REGISTRATION STATUS, LABOR MIGRATION, AND SOCIOECONOMIC ATTAINMENT IN CHINA'S SEGMENTED LABOR MARKETS[?]

Xiaogang Wu
Division of Social Science
Hong Kong University of Science and Technology
Clear Water Bay, Kowloon
Hong Kong

(Work in Progress)

[?] Direct all correspondence to Dr. Xiaogang Wu (email: sowu@ust.hk), Division of Social Science, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon. Hong Kong. Comments are welcome. The data collection was supported by grants from the National Science Foundation (SBR-9423453), the Luce Foundation, the Ford Foundation, and the University of California Pacific Rim Program. I thank Donald Treiman and Andrew G. Walder for making the data available to me. The writing was supported by a postdoctoral fellowship at PSC from the Andrew W. Mellon Foundation.

REGISTRATION STATUS, LABOR MIGRATION, AND SOCIOECONOMIC ATTAINMENT IN CHINA'S SEGMENTED LABOR MARKETS

Abstract

Since 1955 the Chinese household registration system (*hukou*) has been used as the main tool to restrict rural-urban migration and allocating socialist benefits to urbanites. During the economic reform, while the system has become less effective, it continues to play a critical role in drawing segment boundary in China's emerging labor markets. This paper examines the rural-urban labor migration process and migrants' socioeconomic achievement in such segmented labor markets. Analyses of data from a national representative survey shows that migrant workers' labor market experience is similar to that of local non-farm workers, but different from that of urban workers. Compared to their peers staying in villages, migrants may be economically better off, yet due to the lack of local urban *hukou* registration, they are segregated from permanent urban residents and thus far from achieving socioeconomic parity. People of rural origins who have changed *hukou* status, on the other hand, enjoying full entitlements, have been integrated in the urban labor market. *Hukou* change makes a great difference in labor market outcomes.

INTRODUCTION

Labor allocation in the pre-reform urban China was implemented mainly through the work-unit (*danwei*) system. Under this unique Chinese socioeconomic system, the government comprehensively controlled all work organizations (*dan wei*), including labor recruitment. Workers were assigned to work units by government labor/personnel bureaus; the employment was permanent; labor mobility was restricted, and must be approved by government agencies (Bian 1994; Naughton 1997; Walder 1986; Wang 1998).

Whereas individual initiatives might have been suppressed by such a bureaucratic system, socialist workers in urban China were rewarded with a great job security ("iron rice bowl"), a relatively egalitarian payment, a variety of welfare benefits, including pension, medicare, housing, as well as other in-kinds goods and social services. These public goods and service were delivered primarily through work units (Bian 1994:189-217; Walder 1992; Whyte and Parish 1984:85-90). In addition, the party's political activities were also organized via work units (Walder 1986:28-30). People not only worked, but also lived and socialized within the units. A dependence relationship between workers and their work units was thus formed (Lee 1999; Walder 1986; Wu 1995; 2001). In sharp contrast to the urban massive layoffs and rising income inequality nowadays, Mao's socialist China could be seen as a "paradise" of urban workers.

However, the lifetime employment and welfare benefits afforded by socialist work units have never been the rights of all Chinese citizens, but only the privileges of urban residents, who accounted for only one-fourth of the national population. Indeed, the paradise of workers' state was built upon the exploitation of the agricultural sector and deprivation of life chances for the rural majority. To accumulate capital for the development of capital-intensive heavy industry, the government forcibly induced unequal exchange between agriculture and industry (so-called

"scissors gap" or *jiandao cha*), taking the surplus from the agriculture to finance the industrialization programs (Lardy 1983).[1] To restrict the work-unit benefits to certain population groups and curb the influx of rural laborers into cities, the government installed the household registration system (*hukou*) in the later 1950s, under which all Chinese households were classified into "agricultural" and "non-agricultural" registration status.[2] An invisible "wall" was set up between rural and urban China since then. Rural residents were entitled to essentially no socialist benefits (Chan 1994; Wu 2001).

The effectiveness of the *hukou* system in restricting labor/population migration relied on two administrative systems (Wu and Treiman 2002). On the rural side, the commune system enabled local governments to tie peasants to the land. All adults had to participate in agricultural production to receive food rations for their households (Parish and Whyte 1978), and migration was generally prohibited except with the permission of the local government. On the urban side, the *danwei* organizations administered most social services for their employees. Without a work unit, it was very difficult to survive in a city, since housing, food, and other social services were unavailable through the market. Moreover, because employment quotas in all urban work units were tightly controlled by the government labor administration (Li and Wang 1992; Walder 1986), rural residents willing to risk losing food rations by leaving their villages would have little

[1] By selling overpriced industrial products and buying under-priced agricultural produce, the state was able to reap a huge profit of about 20 to 30 billion RMB Yuan in 1978 (Chan 1994:69), or 714 billion RMB Yuan from 1952 to 1989 in total (Yang and Zhou 1999:107).

[2] According to *hukou* regulations, there are two classifications in the Chinese household registration. The first is the *place* of registration (*hukou suzaidi*), based on one's residential location. The second is the *type* of registration (*hukou leibie*), generally referred to as "agricultural" and "non-agricultural" *hukou*, or "rural" and "urban" *hukou* (Chan and Zhang 1999, pp. 821-22). It is the latter that created a pronounced distinction in socioeconomic entitlements among Chinese citizens and significantly shaped the labor allocation process, although place of registration also affects life chances to a certain extent.

chance of getting an urban job. This tight administrative control on both sides virtually eliminated unauthorized rural-to-urban labor migration in the pre-reform era.

Hence, with the help of the household registration system that confined most of the population in the rural area, the urban employment system could be maintained. The tight employment system based on work units, on the other hand, reinforced the effectiveness of the *hukou* system, creating two unequal and segregated classes of citizens in a socialist society. The two systems were intertwined, providing an institutional basis to cope with the oversupply labor force under China's rapid socialist-style industrialization (Wu 2001).[3]

Such important institutional configurations of labor allocation are not dissolved overnight during the economic reform. Instead, they still remain in place and continue to shape the structure of the newly emerging labor markets, the pattern of labor mobility, as well as workers' socioeconomic outcomes (Wang, Zuo and Ruan 2001).

MARKET REFORM AND THE DEVELOPMENT OF SEGMENTED LABOR MARKETS

Economic reform during the past two decades has substantially relaxed the administrative control of labor via the *hukou* registration system and the work unit system. On the rural side, starting in 1978, the household responsibility system replaced the commune system as the major form of agricultural production. Peasants signed contracted with the local government to deliver a fixed

[3] Indeed, Chinese government used to the *hukou* system and the rural-urban divide to regulate the urban labor pool. After the Great Leap Forward, about 18 million urban workers were sent back to their home villages (Chan 1994:39). To help reduce both urban unemployment and school crowding, more than 20 million university and middle school students from urban areas were sent down to rural and border regions during the Cultural Revolution (1966-1976) (Bernstein 1977).

quota of grain in exchanging for farming on a household basis; as a result, they gained freedom to their labor and no longer need to report to the collective for daily work. The release of surplus labor tied to the land helped create a rural labor market and drive the spectacular growth of rural non-agricultural sectors, largely constituted by local township and village-owned enterprises (TVEs) (Oi 1990), and later by more private enterprises (Peng 2001). The employment size of rural industry reached 128,195, 000 in 2000 (Cai 2002: 66). Most of TVEs employees were recruited from local peasants, who worked as both part-time wage earners and part-time farmers ("leaving the land but not leaving the township").

From its inception, the rural non-farm employment has been truly market-oriented, wage determination in the rural public sector is found similar to that in the rural private sector, but quite different from that in the urban public sector (Peng 1992). Unlike urban workers, peasant-workers are not entitled to job security and welfare benefits such as housing, pension and medicare plans, thus offer sufficient cheaper labor to rural industrialization. During economic recession, they can be easily let go and return to farm, regardless whether they are employed in the public or private sectors. Local governments have no responsibility to create jobs for them. They are not counted in government unemployment statistics (Solinger 2001).

On the urban side, the economic reform has brought about two outcomes that fundamentally alter the Chinese urban social space that used to be tightly organized. The first was the emergence of a new market-oriented economy. Self-employment and private economic activities had been ideologically legitimized as integral parts of socialism since 1982. Meanwhile, an open-door policy attracted large volumes of foreign investment (Zhong 1990). As the free market sector becomes an alternative provider of resources and life chances outside the public sector, bureaucratic coordination has lost its importance. The second outcome was that,

even work units in the public sector also obtained some decision-making power from the government. Though significant changes had not yet occurred, the incremental decentralization policy enabled enterprises to evolve into entities with relative autonomy, including the power to hire employees at their own discretion (Sun, Wang, and *et al.*1993; Wu 2002a).

However, not until the 1990s social and political concerns have limited the scope and effectiveness of creating a functioning labor market for urban formal employees affiliated with work units. Without a universal social security system work units could not fire unqualified employees, even though they literally had such power. Without a universal social security system it was also risky for an employee to leave a work unit and look for another opportunity in the new market sector.[4] Thus the initial development of labor markets in urban China was largely driven by laborers outside the urban formal employment system (Wu and Xie 2003; Wu 2002b). For example, to enhance the development of the urban service sector, since 1983, the government had allowed peasants to enter cities and establish small urban businesses such as shoe-repair shops, barbershops, and restaurants (Li 1993:110). Furthermore, millions of young peasants from rural areas were hired in the growing market sector outside the redistributive system, due to the low cost. Even state-owned work units preferred to hire rural workers either because the units had no commitment to housing and other social benefits for these peasant-workers, or because the jobs were unattractive to urban workers (Cai 2002:217).

As a result, the release of surplus rural laborers from the land in rural reform and the emergence of a free social space in urban reform have triggered a massive labor migration in

[4] Indeed, in the late 1980s and early 1990s, due to the lack of true labor markets and a universal social security system outside work units, the economic reform, ironically, strengthened the relationship between employees and their work units. The decentralization policy did significantly increase the volume of resources under the control of the units. Using these resources work units endeavored to upgrade employees' living standards by paying them directly in the form of bonuses, or spending on collective living facilities (Naughton 1997).

China. Geographic mobility has been much easier than before. Since the late 1990s, out-migration to cities has prevailed over local employment in TVEs, and become the major feature of China's rural labor allocation (Cai 2002:70; Rawski 2002). The government's bureaucratic control over population migration and labor mobility is waning rapidly.

However, the household registration system still persists, albeit losing its effectiveness to some extent. This has led to a disparity between people's residence and registration place in the reform era. Based on the data from a national probability sample survey conducted in 1996,[5] Table 1 shows that about 5 percent of rural registrants have been able to reside in cities, constituting 12.3 percent of the urban population. This figure is even higher in the coastal cities. Inter-provincial migrants account for 1/5 to 1/4 of the urban population in Beijing and Shanghai (National Bureau of Statistics 2002).

While the *hukou* has lost its effectiveness in controlling spatial migration, it continues to be used as the main criterion to allocate government subsidies, welfare, and employment opportunities to local permanent urban residents. Only temporary, undesirable, and menial jobs are open to migrants. Most government services are not available to them: they need to pay extra fee to go to hospital, to rent an apartment, to have their children attend local schools (Cai 2002:215). Moreover, many city governments often instituted a set of local regulations requiring migrants of several documents (3 certificates and 1 card) for their stay to be considered legal.[6]

[5] For details, see the next section.

[6]. They include an identification certificate (*shenfen zheng*) and a temporary resident certificate (*zanzhu zheng*) issued by local police departments in originating counties and destination cities, and an employment certificate (*jiuye zheng*) and an employment card (*jiu ye ka*) issued by labor bureaus of originating counties and destination cities, respectively.

For those documents, on average, a migrant worker was charged about 223 Yuan in 1995 (Zhao 1999:777).

Since the *hukou* is used as the main basis for exclusion, employees with rural *hukou* status, regardless of their occupations, are classified as "*peasant*-workers" (*ming gong*), a synonym of underclass, who are not entitled to labor rights and benefits and subject to severe discrimination (Solinger 1999). As Chan (1994:135) asserts: "Chinese reform socialism has created, structurally, a sizable 'second class' of urban citizens without permanent urban household registration status. This informal segment of urban labor and population is an extension of the rural segment, which was largely bottled up in the countryside under Mao." The large-scale migration from rural to urban areas in the reform-era has not dismantled the socialist segregation policy set by the household registration system. Instead, it has made the long existing inequality and social injustice more visible.

While market forces have increasingly penetrated the process of labor allocation in transitional China, the development of urban labor markets are not only shaped by the public-private duality based on the urban work-unit system, but also constrained by the urban-rural divide based on the registration status. A nationwide labor market is far from being developed.

ISSUES ON LABOR MIGRATION AND THE HOUSEHOLD REGISTRATION SYSTEM

After setting up the broad context, now I turn to analyze rural-urban migration in the process of labor allocation in China, with a particular reference to the role played by the household registration system. Figure 1 plots China's labor market structure and labor migration process. Prior to entering the labor force, all young (potential) workers are categorized into two categories

based on their *hukou* status, which is inherited from their parents. A portion of rural residents could change *hukou* status through their own efforts, such as receiving high education, recruitment by urban work units (Wu and Treiman 2002). The majority would stay as rural *hukou* registrants. However, as the government control on spatial migration is loosening during the market reform, even without changing *hukou* registration, rural residents are able to move to the place other than where their *hukou* is registered. They could move into cities, where there is a social space for them to live; they could move to other villages in the regions, where rural TVEs are relatively more developed (for their experience, see Yao 2001). Of course, the majority tend to stay in their home villages; but even so, some of them would be able to locate a job in local TVEs sector and become non-farm wage earners; the rest would stay as farmers in the agricultural sector.

Literally, rural labor migration also includes migration within rural areas, yet the main thrust of the internal migration is from rural to urban areas. Figure 2 shows that in the 5 selected provinces, the majority of migrants reside in cities/towns.[7] Since the main purpose of this paper is to assess the role of the household registration system in Chinese labor migration, hereafter I ignore the discussion of migration with rural areas, and focus on comparing and contrasting among several different rural-urban migration regimes. In addition, most residents of urban origin would be able to maintain their *hukou* status, and downward mobility to rural residents is too rare to be considered here.

Previous studies on China's internal migration issues have paid much attention to the migrant workers in urban settings, but lost the broad picture of the labor market structure. Empirical analyses are limited to either selected originating villages or destination cities, but not

[7] Even though with the same rural *hukou* type, migrant workers may still be subject to economic discrimination and social exclusion to some extent (Yao 2001).

both, probably due to the difficulties and costs associated data collection. On the rural side, the villages are not drawn randomly (e.g. Zhao 1999), and in some cases village-level analysis is substituted for individual-level analysis, thus conclusions may be subject to "ecological fallacy" (e.g. Rozelle *et al.* 1999; for the discussion on this issue, see Robinson 1950). In the urban side, as migrant workers are often sampled within selected enterprises, whether migrant workers' difficulty in cities is due their individual characteristics or unobserved characteristics of work unit clusters is unknown (e.g. Knight, Song and Jia 1999b; Maurer-Fazio and Dinh 2002).

An important issue closely related to the research design deficiency is, to whom the migrant workers are compared? Economists and sociologists are particularly interested in assessing migrants' disadvantages in income and rewards to human capital investment. Without a broad framework, many issues are hard to pin down. For instance, some scholars found migrant workers earn significantly lower than local urban workers (Knight, Song, and Jia 1999b; Wang and Zuo 1998), whereas others pointed out that the average earnings of migrants is among the highest (Yang and Chan 2000; Maurer-Fazio and Dinh 2002). With respect to migrants' education background, Ma and Liaw (1994) reported strong education selectivity in internal migration, but other researchers found that education has either small or insignificant effect on rural-urban spontaneous migration (Mallee 1996; Meng 1996; Rozelle et. al. 1999). Moreover, Zhao (1999) revealed a negative education selection to out-migration versus local non-farm work. One could not talk about migrants only, unless the reference group to which they are compared in the labor market is specified.

In this paper, I analyze the data from the survey of *Life Histories and Social Change in Contemporary China* (1996), a multi-stage stratified national probability sample of 6,090 adults aged 20-69 from all regions of China (except Tibet). The sample was stratified by dividing each

county into rural and urban portions, with the urban population sampled at three times the rate of the rural population. Within the rural sample, counties were divided into 25 strata on the basis of the proportion of the rural population with at least a middle school education. Two counties (*xian*) were chosen randomly from each stratum with probability proportionate to the size of the adult population (PPS); within each county, one township (*xiang*) was chosen PPS; within townships, two villages (*cun*) were chosen PPS; within villages, 30 households were chosen randomly from the permanent and temporary *hukou* lists; and within households, one adult was chosen randomly; this procedure yielded 3,003 cases. The urban sample was selected in the same way, with the stages comprised of counties or county-level units (county-level cities and districts of larger cities), "street committees," and "neighborhood committees," yielding 3,087 cases; see Treiman (1998:Appendix D) for details. The descriptive statistics for the variables included on the following analyses are presented in Appendix Table A.

Whereas the survey was not designed specifically for migration studies, it contains rich information on respondents' residential history, registration status, and occupation history, and family background. The national probability sample of the Chinese population could essentially overcome the problems pointed out in current migration studies, in the sense that it enables me to examine the whole process of rural-urban labor migration, and compare migrant workers to different groups in both rural and urban labor markets[8]

Because the survey research design necessitated clustering the sample within 100 city districts/counties (see details in Treiman 1998), an adjustment on standard errors is needed in

[8] Since the population of Tibet is so small that it is extremely unlikely that any Tibetan county would have been selected even if they had been included in the population. China 2000 census data include a long-form questionnaire on migration history for 9.6 percent of national population. Some in-depth analyses of the data are hoped to come out.

statistical analyses. All the models reported were estimated using Stata 7.0, with robust standard errors to correct the clustering on sampling units (districts/counties) (Stata Corp. 2001). The data were weighted to represent the Chinese general population.

My unit of analysis in this paper is individuals, although rural households could be the decision-making unit in rural labor allocation. Particular attention is paid to the role of human capital (education) and political capital (party membership) in the process, which, as we know, are both important in socioeconomic attainment in the Chinese context.

In the following I proceed the analyses of urban China's migrant workers in the framework outlined in Figure 1, I first contrast between the patterns of *hukou* mobility and spatial migration, then examine the determinants of out-migration to urban areas over farm work and non-farm work in rural areas. After that, I shift to investigate the labor market outcomes for migrants, compared to both those who stay in rural areas and urban workers, focusing on the role of *hukou* status in the construction of the segmented labor markets. Finally, I summarize the empirical findings and discuss the implications for understanding China's labor market in transition, and its possible changes in the future.

ANALYSES

1. Spatial Migration Versus *Hukou* Mobility

As indicated in Figure 1, the rural-urban population migration comprises two parts. The formal migration is sponsored by the government, with the change of both residence and *hukou* type. The informal migration is temporary and spontaneous, with rural *hukou* status kept in the original place. Although the massive spontaneous migration occurs only during the market reform, government-sponsored migration, i.e., *hukou* mobility, has been existing long before the

reform era. Indeed, according to the survey, 11 percent of people who held rural *hukou* at age 14 had successfully obtained urban *hukou* and moved into cities, who constituted 35 percent of the urban permanent residents.

In Table 2 I present the models of determination of two migration regimes for those who held rural *hukou* and resided in a village at the age of 14. Education, party membership, gender, age and family background when respondent was at age 14 are included as independent variables. If the respondent has ever moved since age 14 (including both migration to urban areas and migration to rural areas), s/he is coded as migrants. In Model 1, I exclude the *hukou* switchers among migrants, and estimate a logit model on spatial migration. Women are more likely to move than men, probably due to that fact that women often migrate via marriage. Except for gender, none of the other variables seems to have significant effect. In particular, the effect of education on spatial migration is not significant.

Nevertheless, for those people experiencing *hukou* mobility since age 14, the selection pattern appears to be different. Education is a strong predictor of *hukou* switch, or government-sponsored migration. An additional year of education increases the odds of changing *hukou* by 39.1 per cent ($=e^{0.330}-1$), other things being equal. Party members are also more likely than non-party members to obtain urban *hukou* status. The net odds for a party member to change *hukou* status are 3.3 times ($=e^{1.193}$) as high as those for a non-party member. Through the household registration system, the Chinese communist regime has created two unequal classes of citizens, with educational and political credentials as two major selection criteria (Chan 1994; Wu and Treiman 2002). It is in this sense that *hukou* mobility can be seen as a form of social mobility, through which the best and bright rural people are selected to move into cities. Spatial migration,

on the other hand, seems to have no definite pattern with respect to individual characteristics such as education, gender, age, and party membership status.

These two different migration regimes are coexisting and interacting with each other, and each must be understood with reference to the other in regards to the role of state and market, selection mechanisms, and social consequences.

2. Out-Migration Decision

Among the majority of rural residents unable to change *hukou* status through education or political tracks, or marriage, or taking advantages of family connections, in the pre-reform era, most of them worked in the agricultural sector. During the economic reform, more opportunities have become available. Particularly, the development of local rural TVEs afforded a lot of non-farm employment opportunities. Meanwhile, the urban reform has also created a free social space for peasant migrants, where they can find jobs and survive. Hence, the local industrial sector and the urban sector are two competing destinations for rural surplus labor. Who stay and who move? Will the urban sector be able attract most productive/capable workers and thereby cause the brain drain to the rural sector?

To answer these questions, in Table 3 I present multinomial logistic regression estimation on local non-farm employment, out-migration versus local farm work (migration within rural areas are not considered here, see footnote 7). Results show that party members are more likely to be engaged in local non-farm employment than non-party members, but they do not differ in the probability of out-migration into cities. This result is not surprising, since rural TVEs are mainly controlled by village cadres and party members; but in cities, they are all seen as peasant

migrants due to the lack of local urban *hukou*, regardless of their political background. The rural political elite members tend to stay and find jobs in the local non-farm sector.

Better-educated people seem more likely to find non-agricultural jobs, either in local rural industry or in city. An additional year of schooling increases the odds of being local wage-earners by 18.6 per cent ($=e^{0.171}-1$), and the odds of out-migration by 14.6 per cent ($=e^{0.136}-1$), other things being equal. This is consistent to the education selectivity effect on migration reported by Ma and Liaw (1994), but the effect is not as strong as that on local non-farm employment. In other words, among all rural residents, the best-educated people tend to stay, should local non-farm employment opportunities be available to them. Rural laborers prefer local non-farm work to out-migration, whereas the local farm work was the least desired choice (see similar findings in Yao 1997; Zhao 1999:774).

One possible explanation is that local non-farm workers earn higher than migrant worker in cities, thus better educated people are attracted to stay. However, this claim can be quickly dismissed, since the average monthly salary is 590 Yuan for migrant workers, 50 per cent higher than the average monthly salary for local non-farm workers (392 Yuan). Despite the disparity, better-educated workers choose to stay in local non-farm sectors due to various reasons. The first may be associated with migration cost. Although my survey data do not contain measures of migration cost, an estimate by Zhao (1999) put the average of the transportation cost and government fee charge around 721.7 Yuan per year for every migrant worker (1995). Second, the living cost is much higher in cities than in villages, where they do not spend much cash income on food and rent. Moreover, discrimination against peasant migrations in cities and the associated social/psychic pressure also deter rural workers with human capital and political capital from out-migration. A typical example is that, most migrants are not able to bring

families with them (Lu 2002: 83). All these factors may offset the attractiveness of urban employment for migrant workers.

In Table 4 I compare the characteristics among local non-farm workers, urban migrant workers, and urban workers with permanent *hukou* status. As seen, the average schooling is 8.2 years for local non-farm workers, 7.5 years for migrant workers and 9.7 years for urban workers. Both local non-farm workers and migrant workers are relatively younger than urban workers; and the percentages of party members are about the same among rural non-farm workers and migrant workers, both significantly lower than the percentage of party members among urban workers. More notably, in terms of sectoral distribution, migrant workers are more likely to be hired by private firms, and local non-farm workers are evenly distributed in the state, collective and private firms, suggesting that the sectoral segmentation may be a problem in urban China, but not in rural China. Regarding occupational distribution,[9] migrant workers are concentrated more in lower-status jobs even than local non-farm workers: 26.6 percent of the latter could find a white-collar job, while only 15.8 percent of migrants could do so in cities, where there supposed to be much more white-collar jobs. This probably is another reason why the best-educated rural laborers prefer local non-farm work to out-migration.

3. Earnings Determination in the Segmented Labor Markets

Income earned from a job is one of the important labor market outcomes. Here I do not include income other than regular wages and bonus of employed workers, whose labor price is

[9] I code all occupations into three categories: 1=workers; 2=ordinary staff; 3=middle rank manager/professional or above. The second and third categories can be seen as white-collar jobs.

determined by the labor market.[10] If the labor markets were segmented as I described above, earnings determinations would be different among the three types of workers.

Table 4 shows that the on average, migrant workers earn not only higher than local non-farm workers in rural areas, but also higher than urban workers. While this finding is a bit surprising, it is indeed consistent with results reported by Yang and Chan (2000), and Maurer-fazio and Dinh (2002). A better indicator would take into account of working hours and calculate hourly rate. Unfortunately, there is such a measurement in the survey data.

Table 5 presents estimates for separate earnings equations for non-farm workers, migrant workers and urban workers respectively, based on human capital models (education, age and its square term), with addition of party membership, gender, work-unit type, and occupation included as independent variables.

In regards to the effect of individual characteristics, Model 1 (non-farm workers) and Model 2 (migrant workers) show much similar patterns, in sharp contrast to Model 3 (urban workers). For both non-farm workers and migrant workers, the rewards to human capital variables (education and age) are low and insignificant, and neither party membership has significant effect. For urban workers with permanent status, one year of schooling brings about 3.5 percent ($=e^{0.035}-1$) increase in monthly earnings, a rate higher than both local non-farm workers and migrant workers, and the effect is statistically significant ($p< .001$); party members also enjoy an 11 percent ($=e^{0.105}-1$) advantage. As expected, the effect of age on earnings is concave, first increasing with early in the life course, and then diminishing after reaching the optimal number of years (about 56.7) of work experience. Gender difference in earnings is also large, with men earning 26 percent ($=e^{0.232}-1$) more than women, other things being equal.

[10] Income of the self-employed private entrepreneurs depend much more directly on the characteristics of their product market as well as their entrepreneurial skills, access to capital,

In regards to the effects of work unit and occupation, for non-farm workers, the worker unit sector does not matter at all, suggesting workers are fluid in the rural labor markets. Yet oddly enough, the earnings for white-collar occupation is lower than the earnings for blue-collar occupations. It is suspected that the former may rely on a regular and fixed salary, while the latter may rely on piece-counting wages and may often work overtime.

There are some sectoral and occupational differentials for migrant workers. Migrant workers in private firms earn 40 percent ($=e^{0.337}-1$) higher than migrants workers in the state firms, and the effect is statistically significant ($p<.05$). Among them, middle-rank manager/professionals also earn significantly higher than blue-collar workers. For urban workers, these patterns become even clearer: workers in collective firms earn less, and workers in private firms earn more (insignificant, though), than workers in state firms, other things being equal. Both ordinary staff and middle-rank managers/professionals earn significantly more than blue-collar workers.

Overall, comparisons of earnings determinations among non-farm workers, migrant workers, and urban workers show that non-farm workers and migrant workers share more similarities, especially in terms of returns to human capital variables. Despite of the fact that both in the "urban" labor market, the experience of migrant workers is different from that of urban workers. To a large extent, a boundary in the labor market can be drawn between those with urban *hukou* status and those without, rather than those working in rural areas and those working in urban areas.

To what extent the disparity in urban labor markets between migrant worker and worker with permanent registration status can be attributed to the sectoral segregation based on work units? Since migrant workers could be segregated in the sectors different from local urban

---

contact with suppliers, and other factors.

workers, and sectoral differentials in earnings may partly account for the advantages enjoyed by migrants. To test this hypothesis, I fit Model 1 and Model 2 in Table 6. Model 1 is an additive model, with a dummy variable of urban *hukou* status included. Net of other factors, urban workers' monthly wage is still only 76 percent ($=e^{-0,27}$) of that of migrant workers, a result consistent with descriptive statistics in Table 4. This gap should not be considered absolute since first, migrant workers usually do not have benefits, which account a significant portion of rewards to urban workers; and second, migrants usually work longer than local urban workers. Even with the higher level of earnings, migrants are not necessarily better off than local urban workers.

In Model 2 of Table 6, I include the interaction terms between work units and *hukou* status. Within the state sector local urban workers essentially earn 9.9 percent ($=e^{0.094}$-1) more than migrant workers, even though migrant workers are not entitled to benefits, and may work longer than urban workers. However, the negative and significant interaction terms suggest that the urban workers' advantages diminished in the work units that are subject to less redistributive control. In collective firms, urban workers earn only 58 percent ($=e^{0.094-0.642}$) of migrants, and in private firms, the figure is only 69 percent ($=^{e\ 0.094-0.469}$). The sectoral segregation partly explains the relatively higher cash income of migrant workers. On the other hand, it suggests that wage discrimination against migrants may be more prominent in the state-controlled sector than in the private sector.

To confirm that migrant worker and local urban workers are segregated based on work units, I estimate a logit model on entering the state work unit in Table 7, with education, age, party membership, gender, and *hukou* status as independent variables. Controlling the effect of other individual characteristics, urban workers are still much more likely to find jobs in state

work units than migrant workers. The net odds of being in state work units for urban workers are 2.45 times as high as for migrant workers. Since most good jobs are still concentrated in the state sector, the exclusion of migrants to access to the jobs in the state sector may lead to the lower returns to human capital and less career growth opportunities.

4. *Hukou* Status and Occupational Status Attainment

Prestige and working environment are very important dimension of stratification in the labor markets. Occupational attainment may be a better measure of labor market outcome, given the fact that the level earnings could be much contingent upon the number of hours a migrant work. Sociologists have constructed a scale to measure occupational status and prestige. Since The *Chinese Standard Classification of Occupations*, used to code the occupation data in the survey, closely matches the 1968 *International Standard Classification of Occupations* (International Labor Office 1969), so I use the 1968-basis ISEI scores were assigned to the data. *ISEI* scale (*International Socioeconomic Index of Occupations*) ranges in principle from 0 to 100 (Ganzeboom, De Graaf, and Treiman 1992).

In Table 9, based on Blau and Duncan's status attainment model (Blau and Duncan 1967), I estimate OLS regression models of occupational status on one's education, first job status, father's job status when the respondent was at age 14, and gender.

Based on the entire national sample with both rural and urban components, Model 1a includes two dummy variables - current *hukou* status, and whether the respondent has switched *hukou*. Results show that urban residents' occupational status is13.8 points higher than rural residents' occupational status; and those who originally held rural *hukou* status but later have successfully achieved urban *hukou* status enjoy an additional advantage of 3.5 points. In other

words, the *hukou* switchers have 17.3 points advantages in occupational status than their peer who stay with rural status. Whether or not one has changed *hukou* status makes a great difference in occupational status achievement. *The hukou* switcher indeed do better than other the urban residents originally from urban families.

As found earlier, education is an important factor in determining *hukou* change, as well as occupational status attainment. To examine how the effect of education on occupational attainment differs by *hukou* status, in Model 1b I include an interaction term between *hukou* status and education. The positive and significant interaction term suggests that, education has more effect on occupational attainment for urban residents than for rural residents, holding constant the other factors. One-year increase in schooling will lead to 0.53 points increase in occupational status for rural residents, but 1.2 points increase for urban residents, net of the other factors.

In Model 2a and Model 2b, I replicate Model 1a and 1b based on only the urban half of the sample (including both permanent urban residents and migrants). The substantive results remain roughly the same. Model 2a shows that local urban workers of urban origins enjoy 4.9 points higher, while local urban workers of rural origins enjoy 7.9 points higher, in occupational status than migrant workers. Model 2b also confirms that human capital is rewarded more among urban residents than among migrant workers. The *hukou* status is an important factor in determining occupational achievement in China's urban labor markets.

SUMMARY, DISCUSSION, AND CONCLUSIONS

To sum up, in this paper I have sketched out the structure of China's segmented labor market and its historical evolution, and examine the rural-urban labor migration process and their experience

in the urban labor market in a global perspective. Special attention was paid to the role of the *hukou* registration system in constructing labor markets in China's transition to a market economy.

I argue that the installation of the *hukou* system in the pre-reform era reflected an effort on the part of the government to cope with demographic pressures created by its rapid socialist-style industrialization. Couple with the urban work unit system, it not only served as an administrative tool to allocate human resources in socialist economy, but also created a basis to separate all Chinese citizens into two unequal classes, based on which socialist benefits are distributed. Rural-urban segmentation enhanced by the *hukou* system is one of the prominent features of Chinese labor structure (Wu 2001).

While the market has gradually replacing redistribution as the principal agent of allocating human resources, the pre-reform political and social institutions continue to define the construction of labor. Urban and rural labor markets are evolved separately based on laborer's registration status. Despite the ease of migration, migrant workers in cities are socially and spatially segregated from permanent urban residents, thereby far from achieving socioeconomic parity. *Hukou* status is important in drawing the segment boundary in China's urban labor markets.

Empirical evidence has shown that *hukou* mobility, typically associated with migration into cities, is different from spatial migration. The rural-urban migration through the change of *hukou* status is a highly selective process, in which only the best and the brightest can be allowed to enter the urban sector. On the contrary, spatial migration without changing *hukou* status to a large extent is a random process in terms of migrants' individual characteristics.

Second, even without changing *hukou* status, rural laborers have been able to find non-agricultural jobs, either in local TVEs or in cities, since the economic reform. Out-migrants are better educated than farm workers, but they are not the best-educated group. Despite of the higher earnings in urban areas, the best-educated rural laborers tend to stay as non-farm workers in local TVEs, and out-migration is only the second choice. The explanation lies in the cost associated with out-migration, including the urban discrimination. An important policy implication from this finding is that, creating more local non-farm opportunities would be a wise policy choice to curb the influx of rural laborers into cities.

Third, the patterns of earnings determination among local non-farm workers, migrant workers, and urban workers offer a strong support to the segmented labor market based on their *hukou* status. In the urban sector, due to the lack of local permanent status, migrant workers are segregated in non-state sector and denied of access to benefits and career opportunities. Earnings determination is much similar between migration workers and rural non-farm workers, in sharp contrast to urban workers. Human capital characteristics are not rewarded for both rural non-farm workers and migrant workers in urban areas, who exclusively hold rural *hukou* status. Migrant workers earn higher than local urban workers, mainly because they are segregated in the private sector, where wages are set higher, but probably with few benefits and long work hours. In the state sector, urban workers indeed enjoy a slight advantage in earnings. The discrimination against migrants is closely associated with the state rather than the market force.

Finally, rural *hukou* status is a barrier in occupational achievement in the labor market. The occupational status for either all-rural workers (including farmers) or migrant workers is significantly lower than that for urban workers. Education is more rewarded in the labor market designated for those with urban registration status. A particular interesting phenomenon is that,

people who have experienced *hukou* mobility enjoy full urban entitlements and are, in fact, highly advantaged relative to their rural peer, and also to the urban permanent resident as a consequence of the strong positive selection on the basis of education and political loyalty. Once the institutional hurdle is overcome, they seem to be fully integrated into the urban labor markets. *Hukou* change makes a great difference in the labor market outcome of migration.

Hence China's labor markets in transition are clearly segmented by laborers' *hukou* status. This differs from the segmentation phenomena based on capitalist economy discussed in Western literature. Segmentation theorists argue that labor markets in capitalist economies can be separated into two sectors — primary and secondary labor markets — with distinctive patterns in earnings, benefits, and career ladders between employees with the same individual characteristics but in different segments (see review in Kalleberg and Sorensen [1979]). This is similar to the situations found in China's labor markets. However, segmentation in market economies and reforming socialist economies are due to different causes. While the former is seen as a historical and evolutionary outcome of capitalism, or as a result of market failure (Chandler 1977), the latter is explicitly created by the state power and implemented through laws, policies, and other institutions (Bian 1994; Burawoy and Lukacs 1985; Domanski 1988; Stark 1986). Hence, while segmentation in capitalist economies can be corrected by government intervention in labor market through anti-discrimination laws, labor market segmentation in China's transition economy, which is based on the workers' registration status, calls for further market reform to remove the institutional barrier set by government policies.

Since the mid-1990s, the massive layoff from the state sector and surging cross-regional labor migration from rural areas have become two prominent features of China's labor scene in transition. The massive layoff has pushed many former state workers into the jobs and sectors

that are traditionally occupied by migrant workers, creating competition between migrants and lay-off workers. As a result, a possible opportunity for integration and assimilation of migrants is also afforded, since the benefits are no longer associated with work units and *hukou* status. With the surging cross-regional migration and urbanization in China, should the *hukou* segregation policy continue, the making of the urban underclass would be mostly likely in its process (for the case of the Blacks in American cities, see Massey and Denton [1993]). When the problems of urban poverty, unemployment, and community development associated with the segregation become entrenched, the social cost to solve them would be much higher.

REFERENCES:

Bernstein, Thomas. P. 1977. *Up to the Mountains and Down to the Villages: The Transfer of Youth From Urban to Rural China*. New Haven: Yale University Press.

Bian, Yianjie. 1994. *Work and Inequality in Urban China.* Albany: State University of New York Press.

Blau, Peter M. and Otis Dudley Duncan. 1967. *American Occupational Structure*. New York: Wiley.

Burawoy, Michael and J. Lukacs. 1985. "Mythologies of Work: A Comparison of Firms in State Socialism and Advanced Capitalism." *American Sociological Review* 50:723-37.

Cai, Fang et. al. (eds) 2002. *Employment in Rural and Urban China: Issues and Options*. Beijing, China: Social Science Archive Press.

Chan, Kam Wing. 1994. *Cities with Invisible Walls*. Hong Kong: Oxford University Press.

Chan, Kam Wing and Li Zhang. 1999. "The *Hukou* System and Rural-Urban Migration in China: Processes and Changes." *The China Quarterly* 160:818-55.

Chandler, Alfred D. 1977. *The Visible Hand*. Cambridge, MA: MIT Press.

Cheng, Tiejun and Mark Selden. 1994. "The Origins and Social Consequences of China's *Hukou* System." *The China Quarterly* 139:644-68.

Cook, Sarah and Margaret Maurer-Fazio (eds.) 1999. *The Workers' State Meets the Market: Labor in China's Transition*. Frank Cass.

Domanski, Henryk. 1988. "Labor Market Segmentation and Income Determination in Poland." *Sociological Quarterly* 29:47-62.

Fan, Cindy. 1999. "Migration in a Socialist Transitional Economy: Heterogeneity, Socioeconomic and Spatial Characteristics of Migrants in China and Guangdong Province."

International Migration Review 33:954-87.

Ganzeboom, H. B. G., P. de Graaf, and D. J. Treiman. 1992. "An International Scale of Occupational Status." *Social Science Research* 21:1-56.

Hare, Dennis. 1999. "'Push' Versus 'Pull' Factors in Migration Outflows and Returns: Determinants of Migration Status and Spell Duration among China's Rural Population." Pp 45-72 in *The Workers' State Meets the Market: Labor in China's Transition*, edited by Sarah Cook and Margaret Maurer-Fazio. Frank Cass.

International Labor Office. 1969. *International Standard Classification of Occupations.* Revised edition 1968. Geneva: International Labor Office.

Kalleberg, Arne L. and Aage B. Sorensen 1979. "The Sociology of Labor Markets." *Annual Review of Sociology* 5:351-79.

Knight, John, Lina Song and Jia Huaibin 1999b "Chinese Rural Migrants in Urban Enterprises: Three Perspectives," Pp 73-104 in *The Workers' State Meets the Market: Labor in China's Transition*, edited by Sarah Cook and Margaret Mauer-Fazio. Frank Cass.

Lee, Ching Kwan 1999. "From Organized Dependency to Disorganized Despotism: Changing Labor Regimes in Chinese Factories." *The China Quarterly* 157: 44-71.

Li, Lulu., and Fengyu Wang. 1992. *Dangdai Zhongguo Xiandaihua Jingcheng Zhong de Shehui Jiegou jiqi Bianqian.* (*Social Structure and Its Transformation in the Course of Contemporary Chinese Modernization*). Hangzhou: Zhejiang Renmin Press. [In Chinese]

Li, Qiang. 1993. *Dangdai Zhongguo de Shehui Fenceng Yu Liudong*.(*Social Stratification and Mobility in Contemporary China*). Beijing: Zhongguo Jingji Press. [In Chinese]

Liang, Zai and Michael J. White. 1996. "Internal Migration in China 1950-1988." *Demography* 33:375-84.

Liang, Zai and Michael J. White. 1997. "Market Transition, Government Policies, and Interprovincial Migration in China: 1983-1988." *Economic Development and Cultural Change* 45:321-84.

Lu, Xueyi (eds.) 2002. *Dangdai Zhongguo Shehui Jieceng Yanjiu Baogao* (Research Report on Social Stratification in Contemporary China). Beijing: Shehui Kexue Wenxian Chubanshe.

Ma, Zhongdong, and Kao-Lee Liaw 1994. "Education Selectivity in the Internal Migrations of Mainland China," in *Journal of Population Studies* 15: 135-159.

Ma, Zhongdong. 1999. "Temporary Migration and Regional Development in China." *Environment and Planning* A 31:783-802.

Mallee, H. 1996. "Agricultural Labor and Rural Population Mobility: Some Preliminary Observations," Paper presented at the Conference on Rural-Urban Migration, Beijing, June 25-27.

Massey, Douglas. S. and Nancy A. Denton. 1993. *American Apartheid: Segregation and the Making of the Underclass*. Cambridge, MA: Harvard University Press.

Maurer-Fazio, Margaret and Ngan Dinh. 2002. "Differential Rewards to, and Contributions of, Education in Urban China's Segmented Labor Markets." The William Davidson Institute Working Paper 508, Michigan Business School.

Meng, Xin. 1996. "Regional Wage Gap, Information Flow, and Rural-Urban Migration." Paper presented at the Conference on Rural-Urban Migration, Beijing, June 25-27.

National Bureau of Statistics. 2001. *China 2000 Census Data Tabulation*. Beijing: Zhongguo Tongji Press [in Chinese].

Naughton, Barry. 1997. “Danwei: The Economic Foundations of a Unique Institution.” In *Danwei: The Changing Chinese Workplace in Historical and Comparative Perspective*, edited by Xiaobo. Lü and Elizabeth Perry. Armonk, N.Y.: M. E. Sharpe.

Oi, Jean 1990. "The Fate of the Collective after the Commune." Pp15-36 in *Chinese Society on the Eve of Tiananmen: the Impact of Reform*, edited by Deborah Davis and Ezra F. Vogel. Cambridge: The Council of East Asian Studies, Harvard University.

Parish, William L. and Martin King Whyte 1978. *Village and Family in Contemporary China* Chapter 4 “Collective Agricultural Organization” Pp30-43. Chicago: The University of Chicago Press.

Parish, William L, Xiaoye Zhe and Fang Li 1995. “Nonfarm Work and Marketization of Chinese Countryside.” *The China Quarterly* 143:697-730.

Peng, Yusheng. 1992. “Wage Determination in Rural and Urban China: A Comparison of Public and Private Industrial Sectors.” *American Sociological Review* 57:198-213.

___, 2001. “Chinese Villages and Townships as Industrial Corporation: Ownership, Governance, and Market Discipline” *American Journal of Sociology* 106:1338-70.

Rawski, Thomas G. 2002 “Recent Developments in China's Labor Economy.” Manuscript obtained from Rawski.

Roberts, Kenneth D. 1997. “China’s ‘Tidal Wave’ of Migrant Labor: What Can We Learn from Mexican Undocumented Migration to the United States?” *International Migration Review* 31:249-93.

Roberts, Keenth D. 2002. “Female Labor Migrants to Shanghai: Temporray ‘Floaters’ or Potential Settlers?” International Migration Review 36:492-519.

Robinson, William S. 1950. “Ecological Correlations and the Behavior of Individuals”

American Sociological Review 15:351-357.

Rozelle, Scott, L. Guo, M. Shen, A. Hughart, and J. Giles. 1999. "Leaving China's Farms: Survey Results of New Paths and Remaining Hurdles to Rural Migration." *The China Quarterly* 158:367-93.

Solinger, Dorothy. J. 1999. *Contesting Citizenship in Urban China: Peasant Migrants, the State, and the Logic of Market*. Berkeley: University of California Press.

_____ 2001. "Why We Cannot Count the 'Unemployed'" *The China Quarterly* 160: 671-688.

Stata Corp. 2001. *Stata Reference Manual: Volume 3*, Stata Corporation. College Station, Texas.

Stark, David. 1986. "Rethinking Internal Labor Markets: New Insights from a Comparative Perspective." *American Sociological Review* 51:492-504.

Sun, Liping, Hansheng Wang, Sibin Wang, Bing Lin and Shanhua Yang. 1994. "The Changing Social Structure Since Reform." *Zhongguo Shehui Kexue* 86:47-62. [In Chinese]

Treiman, D. J. 1998. *Life Histories and Social Change in Contemporary China: Provisional Codebook*. Los Angeles: UCLA Institute for Social Science Research.

Walder, Andrew. G. 1986. *Communist Neo-Traditionalism: Work and Authority in Chinese Industry*. Berkeley and Los Angeles: University of California Press.

Wang, Fei-Ling 1998. *From Family to Market: Labor Allocation in Contemporary China* Rowman & Littlefield Publishers, Inc.

Wang, Feng, Xuejin Zuo, and Danqing Ruan 2001. "Rural Migrants in Shanghai: Living under the Shadow of Socialism." *International Migration Review* 36:520-45.

Whyte, Martin. K., and William Parish. 1984. *Urban Life in Contemporary China.* Chicago: University of Chicago Press.

Wu, Xiaogang. 1995. “Gaige Yilai Zhongguo Laodong Guanxi de Bianqian" (The Transition of Chinese Labor Relations since the Economic Reform) *Guanli Shijie* 1995 (3): 204-10, reprinted in *Xinhua Digest* (Issue 1 1996) [in Chinese].

___. 2001. *Institutional Structures and Social Mobility in China: 1949-1996.* unpublished Ph.D. Dissertation, Department of Sociology, University of California, Los Angeles.

___. 2002a. “Work Units and Income Inequality: the Effect of Market Transition in Urban China.” *Social Forces* 80(3) 1069 –1099.

___. 2002b. “Embracing the Market: Entry to Self-Employment in Transitional China, 1978-1996)” Population Studies Center Working Paper 02-526, University of Michigan, Ann Arbor.

____, and Donald Treiman 2002 “The Household Registration System and Social Stratification in China 1955-1996.” PSC Working Paper 02-449, University of Michigan, Ann Arbor.

___, and Yu Xie, 2003. “Does the Market Pay Off? Earnings Inequality and Returns to Education in Urban China.” *American Sociological Review* 68:425-42.

Yang, Dennis. 1997. “Education and Non-farm Work.” *Economic Development and Cultural Change* 45:613-32.

Yang, Quanhe and Fei Guo. 1996. “Occupational Attainment of Rural to Urban Temporary Economic Migrants in China, 1985-1990.” *International Migration Review* 30:771-87.

Yang, Xiaomin and Yihu Zhou. 1999. *Zhongguo Danwei Zhidu* (The Chinese Work-unit System). Beijing: Zhongguo Jingji Chubanshe [in Chinese].

Yang, Xiushi. 1993. “Household Registration, Economic Reform and Migration.” *International Migration Review* 30:771-87.

Yang, Xiushi. 2000. “Interconnections among Gender, Work, and Migration.” Pp. 197-213 in *Redrawing Boundaries: Work, Household, and Gender in China*, edited by Barbara Entwisle and Gale E. Henderson. Berkeley: University of California Press.

Yang, Xiushi and Fei Guo. 1999. “Gender Difference in Determinants of Temporary Labor Migration in China: A Multilelevl Analysis.” International Migration Review 33: 929-53.

Yang, Yunyan and Kam-Wing Chan 2000. “Zhuanxi Laodongli Shichang de Fenceng yu Jingzheng” (Stratification and Competition in Transitional Labor Markets). *Zhongguo Shehui Kexue* (5) [in Chinese].

Yao, Yang. “Social Exclusion and Economic Discrimination: The Status of Migrants in China’s Coastal Rural Area,” Working Paper E2001005. *China Center for Economic Research*, Beijing University.

Zhao, Yaohui. 1999. “Labor Migration and Earning Differences: The Case of Rural China.” *Economic Development and Cultural Change* 47:767-82.

___. 2000. “Rural to Urban Labor Migration in China: The Past and the Present.” Pp 15-32 in West and Zhao (eds.) *Chinese Rural Labor Flows*, Institute for East Asian Studies, University of California, Berkeley.

Zhong, Pengrong. 1990. *Jingji Gaige Shinian* (*Economic Reform in Ten Years*). Zhenzhou: Henan Renmin Press [In Chinese.]

Table 1. *Hukou* Status and Residential Areas: China, 1996 (N=6090)

	Hukou status		
Residence	Agricultural	Non-agricultural	Total
Urban areas	5.0%	89.6%	29.1%
Rural areas	95.0	10.4	70.9
Total	100.0%	100.0%	100.0%

	Hukou status		
Residence	Agricultural	Non-agricultural	Total
Urban areas	12.3%	87.7%	100.0%
Rural areas	95.8	4.2	100.0
Total	71.5%	28.5%	100.0%

Note: Data are weighted.
Source: the Chinese Life History Survey 1996.

Table 2. Spatial Migration and *Hukou* Mobility: Rural *Hukou* Registrants Living in Villages at Age 14

	Migration without changing rural *hukou*	*hukou* mobility from rural to urban
	Model 1	Model 2
Education	-0.021	0.330***
	(0.019)	(0.035)
Party member	0.257	1.193***
	(0.338)	(0.199)
Gender	-2.398***	-0.462**
	(0.188)	(0.165)
Age	0.009	0.051***
	(0.007)	(0.010)
Family background at age 14	0.003	0.030***
	(0.005)	(0.005)
Constant	0.013	-7.428***
	(0.037)	(0.554)
Pseudo R square	0.206	0.204
N	2434	2910

Figures in parentheses are robust standard errors adjusted for clustering on counties. Data are weighted.

*** p<.001 ** p<.01 * p<.05 † p< .10 (two-tailed tests).

Table 3. Multinomial Logit Models of Non-farm Work Determination: Local Employment and Out-Migration: Rural Registrants Active in Labor Force, 1996 (N=3087)

	Local wage earner vs. Local farmer	Out-migrant vs. local farmer
Education	0.171***	0.136***
	(0.025)	(0.028)
Party member	0.710***	0.406
	(0.202)	(0.315)
Gender	0.623***	-0.378*
	(0.145)	(0.188)
Age	-0.061†	-0.103**
	(0.033)	(0.039)
Age squarex1000	0.407	1.100 *
	(0.375)	(0.448)
Constant	-1.341†	-1.115
	(0.738)	(0.881)
Pseudo R square	0.086	

Figures in parentheses are robust standard errors adjusted for clustering on counties. Data are weighted.

*** p<.001 ** p<.01 * p<.05 † p< .10 (two-tailed tests).

Table 4. Characteristics for Wage Workers in Three Labor Markets

	Rural	Urban	
	Local Non-farm worker	Migrants	Urban workers
Monthly Income (Yuan)	392	590	480
	(215)	(360)	(421)
Years of schooling	8.2	7.5	9.7
	(2.9)	(3.4)	(3.6)
Age	35.6	35.1	42.0
	(11.7)	(12.4)	(13.0)
Party member (yes=1)	12.4%	13.0%	24.4%
Gender (male=1)	69.0%	59.0%	55.4%
Work Units			
State	30.9%	29.9%	59.9%
Collective	31.6%	13.7%	13.9%
Private	31.7%	37.2%	4.2%
Missing	5.8%	19.2%	22.0%
Occupation:			
Worker	73.4%	84.2%	63.0%
Ordinary staff	21.4%	9.9%	22.5%
Middle-rank manager/ professional or above	5.2%	5.9%	14.5%
N	225	180	1835

Figures in parentheses are standard errors for continuous variables

Table 5. Earnings Determinations in China's Segmented Labor Markets

	Rural	Urban	
	Local Non-farm worker	Migrants	Urban workers
	Model 1	Model 2	Model 3
Years of schooling	0.014	0.014	0.035***
	(0.023)	(0.013)	(0.005)
Age	0.034	-0.020	0.028***
	(0.033)	(0.019)	(0.006)
Age squarex1000	-0.499	0.092	-0.247**
	(0.434)	(0.221)	(0.080)
Party member	0.095	0.096	0.105***
	(0.170)	(0.182)	(0.025)
Gender	0.150	0.418***	0.234***
	(0.108)	(0.118)	(0.036)
Work Units (state omitted)			
Collective	-0.058	0.321	-0.175***
	(0.120)	(0.184)	(0.050)
Private	0.117	0.337*	0.162
	(0.136)	(0.161)	(0.173)
Missing	-0.587*	0.376*	-0.232***
	(0.291)	(0.170)	(0.065)
Occupation (worker omitted)			
Ordinary staff	-0.414*	0.073	0.108**
	(0.161)	(0.137)	(0.036)
Middle-rank manager/	-0.488†	0.405*	0.119**
Professional or above	(0.267)	(0.166)	(0.044)
Constant	5.041***	6.134***	4.826***
	(0.710)	(0.480)	(0.141)
R square	0.045	0.272	0.228
N	225	180	1835

*** p<.001 ** p<.01 * p<.05 † p< .10 (two-tailed tests).

Table 6. Earnings Determinations in Urban China Labor Markets: Hukou and Work Unit Interaction Effect N=2005

	Model 1	Model 2
Years of schooling	0.034***	0.034***
	(0.005)	(0.005)
Age	0.024***	0.024***
	(0.007)	(0.007)
Age squarex1000	-0.229**	-0.209*
	(0.083)	(0.081)
Party member	0.105***	0.104***
	(0.024)	(0.026)
Gender	0.250	0.244***
	(0.030)	(0.033)
Work Units (state omitted)		
Collective	-0.145**	0.466*
	(0.050)	(0.187)
Private	0.206	0.623***
	(0.142)	(0.137)
Missing	-0.159*	0.435*
	(0.062)	(0.161)
Occupation (worker omitted)		
Ordinary staff	0.116**	0.108**
	(0.035)	(0.033)
Middle-rank manager/	0.148**	0.132**
Professional or above	(0.046)	(0.043)
Urban hukou	-0.270**	0.094
	(0.096)	(0.085)
Interaction:		
Collective*urban *hukou*		-0.642**
		(0.192)
Private*urban *hukou*		-0.469**
		(0.152)
Missing* urban hukou		-0.649***
		(0.174)
Constant	5.203***	6.134***
	(0.191)	(0.480)
R square	0.215	0.272

Notes: Figures in parenthesis are robust standard errors
*** p<.001 ** p<.01 * p<.05 † p< .10 (two-tailed tests).

Table 7. Logit Model on Entry into State Work Units by *Hukou* Status

Variable	Model
Years of schooling	0.137***
	(0.019)
Age	0.292***
	(0.046)
Age square	-0.004***
	(0.001)
Party member	1.047***
	(0.181)
Sex	0.378**
	(0.139)
Urban *hukou*	1.239**
	(0.416)
Constant	-7.020***
	(1.206)
Pseudo R Square	0.211

Notes: Figures in parenthesis are robust standard errors
*** p<.001 ** p<.01 * p<.05 † p< .10 (two-tailed tests).

Table 8. The Effect of *Hukou* on Occupational Status Attainment

Variable	National sample		Urban sample Only	
	Model 1a	Model 1b	Model 2a	Model 2b
Years of schooling	0.609***	0.527***	1.059***	0.436†
	(0.069)	(0.072)	(0.150)	(0.257)
First job ISEI	0.400***	0.382***	0.324***	0.319***
	(0.034)	(0.036)	(0.030)	(0.030)
Father's occupational ISEI	0.051*	0.044†	0.005	0.002
When respondent at age 14	(0.023)	(0.023)	(0.030)	(0.030)
Gender (male=1)	1.447***	1.549***	0.351	0.472
	(0.409)	(0.400)	(0.845)	(0.816)
Current urban *hukou*	13.810***	7.736***	4.913***	-1.127
	(1.266)	(1.826)	(1.365)	(2.523)
Ever change *hukou* since age	3.531**	3.507**	3.018**	3.030*
14 (yes=1)	(1.300)	(1.249)	(1.237)	(1.221)
Schooling*urban *hukou*		0.677***		0.770**
		(0.194)		(0.276)
Constant	8.123***	9.016***	18.626***	23.371***
	(0.605)	(0.689)	(1.255)	(2.269)
R square	0.537	0.540	0.358	0.362
Number of cases	3563		1422	

Notes: Figures in parenthesis are robust standard errors

*** p<.001 ** p<.01 * p<.05 † p< .10 (two-tailed tests).

Figure 1. China's Labor Market Structures

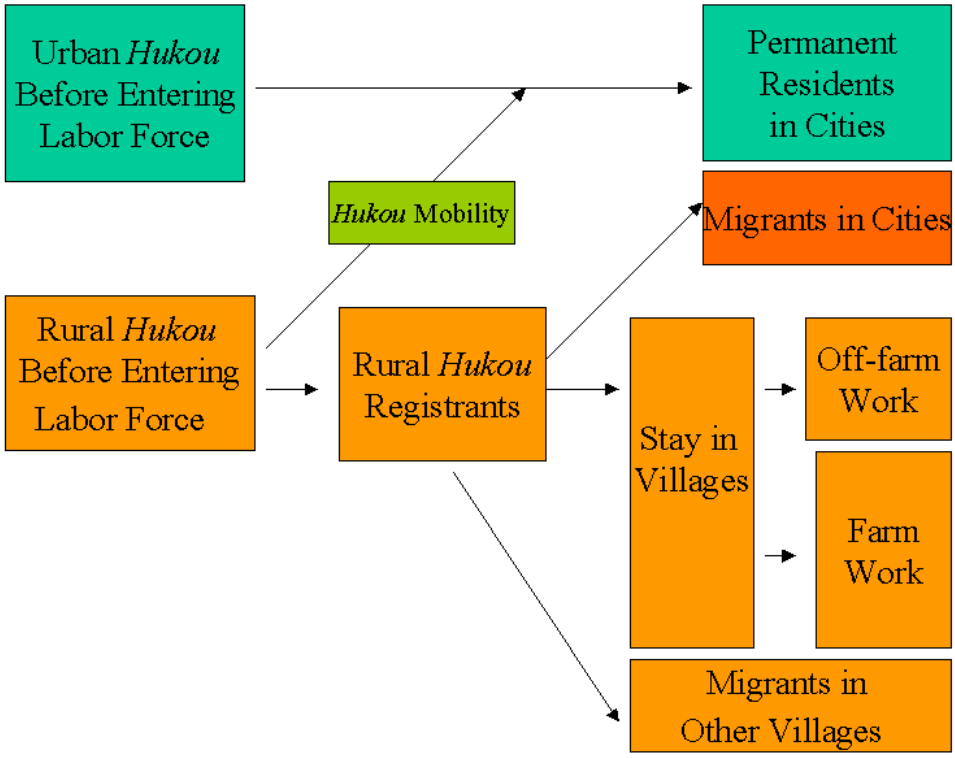
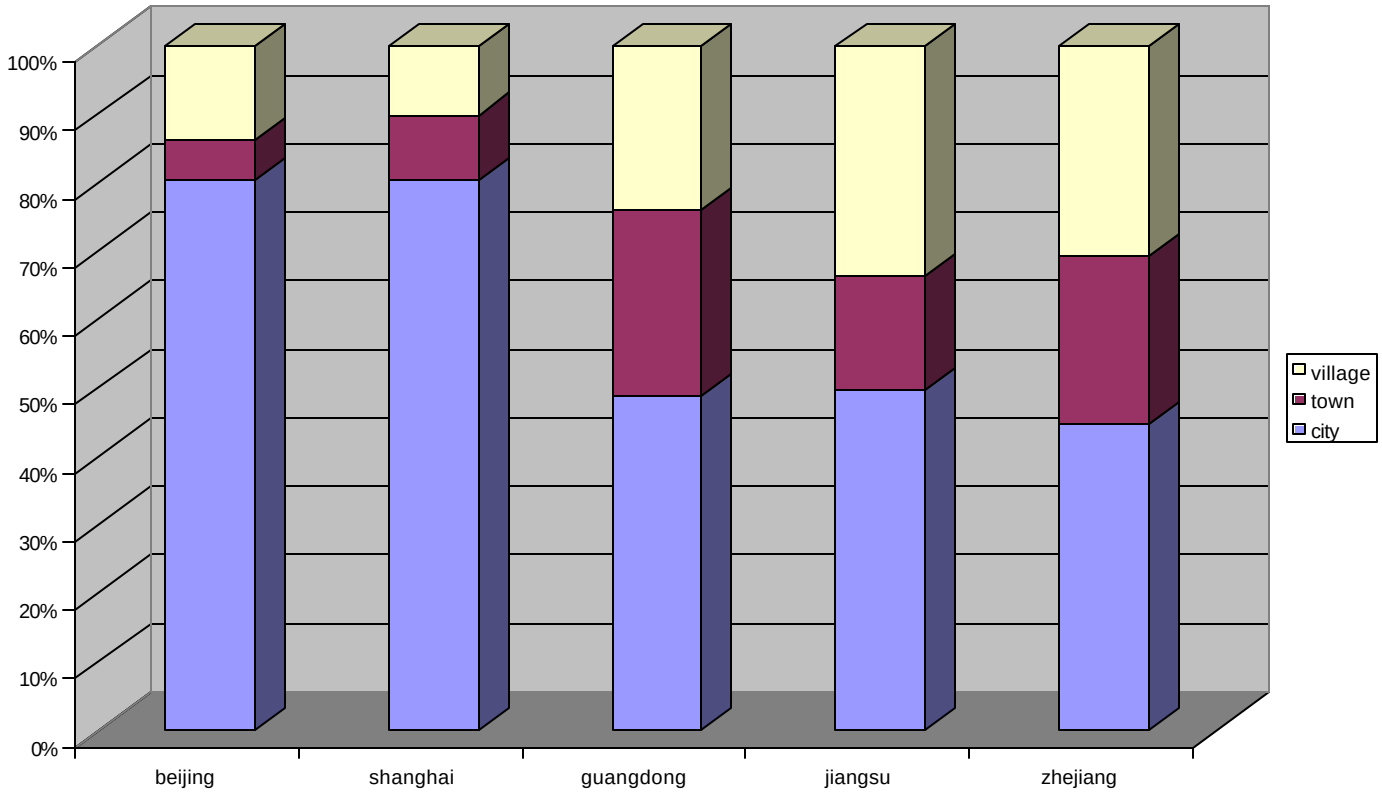


Figure 2. Compositions of Destinating Residence of Cross-Provincial Migrants in Selected Privinces/Municipalities: China Census 2000



Appendix Table A. Descriptive Statistics of Variables in Analyses: Rural and Urban Samples, China 1996

Variables	Urban Sample	Rural Sample
Current income per month (logged)	6,161	5.240
	(0.940)	(0.913)
Current Occupational socioeconomic status	44.42	20.95
	(15.58)	(11.73)
Current urban *hukou*	0.852	0.039
Current occupation		
Peasant	0.029	0.821
Ordinary worker	0.600	0.139
Ordinary professional/cadre	0.327	0.038
High-rank professional/official	0.043	0.002
Work unit sector		
State	0.381	0.035
Collective	0.090	0.027
Private	0.806	0.047
Missing or N.A.	0.447	0.891
Years of schooling	8.597	5.444
Education level		
Junior high school or below	0.652	0.925
Senior high school	0.106	0.017
Vocational school	0.142	0.053
College or above	0.100	0.004
Gender (male=1)	0.497	0.517
Age	41.98	40.90
	(13.47)	(12.53)
Age^2	1944	1829
	(1203)	(1097)
Party member (yes=1)	0.173	0.058
Spatial move since age 14	0.351	0.210
Hukou change since age 14	0.216	0.020
Father's socioeconomic status when	34.06	20.27
Respondents were at age 14	(19.32)	(11.90)
Father's years of schooling	4.483	2.368
	(4.412)	(3.116)
N	3087	3003

Figures in parentheses are standard errors for continuous variables