49.21
Age		
0-14	0.55	29.59
15-19	8.26	8.2
20-34	68.04	27.43
35+	23.14	34.77
Mean Age	29.21	29.03
Marital Status		
Unmarried	37.95	22.41
Married, spouse present	61.22	68.02
Remarried, spouse present	0.55	1.7
Divorced	0	0.65
Widowed	0.28	6.53
Education		
No formal education	0.28	15.88
Literate	0	3.75
Elementary school	27.42	48.23
Junior high school	47.92	22.42
High school	19.39	7.32
Junior college and above	4.99	1.56
Place of Origin		
City	17.36	14.34
Town	17.08	8.33
Rural	65.56	77.33
Relationship with Head of Household		
Head	28.65	24.52
Spouse	13.5	19.46
Parents and grandparents	1.1	4.24
Son/daughter	46.56	40.53
Son/daughter in law	4.13	3.06
Grandchild	1.93	5.09
Brother/sister	3.86	0.89
Other	0.28	2.22
Ethnicity		
Han	99.72	98.08
Non-Han	0.28	1.92
Total No. in Sample	363	189,563

Source: 1995 China 1% Sample Survey

amount of per capita living space when comparing rural versus urban.

In Table 3, we describe the distribution of housing conditions by type of residence for emigrant and non-emigrant households, illustrating two important points. First, across three categories of city, town, and rural, the most striking and consistent pattern is that emigration generally improves housing conditions through the ability to purchase propane gas for cooking; it is not affected by the household's city or rural status. Once individuals have the money available, they can simply purchase a propane gas tank, which is

**TABLE 2**  
**HOUSEHOLD-LEVEL CHARACTERISTICS OF EMIGRANT AND NON-EMIGRANT**  
**HOUSEHOLDS, FUJIAN PROVINCE, 1995**

Variables	Emigrant %	Non-emigrant %
Private Kitchen		
Yes	93.77	84.31
No	6.23	15.69
Private Bathroom		
Yes	36.14	29.66
No	63.86	70.34
Running Water		
Yes	31.78	25.8
No	68.22	74.2
Type of Cooking Fuel		
Coal	25.55	30.71
Gas	1.87	2.37
Propane	55.45	20.39
Other	17.13	46.54
Living Space Per Capita (in square meters)		
Mean	17.63	15.96
Standard deviation	14.12	13.16
Number of Rooms		
Mean	3.6	2.94
Standard deviation	2.76	26.06
Age of House		
Mean	17.71	24.27
Standard deviation	19.45	26.06
Household Size		
Mean	4.59	4.01
Standard Deviation	1.74	1.66
Cadre in Household		
Yes	7.17	6.22
No	92.83	93.78
Total No. of Households in Sample	321	37,844

Source: 1995 China 1% Sample Survey

not subject to any constraints by housing infrastructure. In contrast, the improvement of using natural gas as cooking fuel is marginal, since whether or not a household uses gas depends almost entirely on the location of the building and whether the building has a gas pipeline. If a building is located in a place far from the gas pipeline, the chances of using natural gas are slim regardless of how much money one has available. Emigrant households are also consistently more likely to have private bathrooms and private kitchens as compared to the non-emigrant households.

However, emigration seems to have a different impact on area of living space and number of rooms for city, town, and rural households. For households with emigrants in rural areas and towns, the per capita living space

**TABLE 3**  
**DISTRIBUTION OF HOUSING CONDITIONS BY TYPE OF RESIDENCE FOR EMIGRANT AND**  
**NON-EMIGRANT HOUSEHOLDS, FUJIAN PROVINCE, 1995**

Variables	City		Town		Rural	
	Emigrant	Non-emigrant	Emigrant	Non-emigrant	Emigrant	Non-emigrant
Private Kitchen						
Yes	92.98	86.15	90.74	80.89	94.76	84.3
No	7.02	13.85	9.26	19.11	5.24	15.7
Private Bathroom						
Yes	49.12	46.49	42.59	30.67	30.95	24.64
No	50.88	53.51	57.41	69.33	69.05	75.36
Running Water						
Yes	94.74	71.76	33.33	56.78	14.29	7.82
No	5.26	28.24	66.67	43.22	85.71	92.18
Type of Cooking Fuel						
Coal	14.04	19.48	33.33	34.74	26.67	33.34
Gas	10.53	11.06	0	0.2	0	0.18
Propane	71.93	42.08	61.11	36.91	49.52	11.61
Other	3.51	27.38	5.56	28.15	23.81	54.86
Living Space Per Capita (in square meters)						
Mean	14.22	14.54	16.53	15.87	20.44	16.32
Standard Dev.	8.89	11.78	11.74	13.64	17.39	13.38
Number of Rooms						
Mean	2.54	2.45	3.31	2.77	3.96	3.1
Standard Dev.	1.13	1.59	2.27	2.52	3.09	2.38
Age of House						
Mean	20.54	22.4	19.48	28.29	16.48	24.24
Standard Dev.	23.68	25.51	21.08	32	17.66	25.16
Type of House						
1 Story	10.53	21.43	7.41	33.45	28.57	49.67
2+ Stories	89.47	78.57	92.59	66.55	71.43	50.33
Total # in Sample	57	7,550	54	3,961	210	26,116

Source: 1995 China 1% Sample Survey

increases by four square meters and one square meter, respectively, for rural and town residents. Because of the increase in overall living space, it is not surprising that emigrant households, on average, have more rooms than non-emigrant households in rural areas and towns. For urban households, however, a different pattern has emerged. Emigrant households in cities have smaller living spaces and almost identical numbers of rooms as compared to non-emigrant households. This can be explained by the fact that in cities it is much more difficult to construct new private houses or to enlarge or enhance existing apartments. As previously mentioned, it was only until very recently that most of the housing in cities had been assigned by work units. The size

of living space is usually dictated by seniority, administrative position of employees, cadre status, and household size, among other factors. China's open estate market is still in its infancy, and purchasing new housing remains the privilege of a few, extremely wealthy people. Therefore, having relatives abroad does not guarantee improvement in overall living space in cities. Emigrant households in rural areas and towns are more likely to be in multiple-story dwellings than non-emigrant households, with the greatest difference found in towns. For city households, though, we have to use caution. Since most of the city residents (*i.e.*, close to 80%) live in multiple-story buildings, the important factor is not whether one lives in a multiple-story building or not, but rather the size of one's living space and relative housing conditions. For this reason, when estimating the impact of emigration on living in a multiple-story home, we use only rural areas and towns in the sample.

### *Multivariate Analysis*

Table 4 reports the results from an OLS regression predicting the size of living space based on household head and household level characteristics. Model 1 includes gender, age, and education of household head. We also include household-level characteristics such as rural/urban origin and whether there is a cadre in the household. Previous work documented that households with cadres enjoy a major advantage in access to housing with sufficient space and high quality. We also control for household size. In Model 2, we include the major variable of our interest, *i.e.*, whether there is an emigrant in the household. To examine how emigration affects city, town, and rural households differently, we introduce two interaction terms in Model 3: an interaction term between emigrant(s) in the household and city households and another interaction between emigrant in the household and town households. We focus our discussion on Model 3. Age of household head, representing seniority, has a significant positive effect on the size of living space. The older the household head, the larger the living space of the household. Although education helps to improve the size of living space, it does not do so in a linear fashion. The biggest education effect is found in whether household head had attained a junior high school level of education. This certainly raises some concerns about the housing conditions of China's most educated people (with education of junior college and above).

Consistent with previous research, the presence of a cadre in the household clearly provides advantages in terms of overall housing allocation. Households with cadres on average have about fourteen square meters more

**TABLE 4**  
**OLS REGRESSION OF THE AREA OF LIVING SPACE ON HOUSEHOLD HEAD AND HOUSEHOLD-LEVEL CHARACTERISTICS**

Independent Variables	Model 1	Model 2	Model 3
<b>Household Head Characteristics</b>			
Gender (ref=female)	-9.83 <sup>a</sup> (.771)	-9.72 <sup>a</sup> (.771)	-9.76 <sup>a</sup> (.771)
Age	.27 <sup>a</sup> (.020)	.27 <sup>a</sup> (.020)	.27 <sup>a</sup> (.020)
Literate (ref=no formal education)	6.10 <sup>a</sup> (1.524)	6.10 <sup>a</sup> (1.524)	6.13 <sup>a</sup> (1.524)
Elementary school	11.68 <sup>a</sup> (.889)	11.62 <sup>a</sup> (.889)	11.64 <sup>a</sup> (.889)
Junior high school	14.89 <sup>a</sup> (1.007)	14.81 <sup>a</sup> (1.007)	14.82 <sup>a</sup> (1.007)
High school	14.46 <sup>a</sup> (1.195)	14.36 <sup>a</sup> (1.195)	14.36 <sup>a</sup> (1.195)
Junior college and above	11.71 <sup>a</sup> (1.933)	11.59 <sup>a</sup> (1.933)	11.66 <sup>a</sup> (1.933)
<b>Household-level characteristics</b>			
Emigrant in household		8.85 <sup>a</sup> (2.783)	14.09 <sup>a</sup> (3.437)
Cadre in household	14.18 <sup>a</sup> (1.132)	14.20 <sup>a</sup> (1.132)	14.19 <sup>a</sup> (1.132)
Household size	10.34 <sup>a</sup> (.160)	10.32 <sup>a</sup> (.160)	10.32 <sup>a</sup> (.160)
Town origin (ref=rural)	-7.19 <sup>a</sup> (.855)	-7.23 <sup>a</sup> (.855)	-7.13 <sup>a</sup> (.861)
City origin (ref=rural)	-15.36 <sup>a</sup> (.705)	-15.35 <sup>a</sup> (.704)	-15.20 <sup>a</sup> (.706)
<b>Interaction Terms</b>			
(Emigrant in household) * City			-20.58 <sup>a</sup> (7.433)
(Emigrant in household) * Town			-9.48 (7.611)
Intercept	10.91 (1.517)	10.91 (1.517)	10.86 (1.517)
R <sup>2</sup>	.1326	.1328	.1330
Total number of households	37,947	37,947	37,947

Source: 1995 China 1% Sample Survey

Notes: Standard errors are in parentheses.

<sup>a</sup>p<.05.

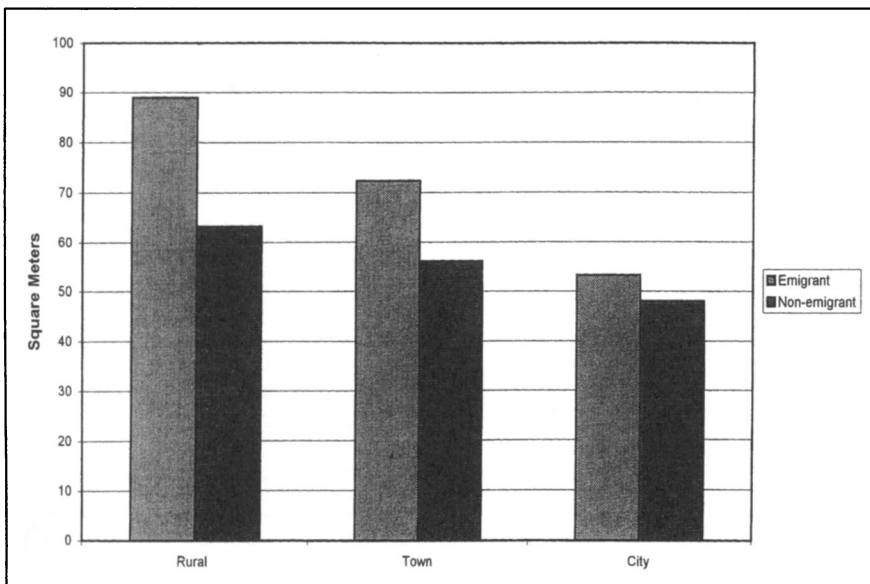
living space than household with no cadres, other things being equal.<sup>4</sup> Despite the transition to a market-oriented economy since 1978, cadres continue to enjoy the privilege of a relatively large living space, an indication of the continuity of China's old social stratification order. Turning to the coefficient for emigrant status, we see that emigrant households are also more likely to enjoy a larger living space when compared to non-emigrant households.

<sup>4</sup>The cadre variable is created based on detailed occupation codes. The codes cover approximately 900 occupations. We define cadres as people with reported occupations of positional power, such as party leaders in work units, military or other organizations.

This suggests that emigrants must spend a portion of remittances on housing.

Turning to the interaction terms, we see that the statistically significant coefficients for the interaction terms show that emigration indeed affects city, town, and rural households differently with regard to living space. Having an emigrant in the household in cities or towns does not increase living space as much as it does for rural households. To determine the magnitude of this difference, in Figure I we graphed the predicted living space (in square meters) for all households. The following assumptions are made to generate the predicted numbers: male household head with elementary school education, and no cadre in the household. Age and household size are set to equal the statistical means of each variable. Under these assumptions, having emigrant(s) in

**Figure I. Predicted Size of Living Space by Rural/Urban Origin and Emigrant Status**



rural households increases living space by more than twenty square meters. In contrast, having emigrant(s) in city households increases living space by only a few square meters.

In Table 5, using ordered probit models, we estimated the effects of emigration on an index of housing conditions. The index is constructed based on four dummy variables: private kitchen (1=yes, 0=no), private bathroom

**TABLE 5**  
**REGRESSION OF THE INDEX OF HOUSING CONDITIONS ON HOUSEHOLD HEAD AND HOUSEHOLD-LEVEL**  
**CHARACTERISTICS (ORDERED PROBIT MODEL)**

Independent Variables	Model 1	Model 2	Model 3
<b>Household Head Characteristics</b>			
Gender (ref=female)	-.21 <sup>a</sup> (.014)	-.20 <sup>a</sup> (.014)	-.20 <sup>a</sup> (.014)
Age	.004 <sup>a</sup> (.000)	.004 <sup>a</sup> (.000)	.004 <sup>a</sup> (.000)
Literate	.17 <sup>a</sup> (.028)	.17 <sup>a</sup> (.027)	.17 <sup>a</sup> (.275)
Elementary school	.22 <sup>a</sup> (.016)	.22 <sup>a</sup> (.016)	.22 <sup>a</sup> (.016)
Junior high school	.43 <sup>a</sup> (.018)	.42 <sup>a</sup> (.018)	.42 <sup>a</sup> (.018)
High school	.70 <sup>a</sup> (.022)	.69 <sup>a</sup> (.022)	.69 <sup>a</sup> (.022)
Junior college and above	1.31 <sup>a</sup> (.035)	1.31 <sup>a</sup> (.035)	1.31 <sup>a</sup> (.035)
<b>Household-level characteristics</b>			
Emigrant in household		.45 <sup>a</sup> (.050)	.50 <sup>a</sup> (.062)
Cadre in household	.65 <sup>a</sup> (.020)	.66 <sup>a</sup> (.020)	.66 <sup>a</sup> (.020)
Household size	.05 <sup>a</sup> (.003)	.05 <sup>a</sup> (.003)	.05 <sup>a</sup> (.003)
Town origin (ref=rural)	.62 <sup>a</sup> (.015)	.62 <sup>a</sup> (.015)	.63 <sup>a</sup> (.016)
City origin (ref=rural)	1.02 <sup>a</sup> (.013)	1.02 <sup>a</sup> (.013)	1.02 <sup>a</sup> (.013)
<b>Interaction Terms</b>			
(Emigrant in household) * City			-.05 (.134)
(Emigrant in household) * Town			-.30 <sup>a</sup> (.137)
Intercept	.79 (.027)	.79 (.027)	.79 (.027)
R <sup>2</sup>	.3192	.3206	.3207
Total Number of Households	37,947	37,947	37,947

Source: 1995 China 1% Sample Survey

Note: Standard errors are in parentheses.

<sup>a</sup>p<.05.

(1=yes, 0=no), running water (1=yes, 0=no), using either piped gas or propane gas (1=yes, 0=no). The index is the sum of the above four variables. Thus, a larger value on this index indicates better housing conditions.

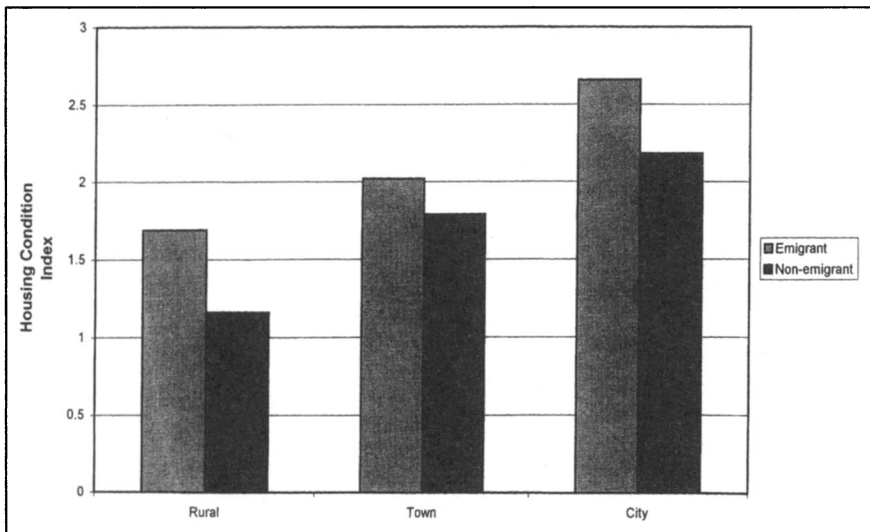
Again, we sequentially estimated three ordered probit models, and the last model (Model 3) includes two interaction terms. Households with cadres still are more likely to live in places with better housing conditions than otherwise. Again, emigrant households have better access to good housing conditions. Although education does not increase living space in a linear fashion,



the story is different for the model predicting the index of living conditions. With a rise in the level of education attained by household heads, housing conditions improve steadily as well.

In Figure II, we also calculated the predicted index of housing conditions, using the same assumptions as in Figure I. Housing conditions in general (regardless of rural or urban status) range from poor in rural to good in cities. This means that, among the non-emigrant households, city households enjoy a superior advantage in housing conditions compared to rural and town households. Although the magnitude in the improvement of housing conditions is similar for rural and city households, the relative contribution to rural

**Figure II. Predicted Index of Housing Conditions by Rural/Urban Origin and Emigrant Status**



households seems to be particularly pronounced in comparison with city households given the relatively better housing conditions of city households to begin with.

Next, we estimated the effect of emigration on the probability of living in a two-story or more building. Given the fact that the majority of residents in cities (80%) live in multiple-story buildings, it is not relevant to include it in the context of cities. We therefore restrict our analysis to households in rural areas and towns. With the progression of education level of the household head, the probability of living in multiple-story housing increases.

**TABLE 6**  
**LOGISTIC REGRESSION PREDICTING THE PROBABILITY OF LIVING IN MULTIPLE-STORY HOMES FOR**  
**TOWN AND RURAL HOUSEHOLDS**

Independent Variables	Model 1	Model 2
<b>Household Head Characteristics</b>		
Gender (ref=female)	-.14 <sup>a</sup> (.037)	-.13 <sup>a</sup> (.037)
Age	.001 (.001)	.002 (.001)
Literate (ref=no formal education)	.01 (.067)	.02 (.067)
Elementary school	.19 <sup>a</sup> (.040)	.18 <sup>a</sup> (.040)
Junior high school	.38 <sup>a</sup> (.046)	.37 <sup>a</sup> (.046)
High school	.73 <sup>a</sup> (.059)	.72 <sup>a</sup> (.059)
Junior college and above	1.55 <sup>a</sup> (.211)	1.55 <sup>a</sup> (.211)
<b>Household-Level Characteristics</b>		
Emigrant in household		.92 <sup>a</sup> (.146)
Cadre in household	.58 <sup>a</sup> (.072)	.58 <sup>a</sup> (.072)
Household size	.06 <sup>a</sup> (.007)	.06 <sup>a</sup> (.007)
Town origin (ref=rural)	.58 <sup>a</sup> (.037)	.57 <sup>a</sup> (.037)
Intercept	-.44 (.069)	-.44 (.069)
Total Number of Households	30,341	30,341

Source: 1995 China 1% Sample Survey

Note: Standard errors are in parentheses.

<sup>a</sup>p<.05.

Cadres continue to enjoy the advantage of living in multiple-story buildings. Again, emigrant households are more likely to live in multiple-story houses compared to non-emigrant households.

Across Tables 4-6, we find that female-headed households are actually more likely to live in houses with better housing conditions and larger spaces, a finding that is somewhat unexpected.<sup>5</sup> A further examination of these female-headed households suggests that a large number of these have husbands who are internal migrants in China. It is possible that households with internal migrants have more disposable income to be used for housing.

<sup>5</sup>We note that studies by Knight and Song, 1994, and Logan *et al.*, 1999, also suggest that there is a housing advantage among households headed by females. However, in most cases, their results are not statistically significant.

## CONCLUSION AND DISCUSSION

Through a careful empirical analysis of the impact of emigration on housing conditions in Fujian Province, we provide some initial support for the argument that emigration indeed improves housing conditions with regard to several aspects in particular: increasing living space and providing increased access to good quality housing. These findings are consistent with other studies done in different parts of the world (Taylor *et al.*, 1996a,b). Moreover, our research contributes to the debate on impact of international migration on sending communities in additional ways.

First, previous research focused mainly on agrarian communities and examined how international migration changed the social and economic conditions in the sending communities. Our research shows that these patterns change somewhat when we examine housing improvement separately for rural areas, towns, and cities. In Fujian Province, we find that international migration affects urban and rural communities differently because of the current institutional arrangement and constraints. In rural communities, remittances can be readily used to build new and often larger multiple-story housing with amenities such as private bathrooms and kitchens. In cities, however, the situation is quite different. Having emigrant(s) in the household does not guarantee a larger living space because very often apartments in cities are allocated through work units (companies), and there is little opportunity for increasing the living space. Therefore, the impact of international migration on housing conditions in cities is primarily reflected in additional amenities like private bathrooms and purchase of propane gas, etc. within the existing house or apartment.

Second, and perhaps more importantly, our study shows that international migration provides an alternative channel to achieve success and thus challenges the existing order of social stratification in China. For a long time, access to housing with adequate space and quality in urban China represented a privilege reserved for cadres and people with administrative power. That means that even for individuals with high levels of education, having access to housing with sufficient space and quality was difficult. It was not uncommon to see intellectuals and educators in China living in crowded apartments and having to share kitchens and bathrooms with others. Evidence presented in this study suggests that international migration has begun to change this: instead of pursuing a career as a cadre working for the government, individuals can improve housing conditions if households are able to send some of their members abroad. In most cases, the magnitude of the impact of emigration on housing condition is similar to that of having a party member in the household. In our model predicting the probability of living in a multi-

story building, the size of the coefficient households with emigrants is even larger than that of households with party members. Notwithstanding that having a cadre in the family continues to play an important role in gaining access to good housing, international migration indeed has begun to reduce the importance of this old stratification order in Chinese society, particularly in communities where a large number of emigrant households reside.

The current research represents one of the first steps toward understanding international migration and development in China in the era of transition from a centrally-planned to a market-oriented economy. Admittedly, we are still in the early stages of this enterprise. The prevalent view of the existing literature on international migration and development paints a rather pessimistic picture of the role of international migration in development. Recent research by Massey and Parrado (1998), among others, has begun to revisit this old debate and has identified innovative ways of examining the impact of international migration on community and national development. To date, these avenues have not been fully explored in transitional economies such as China. We argue that it is a particularly good time to consider China at this juncture because the rise of international migration in China provides a unique opportunity to do so. Adding China to the literature is also theoretically important in that it enters uncharted waters of international migration in a transitional economy. It is possible that the nature of the change and continuity in Chinese society may alter the interplay between international migration and development in migrant-sending communities in ways that have not been observed or expected in free market economies.

Guided by recent research on international migration and development, future research should focus on the impact of emigration on community development in greater detail and with an increased level of sophistication. Although investment in housing is not normally considered productive, there is an indirect effect on the local economy as a result of intensive housing investment. This is in response to the call by Taylor *et al.* that researchers should pay more attention to “indirect effects of emigration on local economies through consumer demand or investment” (Taylor *et al.*, 1996a:398). For example, recent field trips to Fujian by the senior author suggested that there is a set of emerging businesses that are related to the home construction and the home improvement boom, particularly construction companies, remodeling specialists, and supply stores for various equipment (such as pipes, bathtubs, etc.). Quantifying this indirect impact of emigration on local economies and employment warrants future research.

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