The Household Registration System and Social Stratification in China: 1955-1996[1]

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ABSTRACT

The Chinese household registration system (*hukou*) may be the most important determinant of differential privilege in state socialist China. Urban registrants are entitled to the best jobs, education, housing, and health care -- all of which are unavailable to those with rural registration. Thus, transforming one's *hukou* status from rural to urban is a central aspect of upward mobility. But given that *hukou* status is essentially ascribed at birth, how do rural *hukou* holders affect this change to urban status? Using data from a 1996 national probability sample, we found that education, communist party membership, and military service are the main determinants of rural-to-urban status changes.

INTRODUCTION

Sociologists have become interested in the spatial dimension of social stratification in recent decades. As a result, we now know that, in the United States, place of residence can exert a significant effect on life chances independent of one's endowments of human and social capital (Logan 1975; Logan and Molotch 1987; Massey and Denton 1993; South and Crowder 1997, 1998). Unfavorable local labor markets and difficulties in establishing useful social ties in neighborhoods where most residents are poor provide part of the explanation. Because in the U.S. and other Western nations, people are legally free to move from one place to another in the context of a market economy, changing residential locality is generally treated as unproblematic (but see Massey and Denton 1993 on the special difficulties of U.S. blacks). Hence, studies have mainly focused on the impact of current residential locality or neighborhood on people's economic well-being. By contrast, in a redistributive economy where migration is restricted, a change in residential locality may require qualifications stipulated by state policies. The Soviet *propiska* (internal passport) system and China's *hukou* (household registration) system are procedures implemented to control labor mobility in the two largest command economies (Dutton 1992).

In the Soviet era such restrictions did not yield much variation in living standards across residential localities because of a uniformly imposed economic and social system (Gerber 2000). However, when the socialist regime was installed in China, the low level of economic development and the large population meant that the new government could not afford to make socialist entitlements and benefits available to all citizens. The solution was to create a very pronounced and well-institutionalized distinction in the rights (and responsibilities) of those from urban and rural areas. Since 1955, when the current registration system was established, China has been institutionally divided into two systems, with an "invisible wall" between the urban and rural sectors (Chan 1994b). Social welfare benefits, including access to subsidized housing, education, medical care, and retirement benefits, and even the right to employment in all but menial jobs, are available only to those with local urban *hukou*. Moreover, a sharp distinction is made between those with rural and urban *hukou*, with state-subsidized benefits - which in the not-so-distant past included even food rations - made available only to those with urban *hukou* and in-kind taxes required only of those with rural *hukou*.[2] Thus, having an urban *hukou* radically improves life chances; but, as we will see, converting a rural to an urban *hukou* is very difficult.[3]

Given that the stratification mechanisms in rural and urban China are so different, most scholars have tended to treat these sectors separately, as if they were two countries. Studies of

[2] There are two classifications in the Chinese household registration. The first is the *place* of registration (*hukou suzaidi*), based on one's presumed regular residence. 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 creates a sharp distinction in socio-economic entitlements among Chinese citizens, and significantly shapes the order of social stratification in the country.

[3] In the 1996 sample used in this paper, about 13.8 percent of those with rural *hukou* at age 14 had an urban *hukou* at the time they were surveyed, and perhaps one-quarter of these converted their *hukou* not through individual achievement but because they lived in a village that was subsequently incorporated into a city. Thus, only about 11 percent of the rural-origin population achieved an urban *hukou* through individual effort.

inequality, stratification, and the effect of the transition toward the market tend to focus on either the rural or the urban sector, but seldom consider both sectors together (e.g., Bian and Logan 1996; Griffin and Zhao 1993; Nee 1996; Parish and Michelson 1996; Xie and Hannum 1996; Zhou 2000).

Nonetheless, several studies have revealed significant disparities in living standards and income between rural and urban residents (e.g., Chan 1994b; Knight and Song 1999). These disparities cannot be attributed solely to differences between the agricultural and non-agricultural sectors. Even within the non-agricultural sector, returns to human capital are much lower in rural than in urban China. For example, Peng (1992) found more wage variation by urban and rural sector than by public and private firm, with wage determination in the rural public sector similar to that in the rural private sector, but quite different from that in the urban public sector. The institutional boundary between rural and urban China created by the household registration system seems to prevail over other institutional distinctions in the Chinese social stratification system (Wu 2001).

The *hukou* system has also created a pattern of rural-to-urban migration in China that is distinct from other developing nations (Treiman, Mason, and Lavely 2001). The typical pattern in developing nations is for economic development to promote massive and uncontrolled migration from the countryside into urban areas, leaving the rural areas deprived of both population and development. By contrast, as shown in Figure 1, the growth of the registered urban population in China lagged far behind the growth of non-agricultural GDP and non-agricultural employment. Throughout the1960s and 1970s the percentage of urban registrants remained more or less constant while the percentage of GDP from non-agricultural sources and the percentage engaged

in non-agricultural employment systematically increased. Second, spontaneous rural-to-urban migration was essentially nonexistent in the pre-reform era (prior to 1977) because moving from a village into a town or city (or indeed, moving from one place to another at the same level) had to be approved by the government, and approval was not easy to obtain.[4] Thus, almost everyone lived where they were registered and the *de facto* and *de jure* populations of the cities were nearly the same. Since the economic reform started, informal migration has become somewhat easier, resulting in a large "floating population" - people who have migrated to cities for work but have not acquired the entitlements of those who hold urban *hukou* (Solinger 1999). However, formal, or "government sponsored" migration, entailing a change in *hukou* status, remains very difficult. *Hukou* status is acquired at birth, based on the mother's *hukou*, and is fixed for life, except in the circumstances discussed below in which rural-to-urban *hukou* change is permitted. Thus, those with urban *hukou* are essentially protected from downward mobility. Even if they move to a rural village, they still are entitled to urban rights and privileges and can freely return to the city.[5] All their children are also guaranteed this lifelong status and thus protected from downward mobility. This aspect of the *hukou* system crystallized the difference in socioeconomic benefits and life chances associated with rural and urban *hukou*, and thus created two classes of citizens. Thus, converting a rural to an urban *hukou* (*nong zhuan fei*) does not simply facilitate

[4] Indeed, even to get a hotel room in a city, a non-resident had to show that he had permission from the authorities at the place he was registered.

[5] Even those "sent down " to rural areas during the Cultural Revolution were almost all allowed to return to their cities of origin. In the sample used here, only seven percent of those ever sent down still lived in the place they had been sent to and even among the seven percent it is likely that a substantial fraction is voluntary, resulting from marriage to a local resident, etc. In general, forced conversion from urban to rural *hukou* was not used for punishment or social control.

upward mobility but is itself an important form of upward mobility, indeed probably the most important form of upward mobility in China today.

Previous literature on migration and urbanization in contemporary China has largely neglected the institutional aspect of rural-urban mobility, or the conversion of *hukou* status *per se* (*nong zhuan fei*). Descriptive studies of the constraints of *hukou* status on rural-to-urban migration are largely based on aggregate census data and provide little information on how individuals overcome institutional hurdles and achieve urban *hukou* status[6] (e.g., Chan 1994a, 1994b; Chan and Zhang 1999; Cheng and Selden 1994; Christiansen 1990). This investigation aims to fill the gap. Using data from the 1996 *Chinese Life History and Social Change Survey* (Treiman 1998), we study what factors affect the likelihood that those from rural origins can obtain an urban *hukou* and whether the likelihood has changed over time, particularly since the introduction of economic reforms in 1977. We first briefly summarize the history of the *hukou* system, and identify disparities in the socioeconomic benefits accorded to those with urban and rural *hukou*. We then examine how *hukou* status at age 14 affects two aspects of life chances: attainment of higher education and communist party membership. Next we investigate the factors that determine *hukou* mobility from rural to urban status, among which education, communist party membership, and military service are given particular attention. We also employ event

[6] Cheng and Selden (1994) mention the process of *hukou* conversion (*nongzhuanfei*) and Chan (1994) claims that the *hukou* system has created two classes of citizens in socialist China. However, neither study empirically examined the process of *hukou* mobility from the perspective of social mobility with individual-level data.

history analysis to examine the temporal trend of *hukou* mobility.[7] Finally, we discuss the implications of the findings for the analyses of social mobility in China.

THE CHINESE HOUSEHOLD REGISTRATION SYSTEM

In 1955, as one of its procedures for solidifying administrative control, the new Chinese communist government established the household registration system still in place today. All households were registered in the locale where they resided and also were categorized as either agricultural or non-agricultural - or as rural or urban - households (Chan and Zhang 1999).[8]

The installation and subsequent tightening of the *hukou* system also reflected an effort on the part of the government to cope with demographic pressures created by its rapid socialist-style industrialization. After the civil war and two ensuing years of economic rehabilitation (1950-1952), millions of peasants were recruited by burgeoning state industrial enterprises established in urban areas as part of the first Five-Year Plan (1953-57), and many more moved without restriction into cities to look for urban jobs (Meisner 1999). To check this rapid influx into cities,

[7] The static analysis of the determinants of *hukou* change and the event history analysis of the probability of *hukou* change at each year of risk are intended to complement each other. The static analysis makes it difficult to resolve issues regarding the temporal ordering of outcomes and to adjudicate between "age" and "period" interpretations of the effect of year of birth. However, the event history analysis relies on a somewhat problematic imputation of year of *hukou* change and hence is inadequate alone. As we will see, the two approaches yield consistent answers, which gives us much greater confidence that our conclusions are correct about both the determinants of conversion from rural to urban *hukou* and their relative magnitudes.

[8] *Hukou* status may be inconsistent with residential location. People with agricultural *hukou* could and can live in cities, as do migrant workers in the reform era; people with urban *hukou* could also live in rural areas, as do agricultural technicians and school teachers in rural areas. However, the two indicators are highly correlated. Data from both the 1990 Census and our 1996 Chinese Life History Survey show that 95 percent of rural residents hold agricultural *hukou*, while about 90 percent of urban residents hold non-agricultural *hukou*. To be sure, both sources undercount the number of rural *hukou*-holders residing in urban areas, but the basic point still holds. In this paper, "urban residents" refer to those who hold non-agricultural *hukou* and hence are entitled to a variety of privileges and benefits stipulated by state policies, and "rural residents" refer to those who hold agricultural *hukou*.

the registration system made a distinction between agricultural and non-agricultural *hukou* that was used both to restrict further rural-to-urban migration and to return rural migrants to the countryside.[9] This use was especially prevalent in the aftermath of the Great Leap Forward (1958-1960), which threw the newly established system into chaos. A dramatic increase in (nominal) industrial growth and urban inflow pushed China's urban population from 16.2 percent in 1958 to 19.7 percent in 1960, the all-time high in the pre-reform era (Figure 1). The government soon realized that China's grain-production capacity was unable to sustain such a huge urban population, especially given the decline in agricultural production during the Great Leap Forward. Thus, beginning in 1959 the government expanded and rigorously enforced its use of the *hukou* system as a tool to control migration. About 18 million urban workers were sent back to their home villages between 1961 and 1963 (Chan 1994b, p39), and 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), to help reduce both urban unemployment and school crowding (Bernstein 1977; Zhou and Hou 1999).

The effectiveness of the *hukou* system in restricting internal migration relied on two other administrative systems through which rationing was carried out. On the rural side, the commune system enabled local governments to bind 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 principal administrative unit for most urban residents was the workplace

[9] In this period, the State Council issued *Directives on Dissuading Peasants from Blindly Flowing into Cities* on April 17, 1953, and *Directives on Establishing a Regular Household Registration System* on June 9, 1955.

organization (*danwei*), which administered most social services for their employees (Bian 1994a; Walder 1986, 1992; Naughton 1997). Without a work unit, it was very difficult to survive in a city because 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 L. and Wang F. 1992; Walder 1986), even rural residents willing to risk losing food rations by leaving their home villages would have little chance of getting a job in a city. This tight administrative control on both sides virtually eliminated unauthorized rural-to-urban migration in the pre-reform era.

Economic reform during the next two decades, however, relaxed this administrative control. The abolition of the commune system, starting in 1978, freed peasants to seek work in the industrial and service sectors, while erosion of the rigid *danwei*-based rationing system in urban areas created social space for rural immigrants. To enhance the development of the service sector in cities, the State Council allowed peasants to establish small urban businesses such as shoe-repair shops, barbershops, and restaurants (Li Q. 1993, p. 110). Further, millions of young peasants were hired in the growing market sector outside the redistributive system. Even some state-owned work units preferred to hire rural peasants because the units had no commitment to provide housing and other social benefits for these peasant-workers or because the jobs were unattractive to urban workers. Thus, by the end of 1990 the urban "floating population" had reached 70 million (for estimates, see Banister 1997; Solinger 1999, pp. 19-20 [Table 1]), and some researchers put the size of the floating population at the turn of the century as high as 90 million (Ma 1999).

Although geographic mobility and employment change have become relatively easier, the social implications of *hukou* status remain unchanged. No matter how similar their jobs are to those held by urban workers, employees with rural *hukou* status are still classified as "peasant-workers" and are thereby not entitled to the many labor rights and benefits offered to employees with urban *hukou* (Solinger 1999). As Chan (1994b, p. 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" In the reform era the *hukou* system has remained largely in force and still greatly shapes socioeconomic status and life chances (Christiansen 1990, 1992).

China's socialist industrialization program was made possible by the *hukou* system and restricted migration, which allowed the government to exploit the agricultural sector and sacrifice the interests of rural residents to those of urban residents. To ensure food grain needed for urban industrial growth, the government relied on a system of "unified purchase"(*tonggou*) to forcibly procure farm produce at low prices from the peasantry (Lin, Cai, and Li 1994). At the same time, consumer products allocated free-of-charge or at low prices to urban residents as welfare benefits of their work units were sold at high prices in rural areas. The government's discriminatory policy resulted in a substantial gap in income and living standards between rural and urban residents. Permanent urban residents also enjoyed many other welfare benefits delivered by the state, such as free or subsidized food grain, free or low-rent apartments, and retirement and medical insurance. The government also guaranteed every eligible urban resident a permanent job, but accepted no such responsibility for rural residents. Crucially, children with urban *hukou*

and rural *hukou* status did not enjoy equal opportunities to obtain education, especially higher education. Educational resources were unevenly distributed between rural and urban areas, with rural schools less widely available and generally of inferior quality. Further, local governments usually favored students with urban *hukou* with respect to admission to vocational/ technical schools and community colleges -- levels of education that served as thresholds for changing *hukou* status. By setting admission standards higher for rural students, they were able to limit the rate of *hukou* conversion.[10] In sum, living in a city with an urban *hukou* was enormously advantageous. The urban-rural gap has been likened to the distance between heaven (*tian*) and earth (*di*). Changing from rural *hukou* to urban *hukou* was more difficult than "climbing to heaven."

OBTAINING URBAN *HUKOU* STATUS: HYPOTHESES

Hukou status can be thought of as primarily ascribed rather than achieved since it is defined at birth on the basis of the mother's status and cannot be easily changed (Chan and Zhang 1999). Although government policies encouraged urban residents to move to rural areas, there was essentially no voluntary mobility in that direction given the huge disparities associated with the two types of *hukou* status. *Hukou* mobility, therefore, was mainly from rural status to urban status

[10] According to personal interviews the first author conducted in China, the main reason for this policy was related to the government's commitment to provide jobs for urban residents. If high school students with urban *hukou* failed the university admission exam and thus were not able to continue their education, the government still had to assign them jobs. On the contrary, if high school students with rural *hukou* were not able to enter vocational schools/colleges, they literally had to return to their home villages and work as peasants. Although in the reform era other non-agricultural opportunities (e.g., working in township or village enterprises) became available for rural school-leavers, the government had no responsibilities for the post-school careers of rural youth. In the late 1990s because urban high school graduates were no longer interested in vocational school education, vocational schools gradually lowered admission thresholds for rural students, who are usually charged with extra fees, and not guaranteed with job assignments after graduation.

(*nong zhuan fei*), which was highly restricted by the government to maintain the urban welfare state.

Yet both institutionalized and non-institutionalized channels did exist for *hukou* mobility in China, even during the harshest period immediately after the Great Leap Forward. Though the severity of limitations varied, rural *hukou* holders could change their ascribed status through their own efforts. Indeed about 11 percent of respondents in the 1996 survey had done so (see note 3). The main factors that qualified one for conversion of *hukou* status are elaborated below.

First, education is an important institutionalized channel of *hukou* conversion.[11] According to *hukou* regulations, students are granted urban *hukou* status upon admission to specialized secondary (*zhong zhuan*) or tertiary (*da zhuan* or *ben ke*) schools (The State Council 1986 [1958]). Whereas access to urban primary and regular middle schools is essentially restricted to local (permanently registered) residents, specialized secondary and tertiary schools (hereafter, higher education) are in principle open to all citizens on the basis of merit (usually assessed by examination scores). Thus, junior high school graduates with a rural *hukou*, had (and

[11] Here a brief introduction to the Chinese education system is in order. The system is organized so that six years of primary school (*xiao xue*) are followed by three years of junior high school (*chu zhong*). After junior high school, students are assigned to different tracks based on their own choice as well as their examination score (usually administered at the city/prefecture level). Vocational tracks include specialized secondary schools (*zhong zhuan*), which take four years, and vocational high schools (*zhi ye gao zhong*) and technical high schools (*ji xiao*), which take three years. On the academic track, students continue to senior high school education (three years). Senior high school graduates can take the *National College Entrance Examination*. Based on exam scores, students are admitted to different kinds of tertiary schools. At the top are regular universities and colleges (*ben ke*), where students can obtain a bachelor's degree in four or five years. Three-year specialized colleges (*da zhuan*) are designed for those students with lower scores. Students with even lower scores are assigned to specialized secondary schools (*zhong zhuan*), where they spend an additional two years to obtain the same diploma as those who have directly entered the vocational track. Finally, those scoring most poorly must return to their place of origin and find work, which for rural students means returning to their home village and taking up life as a peasant (Gao 1985; Deng 1993, pp. 136-7; Unger 1982). In our data, vocational, technical, and specialized high schools are not distinguished from each other, so we will use these terms interchangeably. Unfortunately, no data source we have been able to locate, including the 1990 Chinese census, subdivides these categories, which is odd given their very different consequences for life chances.

have) two strategies for gaining an urban *hukou* via higher education. The first was to gain admission to a specialized secondary school (*zhong zhuan*), which conferred urban *hukou* status immediately upon admission. The second was to gain admission to an academic senior high school and then try to get admitted to a tertiary school. Tertiary education confers both urban *hukou* status and a good job; but the risk is that students from rural origins who fail the *National College Entrance Examination* must return to their home villages and work as peasants.

Given the highly selective character of Chinese higher education (only 4.5 percent of the rural-origin population have any secondary or tertiary education), educational attainment accounts for less than half of all *hukou* mobility. Two other ways of changing *hukou* status are to join the Chinese Communist Party (CCP) or the People's Liberation Army (PLA). Although CCP membership and PLA military experience do not guarantee urban *hukou* status, political loyalty manifested in these ways is thought to improve the odds of eventually gaining an urban *hukou*. For example, rural party members can serve as rural "cadres" (village heads, village party secretaries, heads of village enterprises, or village accountants). Some of these "peasant cadres" are promoted to leadership positions at the township level, making them part of the state bureaucratic system and hence eligible to change to urban *hukou*.

Because the CCP does not actively recruit in rural areas, party membership is generally not accessible to ordinary peasants. A well-known strategy for rural youth seeking upward mobility is to join the PLA first, and then to acquire party membership in the Army (Chan 1994b). After being discharged, a former PLA member can either obtain an urban job directly,

and thereby change *hukou* status, or can return to his[12] village and start a career as a rural cadre. Thus PLA experience can be seen as a semi-political credential which, when coupled with CCP membership, offers an alternative to higher education as a way for rural *hukou* holders to alter their status and destiny (Wu 2001).

Fourth, relatively advantaged rural families are positioned to help their children achieve urban status when the infrequent opportunity becomes available. Under special circumstances urban factories may directly recruit employees from rural areas. Because this process is usually administered or coordinated by local cadres, their children gain privileged access to these jobs. Also, parental communist party membership may help rural children's chances of changing their *hukou* status. CCP membership often can be directly transferred to the next generation, improving the odds that children can change status via the political track. Further, parental party membership in rural areas implies social/political capital, which may improve their children's opportunities to obtain urban *hukou* status through informal channels, net of their own educational and political credentials (Bian 1994b).

[12] Although in principal PLA service is open to both men and women, in the 1996 sample not a single woman had ever served in the army. It is also an uncommon experience for men: only about one percent of men with rural *hukou* status at age 14 had subsequent military service.

Fifth, urban connections in a mixed *hukou* family[13] (typically an urban father and a rural mother) may facilitate *hukou* mobility. Because children's *hukou* status generally follows that of the mother (The State Council 1986 [1958]), urban status fathers in mixed *hukou* families cannot easily transfer their occupational achievement in the urban sector to their children. However, the sharp contrast between rural and urban *hukou* is especially salient within such families, which may not only provide additional motivation for children to change their lives, but the access to urban resources that offer information on how to take advantage of educational and employment possibilities. Further, the *dingti* policy of the 1980s allows one child of urban status workers to take over their parent's job in the *danwei* when they retire, which in the case of children born to rural mothers and urban fathers, would change their *hukou* status to urban. (Bian 1994a, p. 55; Walder 1986, p. 67).

In any examination of the potential to obtain urban *hukou* status, gender inequality must be considered. Because traditional practices, particularly patrilocal marriage and the transfer of women's obligations from their own parents to their husband's parents, remain stronger in rural China, rural women are particularly disadvantaged in acquiring educational and political credentials. But even net of such credentials, they are less likely to enjoy the sponsorship of their

[13] This is another feature of the rigid *hukou* system. Even marriage to a person with an urban *hukou* does not entitle one to permanent urban *hukou* status (Whyte and Parish 1984). Calculations from the 1990 Chinese census indicate that at least 8.7 percent of married couples in China had mixed *hukou*. This probably is an underestimate, for two reasons. First, the way information was recorded in the census permits matching only the head and spouse, the parents of the head, and the grandparents of the head. Thus, married children of the head living in the household with their spouses are excluded from the calculation. Second, many married couples with mixed *hukou* live apart. Kim (1990) reported that because of this system about 4.6 million married couples were separated from each other in the 1980s (see also Chan 1994, p. 77). In cases where one parent has a rural *hukou* and the other a rural *hukou*, the child's *hukou* status generally follows that of the mother (The State Council 1986 [1958]).

families; when a family uses social connections for its children's future, sons almost always have priority.

To sum up, notwithstanding the rigid segmentation of China into urban and rural components, a few formal and informal channels allow rural residents, particularly males, to obtain urban status. These include gaining higher education, joining the army and/or the communist party; and exploiting family connections to seize special opportunities. Together these channels were presumably used by the approximately 11 percent of the 1996 rural-origin population who had obtained an urban *hukou.* Another 3 percent were able to change *hukou* without changing residence, presumably because their villages were incorporated into towns or cities (although even some of these may have changed *hukou* on the basis of individual efforts).[14] Researchers generally concur on the factors that influence *hukou* mobility, but to date no one has quantitatively assessed the impact of each of these factors. Such an assessment is the aim of the research reported here. We formally test the following hypotheses for the rural-origin population where "change *hukou* status" refers to switching from rural to urban status, and where the net effects of each factor are analyzed.

$ Hypothesis 1: *People with higher levels of education are more likely to change hukou status than are those with lower levels. Upper specialized/vocational and tertiary education are particularly important.*

[14] According to the statistical records kept by the police department in a suburban township of Zhenjiang, where the first author conducted interviews, among 17038 residents registered as rural *hukou* status in the beginning of 2001, there were 176 who obtained *hukou* status (not counting 156 who bought the urban status in the local township), including 98 persons through education, 12 through military enlist, 22 through marriage, 43 through other family connections, and 1 through job switch. Education still remains as a predominant channel.

$ Hypothesis 2: *Party members are more likely to change hukou status than are non-party members.*

$ Hypothesis 3: *People with military experience are more likely to change hukou status than are people without military experience.*

These three hypotheses are consistent with the dual-path model (Walder 1995; Walder, Li and Treiman 2000), which predicts that both educational and political credentials are important for social mobility in state socialist societies. Based on the discussion above, we offer three additional hypotheses:

$ Hypothesis 4: *Men are more likely to change hukou status than are women.*

$ Hypothesis 5: *People whose parents were Communist party members when they were growing up (at age 14) are more likely to change hukou status than are people whose parents were not party members.*

$ Hypothesis 6: People whose fathers were employed in state work units when they were growing up are more likely to change hukou status than are people whose fathers were not employed in state work units.

DATA, VARIABLES, AND MODELS

The data used in this analysis are 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).[15]

The survey questionnaire contains extensive information on respondents' life histories and on the characteristics of family members. Information on respondents' household registration status (*hukou*), occupations, education, and political affiliation, and similar information about the respondent's parents, are exploited in the following analyses. The survey collected information on *hukou* status at three time points: *hukou* at birth, *hukou* at age 14, and current *hukou* status. In addition, the place of residence in the Chinese urban hierarchy (ranging from "village" to "national-level city") was recorded for the same three time points. This information is nearly complete, with very few missing observations. We use *hukou* status at age 14, instead of *hukou* status at birth, as the origin status. Although relatively few people changed *hukou* status between birth and age 14, status at age 14 is the more appropriate measure for analyzing factors that increase the likelihood of changing *hukou* status. The 19 percent of respondents born before 1941, and some of those born in 1941, had no *hukou* at age 14 since the *hukou* system was

[15] 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 from each stratum with probability proportionate to the size of the adult population (PPS); within each county, one township (*xiang*) was chose PPS; within townships, two villages (*cun*) were chosen PPS; within villages, 30 households were chosen from the permanent and temporary *hukou* lists PPS; and within households, one adult was chosen at random; 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 (1988, Appendix D) for details. This is effectively a national probability sample of the Chinese population, since the population of Tibet is so small that it is extremely unlikely that any Tibetan counties would have been selected.

introduced in 1955; for these respondents, an origin *hukou* was imputed on the basis of residence at age 14: those living in villages were assumed to have rural *hukou* origins and those living in towns and cities were assumed to have urban *hukou* origins. These manipulations permitted us to construct two binary variables: *hukou* origin and *hukou* destination (urban=1, rural=0).

Other variables included in the analysis are coded as follows:

- *Respondent's education* appears both as an outcome variable in a model focusing on the effect of *hukou* origin and as a major determinant of obtaining an urban *hukou* for the rural-origin population. To distinguish the educational levels leading automatically to urban *hukou* (specialized secondary and tertiary education), we recode education into four levels: junior high school or below, academic senior high school, specialized/vocational high school,[16] and any tertiary level institution (college or above). In the event history analysis, respondent=s education refers to the education level at the year of risk.
- *Respondent's party membership* is coded as a dichotomy (party member =1, non-member=0). For the event history analysis, party membership refers to the year at risk. Respondents were asked the year they joined the party only if they indicated that they were party members at the time of interview. Thus, we have no way of identifying former party members. However, in China, unlike Eastern Europe, virtually no one leaves or is expelled from the party, even those who get into political trouble (Chang 1991).

[16] As noted above (note 11), our data fail to distinguish three-year vocational high schools(*zhi gao*), which do not guarantee urban *hukou* status, from four-year specialized high schools (*zhong zhuan*), which do. Thus, our estimates of the advantage of attending "specialized/vocational high schools" will overstate the true effect of attending vocational high school and will understate the true effect of attending specialized high school.

- *Military experience* is constructed based on the respondent's work history. This is coded as a dichotomy (yes=1, no=0), and again for the event history analysis refers to whether the respondent had military experience by the year at risk.
- *Parental education* is measured by the years of school completed by the father or mother of the respondent, whichever is higher.
- *Parental party membership* is a dichotomous variable, scored 1 if either parent was a party member when the respondent was age 14.
- *Parental ISEI* (*International Socioeconomic Index of Occupations*) is a scale of occupational status, ranging in principle from 0 to 100 (Ganzeboom, De Graaf, and Treiman 1992). The *Chinese Standard Classification of Occupations*, used to code the occupation data in the survey, closely matches the 1968 *International Standard Classification of Occupations*, so 1968-basis ISEI scores were assigned to the data. For this analysis, we used the higher of the mother's and the father's ISEI when the respondent was age 14.
- *Father's work unit* is measured by a dummy variable, coded 1 if the father worked in the state sector (that is, in a government agency, state institution, or state enterprise) when the respondent was age 14 and coded 0 otherwise. This variable better captures the possibility that the father had urban *hukou* status than whether he worked in a work unit (*danwei*) because many peasants work in private/collective work units without changing their *hukou* status. We have no direct measure of father=s *hukou* status.
- *Gender* is a dummy variable (male=1 female=0).

$ *Period* refers to one of five coded time periods during which a respondent changed status. Recent Chinese history has been very turbulent, which makes it important to capture period variations in the severity of the *hukou* system. To separate period effects from age effects, it is necessary to know when a person changed his/her *hukou* status. Although such information was not directly collected in the survey used here, the timing of *hukou* change can be imputed on the basis of *hukou* regulations, available information on the respondent's occupational and educational history (discussed in detail below), and information on when the respondent moved to the village, town, or city where s/he currently resides. The time that the respondent changed *hukou* is coded into five periods. Period I (1955-58) is the initial stage, during which the *hukou* system emerged as the government's main way of coping with labor mobility in the course of industrialization. Although the *hukou* system was installed in 1955, during this period rural peasants could still move into cities without official government approval. In 1959, to prevent peasants from inundating cities as they did during the Great Leap Forward, the Chinese government started implementing a restrictive *hukou* policy. Therefore, during Period II (1959-65) we expect a significantly lower rate of *hukou* mobility than in the previous period. Period III (1966-76) covers the period of the Cultural Revolution. Even though the political system was thrown into chaos during the Cultural Revolution, the *hukou* system remained quite stable.[17] Although thousands of urban youth were sent to rural

[17] However, the *hukou* regulations were not completely static but changed somewhat over time. In June 1955, the State Council issued "*Instructions on the Establishment of Permanent Household Registration System*." In January, 1958, the Standing Committee of the National People's Congress passed the "*PRC's Household Registration Law*." In 1964, the Ministry of Public Security forwarded the policy of "two tough constraints" on the movement from countryside to cities and from small towns to cities (Chan and Zhang 1999; Wang Q. 1994, p. 39).

areas, most of them eventually resumed their urban status (see note 5); thus they are not included in our analysis of *hukou* conversion. Period IV (1977-86) is the early stage of economic reform. Despite partial reform in the economic sphere, the rigid *hukou* system remained unchanged. Period V (1987-96) is a time of deepening reform during which the *hukou* system was relaxed to some extent. The quota on urban *hukou* conversions increased, as educational expansion and urbanization provided more vacancies for people of rural origins. Moreover, for the first time since the 1950s, peasants were allowed to enter cities without an urban *hukou* to provide services for urban residents (Chan and Zhang 1999).

$ *Birth cohort* is included as a set of dummy variables (1927-36, 1937-46, 1947-56, 1957-66, and 1967-76) in the binomial logit analysis to ensure that changes over time in the distribution and effects of other variables do not distort estimates of the effect of *hukou* status.

$ *Age* is included as a set of dummy variables (14-19 [the reference category], 20-25, 26-31, 32-40, and 41-60) in the hazard-rate analysis to distinguish between age and period effects on the likelihood of *hukou* conversion. We make the intervals shorter at the beginning of the career because we expect age effects to change most rapidly then. Table 1 presents descriptive statistics for these variables.

Using the full sample, we first examine how *hukou* origin shapes chances for access to education and party membership, respectively. We then investigate the determinants of rural-to-urban *hukou* mobility for the rural-origin population. Given the sample design, respondents were selected from households with different numbers of adults; moreover, the current urban and rural

populations were sampled at different rates. Thus, to render our data representative of the adult population of China we apply a case weight, the inverse of the probability that an individual was selected, both for the descriptive statistics and for the model estimation. Except where otherwise indicated, all analyses are conducted using Stata 7.0's estimation commands, computing robust standard errors to correct for clustering in the sample (StataCorp 2001).[18] To study the effect of *hukou* origin on education we predict total years of school completed, via OLS regression, and also education progression ratios (Mare 1980). For the attainment of party membership and urban *hukou* status we estimate binary logit models. To address the temporal trend in *hukou* mobility, we estimate discrete-time hazard-rate models.

RURAL-URBAN DIFFERENCES IN LIFE CHANCES

Many studies have shown that both educational and political credentials are significant facilitators of social mobility in China (Shirk 1982, 1984; Unger 1982; Walder 1995; Walder, Li, and Treiman 2000; Li and Walder 2001). However, access to these resources disproportionately favors people with urban *hukou* status. In this sense, education and political credentials act as important mechanisms of social reproduction as well as playing a major role in promoting *hukou* mobility.

Hukou **Origin and Educational Attainment**

[18] We initially used Stata's survey estimation commands to take advantage of the fact that our sample is stratified as well as clustered. However, although the full sample design included two primary sampling units (PSU's) per stratum, for some analyses based on subsets of cases we had data for only one PSU per stratum, which is not permitted by Stata. Thus, we adopted the more conservative approach of computing robust standard errors that take account of the clustering of the sample—conservative because such standard errors generally will be larger than those produced by Stata's corresponding survey estimation procedures, although usually not by much.

Admission to specialized secondary schools and tertiary institutions is based primarily on competitive examinations. Thus, education at this level is in principle equally available to all Chinese citizens, depending only on their individual merits. However, "equal" opportunity in education has always produced dramatically unequal outcomes between rural and urban *hukou* holders.

As Table 1 shows, as of 1996 Chinese adults from rural origins averaged only 5.8 years of schooling compared to 9.2 years for people from urban origins. Since tertiary and specialized secondary education qualify rural residents for urban *hukou*, the factors affecting attainment of these levels of education are of particular interest, particularly the effect of *hukou* at age 14 net of other factors. To assess this, we estimated both an OLS model of highest level of educational attainment and a progression-ratio model of the odds of completing successive levels of education given completion of the previous level. For both models the predictors are *hukou* status at age 14, parental education, parental occupation when the respondent was age 14, gender, and 10-year birth cohort. We include gender because in China men have greater opportunities than do women (Hannum and Xie 1994). We include birth cohorts because educational opportunities in China, in common with most other nations, have expanded throughout the 20th century (Deng and Treiman 1997).

Table 2 presents the coefficients for the model. Consider the OLS regression first. All net effects are as expected, and all are substantial: each year of parental schooling increases the expected years of schooling of respondents by nearly a quarter of a year; the children of parents

with high-status jobs go further in school;[19] men average two years more schooling than women; the level of schooling increases monotonically over time; and, central to our concern here, having an urban *hukou* at age 14 also results in two years of additional schooling. That is, respondents who are lucky enough to have born into urban families average two years more schooling than otherwise identical people (with respect to gender, birth cohort, parental education, and parental occupation). These factors have generally similar effects on the log odds of making the transition from junior high school to academic senior high school, from junior high school to specialized/vocational high school, and from academic high school to tertiary education, although males lose their advantage in the transition to specialized/vocational school and to college and, net of other factors, the odds of graduating from academic secondary school, given that one has completed junior high school increase over time while the corresponding conditional odds of graduating from specialized/vocational school and college decline over time (the coefficients for the youngest birth cohort, age 20-29 at the time of the survey, should not be taken too seriously because many of these respondents were still in school). The findings regarding parental status are consistent with what is known about educational attainment throughout the world B that is, educational attainment is substantially correlated with parental socioeconomic status net of other factors (Mare 1980; Ganzeboom and Treiman 1993; Shavit and Blossfeld 1993; Treiman and Yip 1989; Rijken 1999).

However, children from rural families are handicapped in educational attainment due *not* simply to their parents' lower educational and occupational status but also, and substantially, as a

[19] This effect is quite large. The coefficient of .0296 implies, for example, that net of all other factors the children of skilled workers (ISEI=43) will average nearly half a year more schooling than the children of semi-skilled workers (ISEI=28) B precisely, .44=.0296*15.

result of their *hukou* status *per se.* For each transition, those with an urban *hukou* have a large advantage: their odds of graduating from both academic senior high school and specialized/vocational school, given junior high school graduation, are nearly twice the odds of their rural counterparts; and the corresponding odds ratio for college graduation given senior high school graduation is 1.6. In sum, net of other factors, rural *hukou* status renders a person strongly disadvantaged in acquiring the educational credentials necessary for upward social mobility.

People from rural origins are educationally handicapped both by the inferior quality and limited number of available schools and by explicitly discriminatory state policy. Schools, especially high-quality schools, are generally concentrated in cities, and are not accessible to students lacking a local *hukou*. In addition, admission policies often discriminate against rural students as well. The threshold for admission to specialized secondary schools is usually set lower for urban students than rural ones (see note 10). Provincial quotas are usually set for admission to tertiary institutions, but students registered in the city where the institution is located enjoy an additional advantage. Thus, for example, a Beijing *hukou* holder can gain admission to a local college or university with a lower score on the National College Entrance Examination than could an outsider, despite the fact that the universities are administered by the national government rather than the Beijing city government. Discrimination in favor of local residents is particularly egregious in Beijing, because so many tertiary institutions, including a large fraction of the best, are located in Beijing; but the phenomenon is nationwide and has the effect of favoring students with urban *hukou*.

Hukou Origin and Party Membership Attainment

The chance of acquiring political credentials is also limited for people of rural *hukou* origin. Although the Communist Party relied on the peasants' support to defeat the Nationalist Government and to gain power, after the founding of the PRC it focused more actively on recruiting members and building up grass-roots organizations in urban than in rural areas. Thus, most people living in rural areas, but especially peasants, had little chance to join the party. To examine rural-urban difference in access to party membership, we estimate a binomial logistic regression model of the odds of current party membership. In addition to *hukou* at age 14, we include as control variables parental party membership, military experience, gender, and birth cohort.

Table 3 shows the estimated coefficients. As expected, *hukou* origin has a substantial net impact on the odds of becoming a member of the party; the odds for those of urban origin are about 2.2 times the odds for those of rural origin. In addition, unsurprisingly, the net odds that children of party members become party members are also more than twice the odds for the children of nonmembers; and the odds for men are about four times the odds for women. As expected from our previous discussion of the role of the People's Liberation Army as an upward mobility vehicle, the odds that PLA members subsequently become party members are far higher than for others - about 18 times as great.[20] Finally, the odds of becoming a party member systematically decline for successive cohorts, probably due to a combination of an age effect (people are invited to join the party at various ages, extending well into their 40s) and a cohort effect (party membership has become less popular as a means to social mobility since the

[20] No one in our sample joined the PLA after becoming a party member.

beginning of the reform period). From the analysis reported in Table 2 we cannot distinguish between the two.

To recapitulate, while educational and political credentials may facilitate *hukou* mobility (the topic we take up next), access to these credentials is substantially more restricted for rural-origin than urban-origin people.

GAINING URBAN STATUS: A PRELIMINARY ANALYSIS

Given that educational and political credentials serve as important channels for rural-to-urban status mobility but that access to these credentials is severely restricted for those from rural origins, how likely is it that rural people can convert their rural *hukou* to an urban *hukou*, and what factors are most important? To determine this, and specifically to test the six hypotheses proposed above, we restrict our analysis to the rural-origin population with complete data (n = 4,127)[21], and estimate a model of the odds of attaining an urban *hukou*. Six independent variables pertinent to these hypotheses are included in the model: education, party membership, military experience, gender, parental party membership, and whether the father was employed in a state work unit when the respondent was age 14. In addition, five 10-year birth cohorts are included as controls. Descriptive statistics for both the dependent and independent variables are presented in Column 2 of Table 1.

[21] As noted above, some of those from rural origins are lucky enough to gain urban *hukou* status due to the incorporation of their villages into towns or cities (Chan 1994, p. 77). Since these cases are not pertinent to our analysis of the individual factors promoting *hukou* change, they should be excluded from our analysis. While we do not have direct information on "passive" *hukou* change, we can approximate it by excluding the 216 people who changed *hukou* since age 14 without changing place of residence. As it happens, whether or not these cases are excluded has little impact on the results. Still, we report the coefficients for estimates that omit the 216 cases.

Table 4 presents the coefficients for two binomial logistic regression models of *hukou* mobility. Model 1 estimates the odds of acquiring an urban *hukou* as a function of those variables thought to directly affect the odds: educational level, party membership, and military experience.[22] Model 2 adds those variables thought to indirectly affect the odds of *hukou* mobility: gender and family background, plus birth cohort. Results from both Model 1 and Model 2 strongly support Hypotheses 1-3. First, as expected, given regulations that normally grant urban *hukou* status upon enrollment in vocational/specialized schools or tertiary institutions, the effects of these levels of education are very strong - although much stronger for tertiary education than for vocational education (the odds multipliers for vocational/specialized education are more than 8 for Model 1 and more than 10 for Model 2, and the corresponding odds multipliers for tertiary education are 46 and 84). This probably reflects the fact that in the Chinese *hukou* system, but unfortunately not in our data (and, oddly, not in most Chinese statistical compilations either), a distinction is made between vocational and specialized technical school, with only the latter routinely leading to urban *hukou* status. Also, despite the fact that those who complete academic senior high school but fail to enter tertiary institutions are supposed to return to their rural villages, the odds of such graduates eventually attaining an urban *hukou* are about 22 times the odds for those with less education in Model 1 and more than 4 times in Model 2.

Second, both party membership and military service sharply improve the odds of obtaining urban registration. Net of other factors, the odds that party members attain urban status

[22] Although it is possible that people complete their education or join the party after gaining urban registration, it is clear that for most people *hukou* conversion is a consequence rather than a determinant of educational and political credentials. Still, in the next section we will carry out an event history analysis to settle this issue definitively.

are more than 4 times the odds for non-members in Model 1 and a little less than 4 in Model 2, and the odds for those with military experience are nearly 5 times the odds for those lacking military experience in Model 1 and nearly 7 times in Model 2. Although we posited a process in which young people join the PLA and while enlisted join the communist party, thereby improving their odds of achieving urban status, it is clear from the analysis that PLA experience *independently* enhances the likelihood of achieving urban registration, probably through improved chances of being assigned a job in an urban area at demobilization.

Third, contrary to Hypothesis 4, men are less likely than women to obtain urban status net of other factors; the odds multiplier in Model 2 is .46. As we have seen, women are disadvantaged in obtaining education and party membership, crucial facilitators of mobility from rural to urban *hukou* status. They also are far less likely to join the military (in our data no women have military experience). Thus, rural-origin women are less likely than rural-origin men to attain urban registration via these mechanisms. And marriage to an urban resident is not a basis for *hukou* conversion. However, it turns out that rural-origin women are about as likely as rural-origin men to obtain an urban *hukou* - 10.8 percent of women did so compared to 11.8 percent of men -- and about twice as likely to obtain an urban *hukou* net of education, party membership, and military service.

Fourth, consistent with Hypothesis 5, parental party membership during childhood increased the odds that rural-origin respondents would obtain urban status, net of all other factors (the odds multiplier is 1.6). Thus, while parental political credentials *indirectly* influence children's chances of obtaining urban status through their positive influence on children's becoming party members, joining the military, and enrolling in higher education, they also

directly influence children's chances, presumably because they permit parents to exploit special opportunities for their children, such as recruitment of rural youth for jobs that carry urban status.

Finally, consistent with Hypothesis 6, the nine percent of rural-origin people whose fathers were employed in state enterprises when the respondents were growing up had substantially greater odds of acquiring urban status, net of other factors (the odds multiplier is 2.4).

We included one set of variables in the analysis for which we did not develop explicit hypotheses B birth cohort. It turns out, however, that the net odds of gaining urban *hukou* status systematically declines for successive 10-year birth cohorts, albeit with the largest decline between the oldest and next oldest cohort. The result is that, net of other factors, the odds that our youngest respondents gained an urban *hukou* by the time of the survey are only about 11 percent as large as the corresponding odds for the oldest cohort. The interpretation of this result is somewhat problematic. While we are inclined to interpret the result as a period effect - a decline over time in the odds of converting a rural to an urban *hukou* as government policies became more stringent - it could be argued that what we observe reflects continuing opportunities to obtain an urban *hukou* over the life course and thus a conversion rate that increases with age. To definitively settle the issue requires a way to disentangle the effects of age and period, which we accomplish via a discrete-time hazard-rate (event history) analysis.

TEMPORAL TRENDS IN *HUKOU* MOBILITY RATES: AN EVENT HISTORY ANALYSIS

A discrete-time hazard-rate analysis of the determinants of *hukou* conversion in the rural-origin population will allow us both to pin down the temporal order of *hukou* conversion relative to education and communist party membership and to adjudicate between age effect and period effect interpretations of the observed negative relationship between year of birth and the rate of *hukou* conversion. This analysis is complicated by the fact that the 1996 Life History survey did not collect information on the timing of *hukou* conversion - that is, no question was asked about the year in which respondents acquired urban status. We imputed the year of *hukou* conversion in two ways, taking into account regulations regarding *hukou* conversion and using information in the survey on respondents' educational and occupational histories, plus limited information on residential mobility.

Our first imputation method was to use the year successful converters moved to their current place of residence. This strategy has two potential problems. First, the date of *hukou* conversion could be overstated for those who moved from one locale (village, town, or city) to another once since age 14. However, since residential mobility has been extremely limited in China since the 1950s, we can reasonably assume that most successful *hukou* converters still live in the city or town in which they obtained urban residence.[23] The exception is college graduates,

[23] Some indirect support for this claim can be found in the low level of job mobility among urban workers. In the 1996 data, 40 percent of those in the urban sample had never changed jobs. On average, urban residents had worked at 2.2 jobs (which meant that they changed jobs an average of 1.2 times), a pattern similar to that shown in data collected in the 1980s (Walder 1992, Wang Q 1994). It is probable that the bulk of these job changes were to other jobs within the same work unit (*danwei*) or to other work units within the same town or city (Wu 2001, Ch. 4, note 5).

who generally obtain urban *hukou* status upon matriculation but might relocate after graduation (see below).

The second issue is that we have no basis for computing the year of *hukou* conversion for those who changed their *hukou* without changing their city, town, or village of residence. However, this actually is not a problem because we would want to exclude these people anyway, as we did in the analysis reported in Table 4, because it is probable that most of them gained urban status by the incorporation of their village into a town or city rather than through their own effort.[24]

Our second method of imputing the year of *hukou* conversion was possible only for college graduates. For these, we use the survey's educational history data and impute the year of *hukou* conversion as the year of college admission. According to the Chinese college admission policy, a student's *hukou* is transferred from his or her home town to the college upon admission. After graduation, the *hukou* is again transferred to the locale of the work unit to which s/he is assigned. However, even if graduates fail to find jobs, their urban status is maintained and it remains the obligation of the local authorities in the place where they were originally from to find them jobs.

Following these two rules, we were able to impute a year of *hukou* change for all people who changed their *hukou* and also their place of residence between age 14 and the date of the survey. Although the year of imputed change ranges from 1939 to 1996, we omitted those who

[24] Of course, by omitting the 216 people who changed *hukou* without changing residence, we also omit those who might have converted their *hukou* on the basis of their own accomplishments, e.g., the 20 people who attained specialized or tertiary education. But for these people we have no way of determining whether their *hukou* conversion preceded, and hence enhanced the probability of, their matriculation.

moved into urban areas prior to 1955 since prior to then there was essentially no government regulation of migration from rural to urban areas; those residing in urban areas in 1955, when the *hukou* system was established, were automatically granted urban status. We thus restrict our analysis to the years between 1955 and 1996 and to those "at risk" of acquiring urban status in each year beginning in 1955. People are regarded as "at risk" if they had not yet acquired urban status and had not yet reached retirement age (60 for men and 55 for women). Those who had not yet acquired urban status nor retired by the year of the survey are right-censored.

With information on the timing of *hukou* change, as well as the timing of joining the communist party and achieving particular levels of education, a discrete-time hazard-rate model of the likelihood of *hukou* conversion at each year of risk can be estimated via conventional procedures for estimating binomial logit models (Allison 1984; Yamaguchi 1991). The structure of the input data, however, differs from that of a conventional logit model. While in conventional logit models the unit of analysis is the respondent, discrete-time hazard-rate models are estimated by constructing a data set of person-years at risk. In our analysis, each person with a rural *hukou* at age 14 (or rural residence in 1954 if born prior to 1941) was initially exposed to the risk of changing *hukou* either in 1955, if born prior to 1941, or in the year after s/he reached age 14. Then for each subsequent year, if the person acquired an urban *hukou* s/he was dropped from the data set for the following years. In addition, people not obtaining an urban *hukou* by retirement age (60 for males and 55 for females) were dropped from the data set for that and all subsequent ages.

Figure 2 plots the hazard rate of *hukou* conversion (the percentage gaining an urban *hukou* among those at risk) between 1955 and1996 without controlling any covariates. Over the

40 years since the *hukou* system was established, the trend of social mobility from rural to urban status is generally consistent with the historical evolution of the *hukou* system. In the second half of the1950s when the *hukou* system was first being established, the rate of *hukou* conversion was very high, approaching 4 percent. In 1959 the conversion rate dropped precipitously as a result of government intervention, and by the early 1960s when a very restrictive policy was fully implemented, the conversion rate fell to less than 1 percent. [25]

The dependent variable is whether a respondent changed *hukou* status in the year to which an observation refers. The independent variables include all of those used in the analysis reported in Table 4, except that the 10-year birth cohorts are replaced by a set of dummy variables to model age effects and a set of dummy variables is included to model period effects (see the discussion in the "Variables" section above). However, here education, party membership, and military experience are treated as time-varying covariates; that is, they are set at their values for each year at risk. Thus, in each year education is represented by the highest level of education achieved. However, academic and vocational high school education are regarded as achieved by successful graduation since, except for the subset of vocational/specialized high school students who were enrolled in specialized schools, high school matriculation did not automatically result in *hukou* conversion. Tertiary education, by contrast, is regarded as achieved in the year of matriculation, which automatically resulted in *hukou* conversion.[26] Military service is treated the

[25] . One may be surprised to see that the conversion rate has not risen substantially in the reform era. Yet the statistical records the first author collected the township shows that, even in the year of 2001, the *hukou* conversion rate is only 1.03% (176 out of 17038) (see footnote 14), consistent with the event historical data we have constructed here.

[26] It should be noted that in China virtually no one who matriculates at senior high schools or tertiary institutions fails to graduate, in stark contrast to the U.S.

same way as high school: respondents are regarded as having military service as of the year they leave the military, since the main advantage of military service is in increasing the chance of being assigned an urban job after service is completed. Finally, respondents are regarded as communist party members as of the year they joined the party. Whether at least one parent was a member of the communist party and whether the father was employed in a state work unit are treated as time-constant variables and refer to when the respondent was age 14.

Table 5 presents logits and odds multipliers for a model of the likelihood of *hukou* conversion for those at risk in each year from 1955-1996. As before, Model 1 includes only the variables thought to directly facilitate *hukou* conversion: education, communist party membership, and military experience, while Model 2 includes as well all the variables thought to have an indirect effect plus the control variables. These results are generally consistent with those reported in Table 4, with only two exceptions. Military service proves not to have a significant effect on *hukou* conversion in the hazard-rate model, although the odds more than double relative to those lacking military service. The large standard errors associated with the coefficients for military service probably reflect both the fact that it is a rare event - few people join the People's Liberation Army - and that the advantage of military service only pertains to the first job after leaving service. Those who are unsuccessful in getting an urban job when they leave the armed forces have no further way of taking advantage of their veteran status. Parental party membership also proves to be non-significant in the hazard-rate models, perhaps because it, too, is only helpful at the beginning of the career.

Apart from these two exceptions, the corresponding variables appear to behave in quite a similar way in whether *hukou* conversion is treated as a single outcome and no account is taken

of censoring, as in Table 4, or whether the odds are computed year-by-year for those still at risk. If anything, the effects are stronger in the hazard-rate version: as in most other societies, education is the primary vehicle for upward mobility, in this case from rural to urban residential status; and, as in most communist societies, political credentials in the form of party membership play a strong independent role in enhancing upward mobility; finally, having a father who is employed in a state-owned work-unit creates an even stronger advantage in the hazard-rate analysis than in the Table 4 analysis. The fact that the effects of education and communist party membership hold up, or become even stronger, in the hazard-rate analysis strongly suggests that the results in Table 4 are not subject to much endogeneity bias. Conversely, the similarity in the results provides assurance that we have not gone far wrong in our imputation of the year of *hukou* conversion. Together, the two complementary analyses suggest that our key results are quite robust.

A distinctive feature of the hazard-rate analysis is that we are able to distinguish period effects from age effects, through the introduction of a set of dummy variables for each factor. The presence of both sets of variables in a single model greatly clarifies the interpretation of each set. The results for period strikingly mirror those reported in Fig. 2 - although established in 1955, the *hukou* system did not begin to operate in an effective way until around 1959, at the end of the disastrous Great Leap Forward. At that point *hukou* conversion became much more difficult - the net odds of conversion dropping to about a quarter what they were in the first period, and then dropping again to about 15 percent of the odds in the first period. Despite the increasing tolerance of informal migrants to urban areas, the state has in no way relaxed its stringent requirements for obtaining formal urban residential status and has, if anything,

tightened them. Interestingly, despite the vicissitudes of state policy, including especially the politicization of everyday life during the Cultural Revolution, there appear to be no significant differences in the odds of *hukou* conversion from 1955 on. [27]

Finally, the effect of age is also now clear -- unsurprisingly, *hukou* conversion is a young person's game: the odds of *hukou* conversion peak at ages 20-25, when they are nearly twice as large as for ages 14-19 and about twice as large as the odds for the three older age categories.

CONCLUSIONS AND DISCUSSION

In this paper we examined the determinants of mobility from rural to urban status, first by estimating a binomial logit model of whether *hukou* conversion had been achieved by the time of the survey and then by estimating a discrete-time hazard-rate model. Our hypotheses regarding the role of educational and political credentials are generally supported in both analyses, and hold up when various controls are introduced. Education (particularly specialized secondary or tertiary education) strongly increases the odds that those from rural origins can obtain urban status. This is in stark contrast to the findings that education has either small or insignificant effect on rural-urban spontaneous migration in reform-era China (Mallee 1996; Meng 1996; Rozelle et. al. 1999). Communist Party membership also substantially increases the odds of *hukou* conversion, although not as much as education. The results for military experience are mixed. The cross-sectional model shows a strong effect of military experience but the hazard-rate model does not,

[27] We also have tested whether the effects of education and party membership vary across different periods (in particular, the possibility that the effect of education decreased and the effect of party membership increased during the Cultural Revolution period) by including interactions terms between education and period, and party membership and period, respectively. None of them is statistically significant. Results are available from the first author upon request.

perhaps because military experience is only directly effective at the time of completion of service, enhancing the chance of being assigned to an urban job. If such an assignment is not offered, there are no further chances to exploit military service. However, military experience also is indirectly beneficial, by enhancing the odds of joining the Communist Party. All in all, these three credentials - education, party membership, and military service, can be viewed as resources, or "capital," that facilitate *hukou* mobility under the socialist regime.

However, access to these resources is constrained by family background, including *hukou* origin. Coming from a rural family significantly decreases educational attainment and also the chance of gaining party membership. By contrast, even in rural areas parental party membership enhances the odds of being able to join the party and thus indirectly the odds of gaining urban *hukou* status. In addition, rural respondents whose fathers work in state work units have a substantial advantage in gaining urban status, presumably because of enhanced information and special opportunities that can be exploited by the father for the benefit of his children. The sole hypothesis that was not supported was our expectation that, net of other factors, rural-origin men would be more successful in converting their *hukou* status than would rural-origin women. Rural men and women are about equally likely to obtain urban *hukou* status, but women are less likely to attain high education, become communist party members, or join the military. Thus, controlling for these factors, women are *more* likely than men to successfully convert their *hukou*. We have no explanation for this.

Finally, we have shown both strong period effects-severe tightening of the *hukou* system after the Great Leap Forward and subsequent maintenance of a very low rate of *hukou* conversion

through 1996, the data of the survey-and strong age effects, with successful *hukou* conversion peaking between age 20 and 24.

The above findings have many implications for studying social mobility in state socialist China, where rural and urban societies are largely segmented. Early studies of social mobility and status attainment in China, which relied primarily on the information collected from refugees who had left the country (Parish 1984; Whyte 1975; Whyte and Parish 1984; Walder 1986) or on survey data from selected cities (Bian 1994a; Lin and Bian 1991), found a high rate of inter-generational mobility. Parish and Whyte (1984) reported that the effect of parental status on their children's educational and occupational attainment had been waning since 1966. The claim was that as a result of the Cultural Revolution, the effect of social origins on status attainment had become considerably weaker or entirely insignificant (Parish 1984; Whyte and Parish 1984). Blau and Ruan (1990), using data from Tianjin, China's third largest city, reached a similar conclusionBthat parental status did not directly affect occupational status and that the zero-order association between parent's and offspring's occupational status was even weaker than in the United States. These results led to the claim that China was an exceptionally "open" society in which state egalitarian policies effectively eliminated inherited class privileges.

The open-society claim, interestingly, won little support from Chinese scholars, who posited that China under socialism was an immobile society with high inheritance, and that its social stratification system was built upon a set of concrete institutional arrangements such as the household registration (*hukou*) and work unit (*danwei*) systems, which blocked mobility, both inter-generationally and intra-generationally (Li Q. 1993; Li L. and Wang F. 1992). While it was easy to minimize income inequality in a redistributive economy, equal opportunities to all

Chinese citizens had never been a reality. Instead, to concentrate resources in order to achieve rapid industrialization, the Chinese communist government deliberately created a stratification system that allocated opportunities unequally to different social classes in accordance with its redistributive goals.

Hence, the evidence of weak inter-generational associations for occupational status and income in urban areas as support for the claim of "societal openness" may be subject to reinterpretation and criticism. Inequalities existed in China and Eastern Europe, but were governed by mechanisms different from those in Western societies (Szelenyi 1978, 1983). Status inheritance may be also subject to such distinctive mechanisms. Indeed, Lin and Bian (1991) offered an alternative explanation for the seemingly weak association between parental occupational status and status attainment in urban China (Tianjin). They suspected that occupational status might not be the most appropriate measure of social status in Chinese urban society. Instead, they proposed, work-unit attainment was more important as a determinant of life chances. Their results (see also Bian 1994a) showed that parents' work-unit status had a strong direct effect on their offspring's work-unit status, implying relatively low inter-generational mobility with respect to a central stratifying variable in the Chinese context.

This paper has suggested another institutional mechanism that functions mainly as a device for social reproduction rather than social mobility-registration (*hukou*) status. We have noted that the distinction between rural and urban registration status is enormous in terms of level of living and life chances and we have shown in our analysis that rural people have far smaller chances than do urban people for education and communist party membership, two crucial determinants of socioeconomic opportunity in China. We also have shown that changes

from urban to rural registration status are extremely rare and changes from rural to urban status uncommon, with only about 11 percent of the rural origin population having achieved urban status as individuals (as opposed to the reclassification of suburban villages as parts of cities). Thus, with respect to what is arguably the most important determinant of life chances in socialist China, we see a society that is far from open.

Moreover, the very fact that urban *hukou* status is so difficult to achieve for those of rural origin, and is so selective of the best and the brightest of the rural population, provides a possible explanation for the weak association between parents' and children's occupational status in urban areas. Although only a small fraction of the rural population achieves urban status, they constitute a substantial fraction of the urban population because of the fact that the urban population is much smaller than the rural population-ranging from about 20 percent of the total when the *hukou* system was established in 1955 to nearly 30 percent by 1996. Thus, the urban population includes both those who were born into urban families (or whose villages were incorporated into towns and cities) and those from peasant origins who acquired urban status through their own efforts and hence achieved extremely high-status urban occupations. The extreme upward mobility of the latter group clearly has the effect of reducing the inter-generational occupational status correlation.

An important implication of our analysis is that status attainment and social mobility research based on urban samples (or rural samples, although this is uncommon) makes little sense, since it is likely to be subject to severe selection bias (Winship and Mare 1992). Analysis of truly national probability samples, with rural and urban components analyzed together, is a

necessary condition for valid findings regarding the extent of social mobility and "societal openness".

To our knowledge, Cheng and Dai (1996) was the first attempt in this direction. Using pooled rural and urban data from six provinces, they found a high rate of inter-generational immobility in the Chinese working population, thus undercutting the claim of the creation of an egalitarian and open society by the Chinese socialist regime. However, despite the inclusion of both rural and urban samples, Cheng and Dai's data are hardly representative of the nation. Moreover, they did not consider the role of the *hukou* system as a barrier to mobility between the rural and urban sectors. Future research on social mobility in China would do well to take *hukou* mobility as part of its agenda.

REFERENCES

Allison, Paul D. 1984. *Event History Analysis*. Beverly Hills, CA: Sage Publications.

Banister, Judith. 1997. "China: Internal and Regional Migration Trends." Pp. 72-97 in *Floating Population and Migration in China: The Impact of Economic Reforms,* edited by Thomas Scharping. Hamburg: Institut Fuer Asienkunde.

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

Bian, Yanjie. 1994b. "*Guanxi* and the Allocation of Jobs in Urban China." *The China Quarterly* 140:71-99.

Bian, Yanjie, and John Logan. 1996. "Market Transition and Persistence of Power: The Changing Stratification System in Urban China." *American Sociological Review* 61:739-58.

Blau, Peter M., and Danqing Ruan. 1990. "Inequality of Opportunity in Urban China and America." *Research in Stratification and Mobility* 9:3-32.

Chan, Kam Wing. 1994a. "Urbanization and Rural-urban Migration in China since 1982: A New Baseline." *Modern China* 20:243-281.

Chan, Kam Wing.1994b. *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* 160:818-855.

Chang, Jung. 1991. *Wild Swans: Three Daughters of China*. New York: Simon & Schuster.

Cheng, Tiejun, and Mark Selden. 1994. "The Origins and Social Consequences of China's *Hukou* System." *The China Quarterly* 139:644-668.

Cheng, Yuan, and Jianzhong Dai. 1995. "Inter-generational Mobility in Modern China." *European Sociological Review* 11:17-36.

Christiansen, Flemming. 1990. "Social Division and Peasant Mobility in Mainland China: The Implications of *Hukou* System." *Issues and Studies* 26:78-91.

Christiansen, Flemming. 1992. “Market Transition in China: The Case of the Jiangsu Labor Market 1978-1990.” *Modern China* 18:72-95.

Deng, Zhong. 1993. *Status Attainment in China, 1949-1982.* Unpublished Ph.D. Dissertation, Department of Sociology, University of California at Los Angeles.

Deng, Zhong, and Donald J. Treiman. 1997. “The Impact of the Cultural Revolution on Trends in Educational Attainment in the People's Republic of China.” *American Journal of Sociology* 103:391-428.

Dutton, M. R. 1992. *Policies and Punishment in China.* Cambridge: Cambridge University Press.

Ganzeboom, Harry B. G., and Donald J. Treiman. 1993. “Preliminary Results on Educational Expansion and Educational Achievement in Comparative Perspective.” Pp. 467-506 in *Solidarity of Generations: Demographic, Economic and Social Change, and Its Consequences*, edited by Henk A. Becker and Piet L. J. Hermkens. Amsterdam: Thesis Publishers.

Gerber, Theodore. 2000. “It’s Where You Live: Regional Dimension of Post-Soviet Stratification.” Paper presented to the UCLA Social Comparative Analysis Workshop.

Gao, Qi 1985. *Dangdai Zhongguo Jiaoyu Shi* (*The History of Contemporary Chinese Education*). Beijing: Beijing Normal University Press. [in Chinese].

Griffin, Keith and Renwei Zhao. 1993. *The Distribution of Income in China*. London: Macmillan.

Hannum, Emily and Yu Xie. 1994. “Trends in Educational Gender Inequality in China: 1949-1985.” *Research in Social Stratification and Social Mobility* 13:73-98.

Kim, Won Bae. 1990. “Population Redistribution Policy in China: A Review.” *Regional Development Dialogue* 11:159-87.

Knight, John, and Lina Song. 1999. *The Rural-Urban Divide: Economic Disparities and Interactions in China*. Oxford: Oxford University Press.

Li, Bobai, and Andrew G. Walder. 2001. “Career Advancement as Party Patronage: Sponsored Mobility into the Chinese Administrative Elite, 1949-1996.” *American Journal of Sociology* 106:1371-1408.

Li, Lulu, and Fenyu 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 Chubanshe. [in Chinese]

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

Lin, Justin Y., Fang Cai, and Zhou Li. 1994. *Zhongguo de Qiji: Fanzhan Zhanlue yu Jingjin Gaige* (*China's Miracle: Development Strategy and Economic Reform*). Shanghai: Sanlian Chubanshe. [in Chinese]

Lin, Nan, and Yanjie Bian. 1991. "Getting Ahead in Urban China." *American Journal of Sociology* 97:657-88.

Logan, John R. 1975. "Growth, Politics, and the Stratification of Places." *American Journal of Sociology* 84:404-15.

Logan, John R., and Harvey L. Molotch. 1987. *Urban Fortunates: The Political Economy of Place*. Berkeley and Los Angeles: University of California Press.

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

Mare, Robert. 1980. "Social Background and School Continuation Decisions." *Journal of the American Statistical Association* 75:295-305.

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

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

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, 1996.

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

Nee, Victor. 1996. "The Emergence of a Market Society: Changing Mechanisms of Stratification in China." *American Journal of Sociology* 101:908-49.

Meisner, Maurice. 1999. *Mao's China and After: A History of People's Republic*. New York: Free Press.

Parish, William L., and Martin King Whyte. 1978. "Collective Agricultural Organization." Ch. 4 in *Village and Family in Contemporary China*. University of Chicago Press.

Parish, William L. 1984. “Destratification in China.” Pp.84-120 in *Class and Social Stratification in Post-revolution China,* edited by James Watson. London and New York: Cambridge University Press.

Parish, William L., and Ethan Michelson. 1996. “Politics and Markets: Dual Transformations.” *American Journal of Sociology* 101:1042-59.

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

Rijken, Suzanne. 1999. *Educational Expansion and Status Attainment: A Cross-national and Over-time Comparison.* Utrecht, Netherlands: Interuniversity Center for Social Science Theory and Methodology.

Rozelle, Scott, Li Guo, Minggao Shen, Amelia Hughart and John Giles. 1999. “Leaving China’s Farms: Survey Results of New Paths and Remaining Hurdles to Rural Migration.” *The China Quarterly* 158:367-93.

Shavit, Yossi, and Hans-Peter Blossfeld (eds.). 1993. *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press.

Shirk, Susan L. 1982. *Competitive Comrades: Career Incentives and Student Strategies in China.* Berkeley and Los Angeles: University of California Press.

Shirk, Susan L. 1984. “The Decline of Virtuocracy in China.” Pp. 56-83 in *Class and Social Stratification in Post-Revolution China,* edited by James Watson. London and New York: Cambridge University Press.

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

South, Scott J., and Kyle D. Crowder. 1997. “Escaping Distressed Neighborhoods: Individual, Community, and Metropolitan Influences.” *American Journal of Sociology* 102:1040-84.

South, Scott J., and Kyle D. Crowder. 1998. “Leaving the ›Hood: Residential Mobility Between Black, White, and Integrated Neighborhoods.” *American Sociological Review* 63:17-26.

StataCorp. 2001. *Stata Statistical Software, Release 7.0.* Vol. 3. College Station, TX: Stata Corporation.

The State Council. 1957. *Guanyu Laodongli Tiaoji Gongzuo Zhong Jige Wenti de Tongzhi*. (*Notification on Several Issues in Allocating Labor Forces*). [in Chinese]

The State Council. 1986 [1958]. “Hukou Dengji Tiaoli” (AHousehold Registration Regulations@). Pp. 83-85 in *Zhongguo Renkou Nianjian 1985* (*Population Yearbook of China 1985*), edited

by Chinese Academy of Social Sciences. Beijing: Zhongguo Shehui Kexue Chubanshe. [in Chinese]

State Statistical Bureau (SSB). 1997. *China Labor Statistical Yearbook.* Beijing: China Statistical Press. [in Chinese]

State Statistical Bureau (SSB). 1998. *China Labor Statistical Yearbook.* Beijing: China Statistical Press. [in Chinese]

Szelenyi, Ivan. 1978. "Social Inequalities in State Socialist Redistributive Economies." *International Journal of Comparative Sociology* 19:63-87.

Szelenyi, Ivan. 1983. *Urban Inequalities under State Socialism*. Oxford: Oxford University Press.

Treiman, Donald J. 1970. "Industrialization and Social Stratification." Pp. 207-34 in *Social Stratification: Research and Theory for the 1970s*, edited by Edward O. Laumann. Indianapolis: Bobbs-Merrill.

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

Treiman, Donald J., and Kam-Bor Yip. 1989. "Educational and Occupational Attainment in 21 Countries." Pp.373-94 in *Cross-National Research in Sociology*, edited by Melvin L. Kohn. American Sociological Association Presidential Series. Newbury Park: Sage.

Treiman, Donald J., Willliam M. Mason, and William Lavely. 2001. "Determinants and Consequences of the Migration of Rural Chinese from Their Village of Origin.'' Paper presented at the the 2001 International Forum on Rural Labor Mobility in China, Beijing, 3-5 July.

Unger, Jonathan. 1982. *Education Under Mao: Class and Competition in Canton Schools 1960-1980.* New York: Columbia University Press.

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

Walder, Andrew G. 1990. "Economic Reform and Income Distribution in Tianjin, 1976-1986." Pp.135-56 in *Chinese Society on the Eve of Tiananmen: the Impact of Reform*, edited by Deborah Davis and Ezra F. Vogel. Cambridge MA: Harvard University Press.

Walder, Andrew G. 1992. "Property Rights and Stratification in Socialist Redistributive Economies." *American Sociological Review* 57:524-39.

Walder, Andrew G. 1995. "Career Mobility and the Communist Political Order." *American*

Sociological Review 60:309-28.

Walder, Andrew, Bobai Li and Donald J. Treiman. 2000. "Politics and Life Chances in a State Socialist Regime: Dual Career Paths into the Urban Chinese Elite, 1949- 1996." *American Sociological Review* 65:191-209.

Wang, Qi. 1994. *Job Change in Urban China: An Assessment of Socialist Employment Relationship*. Frankfurt am Main: Peter Lang.

Whyte, Martin K. 1975. "Inequality and Stratification in China." *The China Quarterly* 64:685-711.

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

Winship, Christopher, and Robert D. Mare. 1992. "Models for Sample Bias." *Annual Review of Sociology* 18:327-50.

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

Xie, Yu, and Emily Hannum. 1996. "Regional Variation in Earnings Inequality in Reform-Era Urban China." *American Journal of Sociology* 102:950-92.

Yamaguchi, Kazuo. 1991. *Event Historical Analysis.* Newbury Park, CA: Sage.

Zhou, Xueguang. 2000. "Economic Transformation and Income Inequality in Urban China." *American Journal of Sociology* 105:1135-74.

Zhou, Xueguang, and Liren Hou. 1999. "Children of the Cultural Revolution: The State and The Life Course in the People's Republic of China." *American Sociological Review* 64:12-36.

TABLE 1
Descriptive Statistics for Selected Variables by *Hukou* Origins, Chinese Adults Age 20-69 in 1996

	Overall	Rural Origins	Urban Origins
Dichotomous variables			
Junior high school or below	84.5%	90.0%	59.9%
Academic senior high school	7.6%	5.6%	16.7%
Vocational high school	4.6%	2.8%	12.6%
College	3.3%	1.7%	10.8%
Party member	9.3%	7.7%	16.8%
Urban origin	18.1%	-	-
Parent party member [a]	14.1%	11.3%	27.1%
Male	51.6%	51.5%	52.2%
Father in state work unit	21.2%	8.7%	52.5%
Military experience	.6%	.4%	1.2%
Year of birth: 1927-36	11.6%	11.2%	13.4%
Year of birth: 1937-46	16.7%	16.9%	15.9%
Year of birth: 1947-56	25.0%	25.9%	21.2%
Year of birth: 1957-66	23.2%	23.1%	24.1%
Year of birth: 1967-76	23.4%	23.0%	25.5%
Continuous variables	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)
Years of schooling	6.4 (4.1)	5.8 (4.0)	9.2 (3.7)
Parental occupation status [b]	23.9 (16.1)	20.5 (12.4)	45.3 (20.0)
Parental years of schooling [c]	3.2 (3.8)	2.7 (3.3)	5.8 (4.8)

[a] Scored 1 if either parent is a party member and 0 otherwise.
[b] When respondent was age 14. ISEI score (Ganzeboom et al. 1992) of parent with highest occupational status.
[c] Years of schooling of parent with highest years of schooling.

TABLE 2

Coefficients for Models of Level of Schooling and Educational Transition Ratios, Chinese Adults from Rural and Urban Origins 1996 (robust standard errors in parentheses).[a]

	Years of schooling	Senior High School [b]		Vocational School [c]		College [d]	
		b	e^b	b	e^b	b	e^b
Urban *hukou* at age 14	2.04	.589	1.80	.604	1.83	.443[h]	1.56
	(.19)	(.156)		(.080)		(.218)	
Parental schooling	.226	.0733	1.08	.0801	1.08	.0954	1.10
	(.033)	(.0192)		(.0165)		(.0260)	
Parental ISEI	.0296	.0092 [f]	1.01	.0250	1.02	-.0004 [h]	1.00
	(.0049)	(.0039)		(.0044)		(.0060)	
Male	1.91	.229 [f]	1.26	.010 [g]	1.01	.342 [h]	1.41
	(.15)	(.111)		(.130)		(.189)	
Birth cohort: 1937-46[e]	1.85	.569 [f]	1.77	-.506 [g]	.60	-1.109 [h]	.33
	(.23)	(.376)		(.313)		(.526)	
Birth cohort: 1947-56	2.52	.754 [f]	2.12	-1.644	.19	-2.112	.12
	(.23)	(.350)		(.297)		(.517)	
Birth cohort: 1957-66	4.22	1.371	3.94	-1.950	.14	-2.934	.05
	(.02)	(.320)		(.276)		(.484)	
Birth cohort: 1967-76	3.70	.302 [f]	1.35	-1.581	.21	-2.071	.13
	(.35)	(.333)		(.302)		(.516)	
Constant	.809	-3.166		-1.881		.326 [h]	
	(.234)	(.334)		(.313)		(.515)	
R^2	.357						
S.E.E.	3.31						
N	5,729	2,463		2,242		886	

[a] Except where noted, coefficients are significant at or beyond the .001 level.

[b] Log-odds of academic senior high school given junior high school completion.

[c] Log-odds of vocational/specialized high school given junior high school completion.

[d] Log-odds of tertiary education given academic or vocational/specialized completion.

[e] The omitted category is ABirth cohort: 1927-36@.

[f] Where marked, p-values, going down the column, are .018, .040, .131, .031, and .364.

[g] p-values are .939 and .106.

[h] p-values are .043, .941, .070, .035, and .527.

TABLE 3
Coefficients for a Binomial Logistic Regression Model of the Determinants of Communist Party Membership: Chinese Adults 1996 (N=6,087) (standard errors in parentheses)

	b	e^b
Urban *hukou* at age 14	0.902 (0.115)	2.464
Parent party member	0.863 (0.123)	2.370
Military experience	2.903 (0.534)	18.230
Male	1.402 (0.115)	4.061
Birth cohort: 1937-46 [a]	-0.345 [b] (0.158)	0.708
Birth cohort: 1947-56	-0.658 (0.166)	0.518
Birth cohort: 1957-66	-1.569 (0.165)	0.208
Birth cohort: 1967-76	-2.754 (0.250)	0.064
Constant	-2.649 (0.155)	-

[a] The omitted category is "Birth cohort: 1927-36".
[b] Significant at the .029 level; all other coefficients are significant at beyond the .001 level.

TABLE 4
Coefficients for Binomial Logistic Regression Models of *Hukou* Change, Chinese Adults 1996 (N=4,127) [a]

Variables	Model 1		Model 2 [d]	
	b	e^b	b	e^b
Education (Junior high or below omitted)				
Senior high school	.904 (.202)	2.471	1.407 (.222)	4.083
Vocational school	2.115 (.259)	8.294	2.369 (.253)	10.69
College or above	3.838 (.435)	46.46	4.428 (.477)	83.80
Party membership	1.438 (.155)	4.212	1.320 (.173)	3.744
Military experience	1.589 [c] (.694)	4.900	1.908 (.656)	6.737
Control variables				
Male			-.766 (.131)	.465
Parental party membership			.494 (.166)	1.639
Father in state work unit			.871 (.138)	2.389
Birth cohort (reference category: 1927-36)				
Birth cohort: 1937-46			-.809 (.151)	0.445
Birth cohort: 1947-56			-1.586 (.193)	0.205
Birth cohort: 1957-66			-1.953 (.214)	0.142
Birth cohort: 1967-76			-2.193 (.273)	0.112
Constant	-2.643 (0.199)		-2.102 (.267)	

[a] People who changed their *hukou* without changing their residence (N = 216) are excluded from this analysis because they are assumed to have acquired urban *hukou* status via the incorporation of their village into a town or city.

[b] Significant at the .022 level; all other coefficients in the column are significant at beyond the .001 level.

[c] All coefficients are significant at or beyond the .004 level.

TABLE 5

Discrete-time Logit Models for Obtaining Urban Status on Selected Variables, 1956-1996[a]

	Model 1		Model 2	
	b	e[b]	b	e[b]
Time-dependent covariates				
Education (reference category: junior high and below)				
Senior high school	1.679 (.188)	5.361	1.732 (.192)	5.654
Vocational school	2.158 (.250)	8.654	2.178 (.239)	8.826
College or above	4.569 (.425)	96.404	4.462 (.546)	86.638
Party membership	1.209 (.157)	3.489	1.490 (.144)	4.436
Military experience	.855[b] (.612)	2.351	.982[c] (.790)	2.669
Time-independent covariates				
Male			-.434 (.113)	.648
Parental party membership			.218[c] (.163)	1.243
Father in state work unit			1.320 (.200)	3.743
Period (reference category:1955-1958)				
1959-1965			-1.364 (.198)	.256
1966-1976			-1.960 (.209)	.141
1977-1986			-1.866 (.243)	.155
1987-1996			-2.155 (.277)	.116
Age (reference category: 14-19)				
20-25			-.561 (.143)	1.752
26-31			- .041[c] (.174)	.960
32-40			-.093[c] (.206)	.911
41-60			-.076[c] (.228)	.927
Constant	-5.993 (.198)	-	-4.322 (.222)	-

[a] People who changed their *hukou* without changing their residence (N=216) are excluded from this analysis because they are assumed to have acquired urban *hukou* status via the incorporation of their village into a town or city.

[b] Significant at the .163 level; all other coefficients in the column are significant at beyond the .0005 level.

[c] Where marked, p-values, going down the column, are .214, .182, .816, .651, .739. All other coefficients are significant at beyond the .0005 level.

Fig. 1. Industrial Output, Industrial Employment, and Urbanization: China 1952-1996

Notes:

Urbanization: percent of total population that has an urban *hukou*.

Industrialization: percent of total GDP that comes from the non-agricultural sector.

Non-agricultural employment: percent of employed population engaged in non-agricultural labor.

Source: *China Labor Statistical Yearbook* 1998,1999.

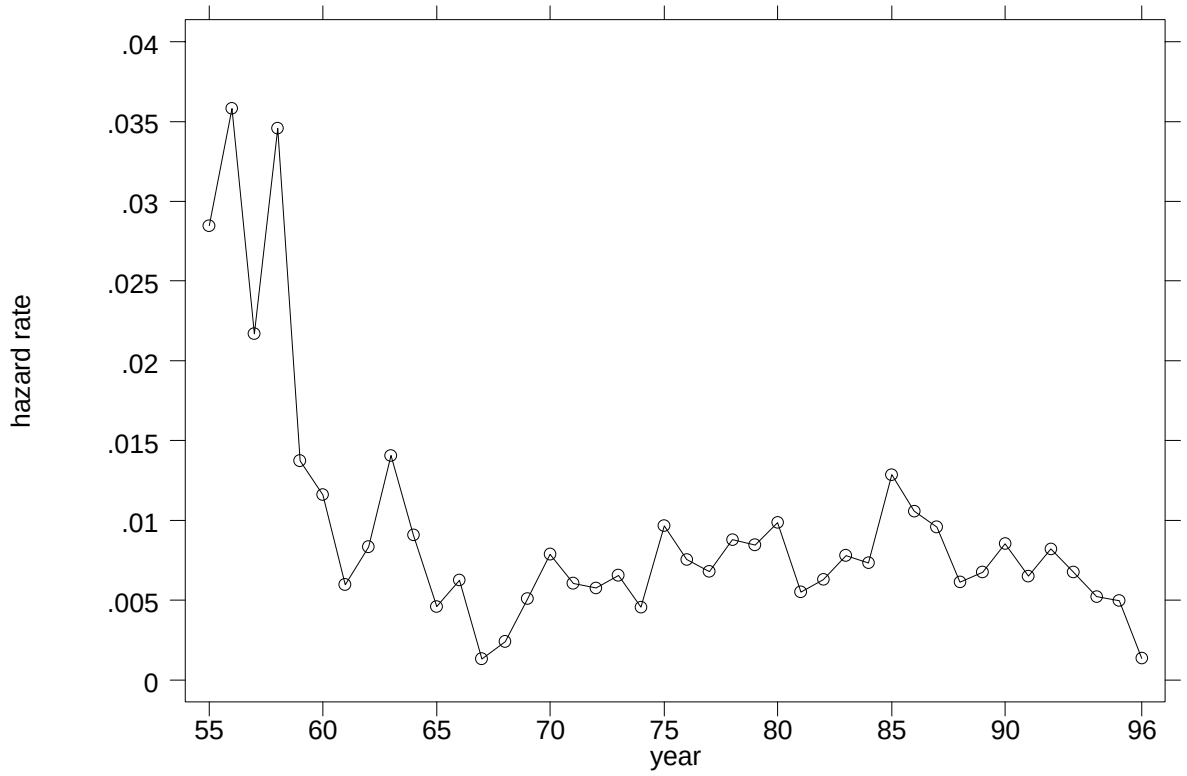

Figure 2.Discrete-time Hazard-rate of Hukou Conversion: 1955-1996
(percent gaining an urban *hukou* among those at risk).