Inequality and Equality under Chinese Socialism: The *Hukou* System and Intergenerational Occupational Mobility[1]

Xiaogang Wu
Hong Kong University of Science and Technology

Donald J. Treiman
University of California, Los Angeles

Data from a 1996 national probability sample of Chinese men is used to analyze the effect of family background on occupational mobility in contemporary China, with particular attention to the rural-urban institutional divide. China has an unusually high degree of mobility *into* agriculture and also, apparently, unusual "openness" in the current urban population. Both patterns are explained by China's distinctive population registration system, which simultaneously fails to protect rural-origin men from downward mobility and permits only the best educated to attain urban registration status, resulting in severe sample selection bias in previous studies restricted to the urban population. New light is shed on the relationships between the socialist state and social fluidity and between inequality and mobility.

INTRODUCTION

A central concern of intergenerational occupational mobility studies is to assess the openness of the opportunity structure of a society (Featherman,

[1] This research was supported by a Competitive Earmarked Research Grant (CERG) to the first author from the Research Grants Council of Hong Kong (HKUST6424/05H). The article is dedicated to over 800 million Chinese peasants and their children, whose suffering and perseverance have shaped China today. As one of those children who fortunately achieved extreme upward mobility, the first author is grateful for the insights provided by his life experiences and for his professional training, which provided the analytic tools necessary to tell the Chinese story. An earlier version of this article was presented at a meeting of the International Sociological Association (ISA) Research Committee on Social Stratification and Mobility (RC28), Rio de Janeiro, August 2004. The authors appreciate the comments and suggestions from the confer-

0002-9602/2007/11302-0003$10.00

Jones, and Hauser 1975; Ganzeboom, Luijkx, and Treiman 1989; Erikson and Goldthorpe 1992). Many researchers (e.g., Parish 1981; Blau and Ruan 1990) claim that China, as a state socialist country, is unusually open. The socialist state eliminated private ownership of the means of production and implemented a variety of egalitarian policies that favored children from disadvantaged family origins in educational and occupational attainment, particularly during the 1966–76 Cultural Revolution (Deng and Treiman 1997). As a consequence, the argument goes, the linkage between father's and son's occupational status was weakened, resulting in an unusually low level of social reproduction.

Empirical analyses of data collected from China have lent some support to this claim. Analyzing data collected in the mid-1970s from Chinese emigrants in Hong Kong, Parish (1981, 1984) reported that the effect of parental status on children's educational and occupational attainment, although positive in China as in other societies, declined sharply after 1966 as a result of the Cultural Revolution. Blau and Ruan (1990), in an analysis of a 1986 probability sample of the population of Tianjin, then China's third largest city, found that transmission of occupational status was much less pronounced than in the urban United States. In particular, a father's occupational status did not improve his son's achievement.

Other scholars pointed to the central role of urban workplaces (*danwei*) in weakening occupational transmission. Lin and Bian (1991), for instance, argued that workplace (*danwei*) affiliation, rather than occupation, was the primary determinant of socioeconomic standing in Chinese urban society. Their analyses of 1985 survey data for Tianjin show that, despite a weak and insignificant association between father's and son's occupational status, father's work-unit status had a direct and significant effect on son's work-unit status. Therefore, intergenerational status transmission did exist under socialism, but in a form different from that under capitalism.

The apparent lack of intergenerational occupational reproduction remains puzzling, especially given the demonstration of a modest but nontrivial association between the occupational status of fathers and sons found in virtually every other nation where the question has been studied (Lipset and Bendix 1959; Grusky and Hauser 1984; Ganzeboom et al. 1989; Treiman and Yip 1989; Erikson and Goldthorpe 1992; Breen 2004). Despite the unique role of work units in the process of urban stratification,[2] it remains unclear why father's occupation does not matter at all in the

ence participants and from the *AJS* reviewers. Direct correspondence to Xiaogang Wu, Division of Social Science, Hong Kong University of Science and Technology (HKUST), Clear Water Bay, Kowloon, Hong Kong. E-mail: sowu@ust.hk

[2] Our study here is not intended to address directly the role of work units in occupational mobility, though.

process of status attainment, given the fact that there is a strong link between the types of work units employing fathers and sons, and a strong link between the type of work unit and occupation within each generation (Lin and Bian 1991; Bian 1994). Occupational inheritance and occupational mobility as key aspects of intergenerational social reproduction should not be lightly dismissed but demand further careful investigation.

There are additional reasons for treating the existing results from China as inconclusive with respect to the amount of intergenerational occupational mobility. First, the data used in the analyses reviewed above are either from nonrepresentative sample surveys or from samples limited to single cities, rendering the findings hardly generalizable to the entire nation. Second, analyses restricted to those with urban registration (the population from which urban samples are conventionally drawn in Chinese surveys) are intrinsically flawed, since rural-to-urban residential status change is an important, highly restricted, and very selective process, heavily dependent upon educational attainment and resulting in dramatic improvement in life chances (Wu and Treiman 2004). Analyses limited to urban populations fail to account for the de jure and de facto segmentation of the rural and urban population and the positive sample selection of those who were able to change their registration status from rural to urban. Finally, despite the advantages of the multiple linear regression models employed in status attainment research, they have limitations, of which the most critical is their inability to capture the disproportionate propensity for men to follow their fathers' footsteps, working at jobs in the same occupational class as their fathers, and their inability to easily model sectoral barriers to mobility. Both of these aspects of mobility are particularly important in China given the role of the *hukou* system in creating an institutionalized hurdle to mobility for those of rural origins.

In this article we overcome these limitations by analyzing intergenerational occupational mobility using data from a 1996 national probability sample of adult men ages 20–55. We show how the household registration (*hukou*) system intervenes in the process of intergenerational occupational mobility and modifies the link between father's occupation and son's occupation. We emphasize the role of distinctive state policies in creating rural-urban structural inequality and driving mobility, and we shed new light on the issue of societal openness in state socialist China.

THE RURAL-URBAN DIVIDE AND CHINESE SOCIAL STRATIFICATION

Rural-urban structural inequality is a prominent feature of social stratification in state socialist China. Such inequality has been institutionalized by the household registration (*hukou*) system since 1955, under which all households had to be registered in the locale where they resided and also were categorized as either "agricultural" or "nonagricultural" (synonymously, "rural" or "urban") households (Chan and Zhang 1999, pp. 821–22).[3]

The *hukou* system has provided an important administrative means for the government to cope with demographic pressures in the course of rapid industrialization starting in the 1950s. Under the *hukou* system, the majority of the population was confined to the countryside and entitled to few of the rights and benefits that the socialist state conferred on urban residents, such as permanent employment, medical insurance, housing, pensions, and educational opportunities for children. The *hukou* system served as an important mechanism in distributing resources and determining life chances in China (Wu and Treiman 2004).

Hukou status, like other family background characteristics, can be viewed primarily as an ascriptive attribute, since it is assigned at birth on the basis of the mother's registration status (Chan and Zhang 1999). Those whose mothers have urban status automatically acquire urban status themselves, while those whose mothers have rural status must compete for urban status through very limited channels. Without permanent urban registration status, a person is not eligible for most high-status urban jobs, even if he or she was born in a city or, in the reform era, moved there as a child or young adult.

From the inception of the registration system, rural-to-urban status conversion has been very selective. To control the growth of the urban population, the government imposed a strict quota on the conversion rate, between 1.5 and 2.0 per thousand persons each year, even in the reform era (Lu 2003, pp. 144–46). Education, party membership, and military experience are three major factors that facilitate *hukou* mobility in China, among which education is the most important (Wu and Treiman 2004). Matriculation in a specialized secondary (*zhong zhuan*) or tertiary (*da zhuan* or *ben ke*) school carried with it entitlement to urban status, not counted in the government quota (State Council [1958] 1986). Hence, junior high school graduates with a rural *hukou* had (and have) two strategies for securing an urban *hukou* via higher education. The first was to gain admission to a specialized secondary school (*zhong zhuan*),

[3] Registration (*hukou*) status need not be identical to residential locale. People with rural *hukou* status could and can live in cities, as have increasingly large numbers of migrant workers beginning in the early 1980s. Similarly, people with urban *hukou* status could live in rural areas, as do agricultural technicians and school teachers. Hereafter, unless otherwise noted in the text, we use "rural" and "urban" to refer to de jure residential status (*hukou* status) and, to avoid confusion, use the terms "agricultural" and "nonagricultural" to refer only to occupations.

which conferred urban *hukou* status immediately upon admission. The second was to gain admission to an academic senior high school and then to a tertiary institution. Tertiary education confers both urban *hukou* status and a high-status job, but the risk is that students from rural *hukou* origins who fail the National College Entrance Examination must return to their home villages and work as peasants. We reported earlier that only 11% of all respondents from rural origins had successfully converted their *hukou* status, and higher educational attainment accounted for about half of all *hukou* mobility (Wu and Treiman 2004, p. 367).

The very fact that urban *hukou* status is so difficult to achieve for those from rural origins, and is so selective of the best and brightest of the rural population, has important implications for the analysis of intergenerational occupational mobility. The household registration system not only created a high barrier for mobility from agricultural to nonagricultural occupations, but also weakened the intergenerational occupational status association observed in urban samples. The de jure urban population is composed of two sectors: those born into families with urban registration, who are subject to mobility regimes typical of urban populations, and those who managed to convert their registration from rural to urban based on their own educational or other achievements (Wu and Treiman 2004), and thereby typically have experienced extreme upward mobility.[4] For this reason, research based on urban samples (or rural samples, although this is uncommon) is likely to be subject to severe selection bias (Winship and Mare 1992). To get the correct story with respect to social mobility patterns and processes, we need to analyze national data, which combine both rural and urban populations but also take into account the role of the *hukou* system.

To our knowledge, an article by Cheng and Dai (1995) is the only Chinese study that is sensitive to the problems for social mobility analysis created by the rural-urban institutional divide. Using pooled rural and urban data from six provinces, they found a high rate of intergenerational *immobility* in the Chinese working population, a finding that, as noted above, undercuts the claim that China became an unusually open society under the socialist regime. However, despite the inclusion of both rural and urban cases, their data are from selected regions, and their sampling points were not chosen via probability sampling procedures but rather were picked impressionistically to represent particular types of residence

[4] Although the urban population increasingly includes migrants from rural areas, living in cities while retaining their registration in their home villages, migrants are often entirely excluded from urban samples, which typically are based on registration (*hukou*) lists. For further discussion of this point as it pertains to the data analyzed here, see n. 9.

places. Moreover, the *hukou* system, an institution that directly regulates rural-to-urban migration and attendant occupational mobility, was not considered in their analysis. They attributed the high rate of downward mobility into agricultural occupations observed in their data,[5] which increased across birth cohorts, to "the policy of rustication of urban youths and intellectuals, many of whom had come from service-class origins themselves" (Cheng and Dai 1995, p. 28).

We believe that this conclusion is not sound, since most youths and intellectuals "sent down" during the Maoist era had returned to the cities and resumed their urban status well before 1988, when Cheng and Dai's data were collected (Zhou and Hou 1999). We suspect, and will show below for our data, that the high rate of downward mobility into agricultural occupations is due to the household registration system, which blocks opportunities for the rural majority. The prospects of the children of peasants are tenuous even when the father leaves agriculture to work in rural industry or services.

The above discussion suggests the importance of the household registration system and de jure rural-urban divide in understanding intergenerational occupational mobility. In this article, we analyze a national representative probability sample that includes both rural and urban components and demonstrate how attending to the effect of the registration system helps make sense of the mobility patterns previously observed by other scholars but misinterpreted as consequences of socialist egalitarian ideology and radical policies to reduce inequalities. We employ a multinomial conditional logistic regression model, which combines the advantages of status-attainment models and log-linear mobility models, to investigate how different covariates affect intergenerational occupational mobility. We also specifically analyze downward mobility into agriculture as a way of understanding the process of blocked mobility imposed by the household registration system.

DATA AND VARIABLES

Data

The data used here are from the survey Life Histories and Social Change in Contemporary China (Treiman and Walder 1996), a multistage, stratified national probability sample of 6,090 adults ages 20–69 from all

[5] For instance, of respondents with fathers in professional occupations, 28% of men and 23% of women had agricultural occupations, and of respondents whose fathers had managerial positions, 38% of men and 26% of women had agricultural occupations (Cheng and Dai 1995, tables 3 and 4).

regions of China except Tibet (Treiman and Walder 1996; Treiman 1998).[6] Samples from urban and rural areas were drawn separately, yielding 3,087 rural cases and 3,003 urban cases. These two samples are combined, with appropriate weights, to form a national probability sample of the general population in China (Treiman 1998, app. D).

The questionnaire covered a broad range of topics and solicited information about both the respondents and their families. Information on respondents' household registration status (*hukou*), occupations, education, party membership, and similar information about the respondent's father is exploited in the analyses. Because intergenerational occupational mobility patterns are known to differ for men and women (e.g., Hauser, Featherman, and Hogan 1977; Hout 1988), and because patterns of *hukou* mobility also differ for men and women in China (Wu and Treiman 2004), in this article we restrict our analysis to men. Doing so has the additional advantage of making our analysis comparable to previous work on China (e.g., Blau and Ruan 1990) and most other countries, which is almost entirely based on male samples.[7] For reasons elaborated below, we restrict our analysis to those between 20 and 55 years old.

Variables

The most important variable in our analysis is occupation, for both the respondent and his father. To facilitate the analysis of sectoral barriers to mobility (Featherman and Hauser 1978; Goldthorpe 1987) and the more-or-less universal propensity for men disproportionately to work at jobs roughly similar to those of their fathers, we code occupations into a six-category version of the EGP scheme (Erikson, Goldthorpe, and Potocarero 1979; Ganzeboom, de Graaf, and Treiman 1992; Ganzeboom and Treiman 1996). The relationship between the 10-category version proposed by Erikson et al. (1979) and the six-category version used here is as follows:

	Original Classification	New Classification
I.	Large proprietors, higher professionals, and managers	6
II.	Lower professionals and managers	6
III.	Routine nonmanual workers	5

[6] The data and documentation can be downloaded from http://www.sscnet.ucla.edu/issr/da/.

[7] We conducted an exploratory analysis of occupational mobility with pooled data for men and women and found that women differ from men in mobility opportunities but that *hukou* status plays a similar role for both sexes.

IVa.	Small proprietors with employees	4
IVb.	Small proprietors without employees	4
V.	Lower grade technicians and manual supervisors	3
VI.	Skilled manual workers	3
VIIa.	Unskilled and semiskilled manual workers	2
IVc.	Self-employed farmers	1
VIIb.	(Unskilled) agricultural workers	1

We coded both the respondent's current occupation and his father's occupation when the respondent was age 14 into these six EGP categories.[8]

Among the covariates, *hukou* status is of central interest. The survey collected information on respondents' *hukou* status both at age 14 and in the survey year (1996). We employ *hukou* status when the respondent was an adolescent (at age 14) to measure origin status. Respondents born before 1941, and some of those born in 1941, had no *hukou* at age 14 since the system was introduced in 1955. Because of the importance of *hukou* status in our analysis, we restrict our sample to those who reported a nonmissing *hukou* status at age 14, which effectively limits the sample to men ages 20–55 in 1996. Current *hukou* status and *hukou* status at age 14 are both coded as dummy variables (rural = 1). In addition, we include a variable identifying rural-to-urban *hukou* changers, those with rural *hukou* status at age 14 but urban *hukou* status at the time of the survey (yes = 1). We do not consider urban-to-rural *hukou* mobility since it rarely occurs in China.

Hukou status is not always identical to place of residence (see n. 3). The survey also collected information both on residence when the respondents were age 14 and on current residence. This information is nearly complete, with very few missing observations. These are coded as dummy variables (rural = 1).

DESCRIPTIVE ANALYSIS

Because much of this article is concerned with the consequences of *hukou* origin, *hukou* mobility, and residence, in table 1 we present the distribution of the sample across *hukou* status and residence both when the respon-

[8] We did this by applying a modified version of Ganzeboom's "iscoegp.inc" map (http://home.fsw.vu.nl/~ganzeboom/pisa/; Ganzeboom and Treiman 1996, app. B) to the ISCO68 codes in the original data set. We modified Ganzeboom's specifications to take account of occupations unique to communist systems, taking guidance from the modifications of ISCO shown in Treiman (1994, app. C).

TABLE 1
DISTRIBUTION OF CHINESE MEN AGES 20–55 BY *Hukou* STATUS AND RESIDENCE AT AGE 14 AND IN 1996

		RURAL *Hukou* AT 14		URBAN *Hukou* AT 14		
Hukou in 1996	Residence in 1996	Rural Residence	Urban Residence	Rural Residence	Urban Residence	Total
Rural	Rural	69.1	.2	.3	.0	69.5
	Urban	2.7	1.8	.0	.2	4.7
Urban	Rural	2.5	.0	1.0	.0	3.5
	Urban	4.8	2.0	.5	14.9	22.2
Total		79.1	4.0	1.8	15.1	100.0

NOTE.—Numbers are percentages. Cells total to 100%; $N = 2{,}133$.

dents were age 14 and in 1996, resulting in a 16-cell table with the percentage of the population in each cell.

As table 1 shows, in the entire population, 83.1% of men were from rural (*hukou*) origins, but only 74.2% of men still held rural *hukou* status as of 1996; 9.3% of men changed *hukou* from rural to urban status since age 14, and these constitute 36.2% (= 9.3/[3.5 + 22.2]) of current urban *hukou* holders. Among those who resided in cities in 1996, about 42% (= [4.8 + 2.0 + 2.7 + 1.8]/[4.7 + 22.2]) are from rural *hukou* origins, including not only those who acquired urban *hukou* status mainly through their own efforts and hence achieved high-status urban occupations ([4.8 + 2.0]/[4.7 + 22.2] = 25.3%), but also rural migrants in cities without urban *hukou* status ([2.7 + 1.8]/[4.7 + 22.2] = 16.7%).[9]

Because a substantial proportion of both the de jure and de facto urban population consists of *hukou* converts, the selective process of *hukou* mobility could have driven the pattern of occupational mobility in urban China. To further illustrate this point, we tabulate sons' by fathers' occupations, using the six-category EGP scheme described above. The top of table 2 presents an outflow mobility table for all adult men who had a *hukou* at age 14.

The most anomalous feature of the Chinese mobility table is the high rate of mobility into agriculture: 14.7% of Chinese men whose fathers

[9] This suggests that informal migrants account for 16.7% of the de facto urban population in 1996: about 10% moved from rural to urban areas without changing *hukou* since age 14, and 6.7% had been in cities without urban *hukou* status before age 14. The survey estimates are probably too low due to undercounts of migrants. Although the survey analyzed here took special pains to try to identify migrants by sampling from the register of temporary residents as well as the register of permanent residents, many migrants fail to register as temporary residents (Chan and Zhang 1999). Most Chinese surveys sample from the register of permanent residents and thus omit migrants altogether.

TABLE 2

Outflow Table for Chinese Men Ages 20–55 in 1996

	Father's Occupation						
Respondent's Occupation	I, II	III	IVa/IVb	V, VI	VIIa	IVc/ VIIb	Total
All men:							
Professionals, managers (I, II)	41.8	13.4	20.8	15.2	10.9	9.7	14.1
Routine nonmanual (III)	6.9	12.5	.0	3.7	14.5	1.2	2.9
Small owner (IVa, IVb)	11.6	24.2	46.3	12.4	19.8	10.4	12.3
Foremen, skilled (V, VI)	16.5	14.2	3.9	28.2	22.6	7.3	10.9
Semi- and unskilled (VIIa)	8.6	15.9	8.5	15.9	18.1	5.4	7.5
Agricultural (IVc, VIIb)	14.7	19.8	20.6	24.5	14.2	66.0	52.4
Total	100.1	100.0	100.1	99.9	100.1	100.0	100.1
Weighted *N*	234	28	56	179	110	1,519	2,126
Unweighted *N*	335	46	66	220	152	1,307	2,126
Urban *hukou* origin:							
Professionals, managers (I, II)	48.3	16.7	43.7	22.5	14.0	29.4	31.5
Routine nonmanual (III)	8.5	17.9	.0	5.5	17.5	6.7	9.4
Small owner (IVa, IVb)	6.6	31.0	50.3	11.0	19.7	3.9	12.5
Foremen, skilled (V, VI)	22.0	13.1	.0	39.9	27.8	100.0	24.9

Semi- and unskilled (VIIa)	11.4	21.4	6.0	21.2	21.1	5.1	15.2
Agricultural (IVa, VIIb)	3.2	.0	.0	.0	.0	44.8	6.4
Total	100.0	100.1	100.0	100.1	100.1	99.9	99.9
Weighted *N*	130	19	12	89	66	42	358
Unweighted *N*	207	35	21	145	108	53	569
Rural *hukou* origin:							
Professionals, managers (I, II)	33.5	5.6	14.9	8.1	6.1	9.2	10.5
Routine nonmanual (III)	4.8	.0	.0	2.0	10.1	1.1	1.6
Small owner (IVa, IVb)	18.0	8.4	45.3	13.9	20.0	10.5	12.2
Foremen, skilled (V, VI)	9.6	16.8	4.9	16.8	15.0	7.2	8.0
Semi- and unskilled (VIIa)	5.0	2.8	9.1	10.7	14.6	5.4	6.0
Agricultural (IVa, VIIb)	29.2	66.4	25.9	48.5	35.3	66.6	61.8
Total	100.1	100.0	101.1	100.0	100.1	100.0	100.1
Weighted *N*	104	8	45	90	44	1,477	1,768
Unweighted *N*	128	11	45	75	44	1,254	1,557

Note.—All numbers except *N*s are percentages. Six-category EGP classification.

were professionals and managers ended up in agricultural occupations, as did about 20% of both routine nonmanual workers' sons and small owners' sons, and 24.5% of foremen and skilled workers' sons. We know of no other country that has exhibited such a pattern of reverse mobility "back to the land."

How can we account for the distinctive pattern of occupational mobility among Chinese men? Cheng and Dai (1995) found a similar pattern based on a different occupational classification scheme, but then offered what we regard as an unsound explanation, that the policy of sending urban young people "down to the countryside and up to the mountains," especially during the Cultural Revolution, resulted in substantial intergenerational mobility into agriculture. The difficulty with this explanation is that most of those who were sent down returned to the cities after just a few years (Zhou and Hou 1999). In the data used here, only one of the 128 men with urban *hukou* status at age 14 who had been sent down failed to resume urban status by the time of the survey. Hence, the inclusion in table 2 of men who had been sent down has virtually no effect on the pattern observed.

We conjecture that the high rate of mobility *into* agriculture results from the *hukou* system that blocks occupational opportunities for the rural majority. Those from agricultural origins (most held a rural *hukou* at age 14) have limited opportunities to convert to urban registration, mainly via specialized secondary or tertiary education and to a more limited extent through Communist Party membership or military service (Wu and Treiman 2004). Of course, some sons of peasant workers will be able to exploit their fathers' connections to secure nonagricultural jobs—something we will analyze later in the article—but only a small fraction of the rural population is able to accomplish this. In short, the sons of peasant workers remain peasants, even if their fathers have been able to escape from the fields, and, as such, their opportunities remain limited, and substantial fractions end up in agriculture.

To confirm this conjecture, we present outflow mobility tables separated by *hukou* origin in table 2. We show the mobility table for men from urban *hukou* origin and for men from rural *hukou* origin. Additional evidence that the "send-down" policy did not increase mobility into agriculture is that virtually no one from urban origins held agricultural jobs, except for nearly half of the sons of the small number of men who worked in agriculture (probably on state-owned farms) even though they held an urban *hukou*. Instead, the pattern for those men mirrors that observed for the total male populations of most industrialized nations. In sharp contrast, however, there is a high rate of mobility into agriculture among those of rural *hukou* origin, irrespective of their father's occupational status.

In table 3, we further separate the outflow tables for men of rural *hukou* origin by their current *hukou* status. Among the small fraction of men who managed to change their registration status to urban *hukou* status, few experienced downward mobility into agriculture, and fully 52.6% of men from agricultural backgrounds became professionals and managers. On the other hand, the high rate of downward mobility into agriculture among those of rural origins becomes even more pronounced when those who have converted to urban *hukou* status are excluded. Among those who remained peasants (i.e., retained their rural *hukou* status), 30.0% of the sons of small owners, and at least 46% of the sons of other nonagricultural workers, became agricultural workers themselves.

Hence, it seems that the dominant feature of the Chinese stratification system is the distinction between those with rural *hukou* on the one hand, and those with urban *hukou* on the other. Even those who become "peasant workers" (i.e., are engaged in work outside agriculture) remain peasants and are subject to the restrictions on opportunities for the rural population imposed by state policies (Chan 1994; Wu and Treiman 2004), with attendant consequences for the mobility chances of their sons.

MULTIVARIATE ANALYSIS OF OCCUPATIONAL MOBILITY TABLES

Our multivariate analysis is focused on analyzing the mobility tables presented above and explicitly examining the importance of *hukou* origin and *hukou* change for occupational mobility patterns in China. Conventional mobility table analysis relies on log-linear and log-multiplicative models to decompose the pattern of association in the tables, which make it difficult to incorporate many other explanatory variables (e.g., *hukou* origin, *hukou* change, and education) intervening in the intergenerational mobility process. We utilize multinomial conditional logistic regression models (DiPrete 1990; Hendrickx 2000) to carry out a multivariate analysis of the relative chances of moving between occupational categories. We believe that this type of model is particularly suitable for our analysis because it permits incorporating several covariates, both continuous and categorical, into our analysis of 6 × 6 mobility tables (for other applications of this model see Hendrickx and Ganzeboom 1998; Dessens et al. 2003).

Statistical Models

Specifically, we estimate stereotype ordered regression (SOR) models (DiPrete 1990). The SOR model estimates a scaling metric for occupational categories that takes into account the effects of individual-level covariates. Unlike ordinal logistic regression, the SOR model assumes no specific

TABLE 3
Outflow Tables for Chinese Men Who Had a Rural *Hukou* at Age 14, by Current *Hukou* Status

	Father's Occupation						
Respondent's Occupation	I, II	III	IVa, IVb	V, VI	VIIa	IVc, VIIb	Total
Current urban *hukou*:							
Professionals, managers (I, II)	48.4	20.0	29.3	17.6	4.2	52.6	46.0
Routine nonmanual (III)	7.5	.0	.0	17.0	10.6	5.4	6.6
Small owner (IVa, IVb)	18.6	20.0	34.0	4.4	4.2	7.6	10.7
Foremen, skilled (V, VI)	15.4	60.0	18.9	39.0	33.3	15.7	18.5
Semi- and unskilled (VIIa)	6.4	.0	17.9	22.0	47.8	12.5	13.6
Agricultural (IVa, VIIb)	3.8	.0	.0	.0	.0	6.2	4.7
Total	100.1	100.0	100.1	100.0	100.1	100.0	100.1
Weighted *N*	38	2	5	9	10	109	174
Unweighted *N*	73	4	8	16	16	200	317
Current rural *hukou*:							
Professionals, managers (I, II)	22.7	.0	12.6	6.9	6.8	5.2	6.1
Routine nonmanual (III)	2.8	.0	.0	.0	9.9	.7	.9
Small owner (IVa, IVb)	17.6	3.9	47.1	15.1	25.2	10.8	12.4
Foremen, skilled (V, VI).	5.4	.0	2.6	13.9	8.9	6.5	6.7
Semi- and unskilled (VIIa)	4.0	3.9	7.7	9.2	2.3	4.8	5.0
Agricultural (IVa, VIIb)	47.6	92.2	30.0	54.9	46.9	72.1	68.8
Total	100.1	100.0	100.0	100.0	100.0	100.1	99.9
Weighted *N*	53	5	34	70	29	1,192	1,383
Unweighted *N*	55	7	37	59	28	1,054	1,240

Note.—Six-category EGP classification.

order of occupational categories, but unlike standard multinomial logistic regression, it does assume that occupational categories can be rank ordered; the scaling of categories is one of the outcomes of the analysis. The SOR model can be specified as:

$$\log\left(\frac{P[Y=j]}{P[Y=j']}\right) = \text{logit}\left(\frac{\pi_j}{\pi_{j'}}\right) = \alpha_j - \alpha_{j'} + (\phi_j - \phi_{j'})\sum_{k=1}^{K}\beta_k X_k, \qquad (1)$$

where Y is the son's occupation with categories $j = 1$–6; α_j represents the constrained intercept parameters; the scaling metric for the dependent variable (occupation j) is represented by the ϕ_j; and the X_k are the covariates, and the β_k are the effect parameters for the covariates. Hence, the effect of one unit change in X_k on the log odds of being in one occupational destination j versus another j' is captured by $(\phi_j - \phi_{j'})\beta_k$, rather than by β_k as in a standard multinomial logit model. To identify the model, we need to impose some restrictions on ϕ_j:

$$\sum \phi_j = 0, \text{ and } \sum \phi_j^2 = 1.$$

In the framework of the SOR model, Goodman's (1979) row and column model 2 can be written as

$$\text{logit}\left(\frac{\pi_j}{\pi_{j'}}\right) = \alpha_j - \alpha_{j'} + (\phi_j - \phi_{j'})\mu\sigma_i. \tag{2}$$

In this special case, father's occupation is treated as a covariate in the SOR model, except that it also needs to be rescaled by σ_i, and the effect of father's occupation on son's occupation is expressed by a single parameter μ, comparable to β_k in equation (1). Likewise, to identify the model, the same restrictions have to be imposed on σ_i:

$$\sum \phi_j = \sum \sigma_i = 0, \text{ and } \sum \phi_j^2 = \sum \sigma_i^2 = 1.$$

We can estimate models that incorporate covariates intervening between occupational origin and destination, and also can allow the association parameter μ to covary with one or more of them:

$$\text{logit}\left(\frac{\pi_j}{\pi_{j'}}\right) = \alpha_j - \alpha_{j'} + (\phi_j - \phi_{j'})(\mu_0 + \sum_{t=1}^{T} \mu_t X_t)\sigma_i + (\phi_j - \phi_{j'})\sum_{k=1}^{K} \beta_k X_k, \tag{3}$$

where μ_0 is the basic association parameter, and the μ_t are the effects of covariates X_t on the association ($t < k$). All the above models can be estimated iteratively by multinomial conditional logit models using Stata programs developed by Hendrickx (2000). Likelihood ratio tests can be employed for model comparisons.[10]

Several restrictions can be imposed on equation (3) to obtain more parsimonious models. For instance, we can constrain the metrics, ϕ, for fathers' and sons' occupations to be identical (which is equivalent to the quasi-row and column 2 model without covariates), thus saving $(J-2)$ degrees of freedom. We also can single out diagonal cells and model the immobility effects for each occupational category i separately.

[10] See the —mclgen- and —mclest- commands in Stata. The programs and detailed documentation can be downloaded from http://www.xs4all.nl/~jhckx/mcl/stata/. Note that in this implementation weights apply to groups, not to individual observations. Thus, our data are treated as unweighted, which means that likelihood ratio tests are appropriate.

$$\operatorname{logit}\left(\frac{\pi_j}{\pi_{j'}}\right) = \alpha_j - \alpha_{j'} + \sum_{i=1}^{6} \gamma_i d_i + (\phi_j - \phi_{j'})(\mu_0 + \sum_{t=1}^{T} \mu_t X_t)\phi_i + (\phi_j - \phi_{j'}) \sum_{k=1}^{K} \beta_k X_k, \tag{4}$$

with $d_i = 1$ if $i = j$ and 0 otherwise.

In equation (4) three sets of parameters are of particular interest to us: (1) the inheritance parameter γ, measuring immobility (cases in which the father and son are in the same occupation category; i.e., where $i = j$); (2) the effect of each covariate β on the odds of entering occupation j versus j'; and (3) the association parameter μ, measuring the extent of off-diagonal association. A large μ indicates a high association between father's occupation and son's occupation for those who are occupationally mobile, given the scaling of categories that emerges from the estimation procedure and the intervening effects of the covariates.

Results and Interpretation

In a preliminary step, we first estimate multinomial conditional logit models for all Chinese men based on table 2.[11] We then model the distinctions introduced in table 2 and in table 3 by adding to the SOR model two covariates, *hukou* origin and whether one has changed *hukou* status since age 14. We specify immobility for each occupation category i, and let the association parameter vary by *hukou* origin. This is model 1 in table 4.

We then impose several restrictions on the scaling metrics and immobility parameters. Comparisons of the relative goodness of fit of alternative models can be assessed either by a likelihood ratio statistic (L^2) or by the Bayesian information criterion (BIC) statistic (Wong 1994). The likelihood ratio statistic L^2 can be calculated as $2(ll_2 - ll_1)$, where ll_2 is the log likelihood for the unrestricted model, and ll_1 is the log likelihood for the restricted model. L^2 has a χ^2 distribution with degrees of freedom equal to the number of constraints. For large samples, BIC is defined as $L^2 - (df)\ln(N)$, where N is the sample size (Raftery 1995). In contrasting models, the

[11] We postulate a single status regime in China but allow the strength of the association to vary for different subgroups (the urban-origin, rural *hukou* converts, and rural stayers in table 2 and table 3). Different scale scores estimated for each subgroup would strongly reflect sample selection bias that we have cautioned against in the beginning of the article. It makes no sense to posit different status regimes for the subsamples identified in tables 2 and 3 since, as we argue, the mobility regime is driven by the effort of individuals to acquire urban *hukou* status and high-status jobs within the constraints imposed by the *hukou* system.

TABLE 4

GOODNESS OF FIT STATISTICS FOR VARIOUS MULTINOMIAL CONDITIONAL LOGISTIC REGRESSION MODELS OF OCCUPATIONAL MOBILITY

Model	Log Likelihood	L^2 vs. Model 1	*df* vs. Model 1	BIC[a]
Postulated model:				
Model 1	−2,586.0			
Restricted models:				
Model 2: Equal scales	−2,587.1	2.2	4	−35.7
Model 3: Model 2+equal immobility rate (only for nonagricultural diagonal cells)[b]	−2,590.1	8.6	8	−67.1
Model 4: Model 3+equal immobility rate (for all diagonal cells)	−2,596.1	20.2	9	−65.0

[a] BIC is defined as $L^2-(df)ln(N)$, where the likelihood ratio statistic L^2 is calculated as twice the difference in log likelihood between the restricted and unrestricted models. The L^2 statistic has a distribution with the *df* equal to the number of constraints imposed on the model. The smaller the BIC (i.e., the more negative), the greater the probability that the model is true given the data.

[b] The preferred model.

model with the more negative BIC is more likely given the data, and thus is to be preferred.

In table 4, model 2 forces the metrics for father's and son's occupation to be identical. Model 3 in addition constrains the immobility parameters to be identical for all occupational categories except agriculture. Finally, model 4 constrains the immobility categories to be identical for all occupational categories including agriculture. By the L^2 criterion, the first three models fit equally well while the fit of the fourth model is significantly inferior to that of model 1 ($P=.017$). Given that models 1–3 fit equally well, the most parsimonious model, model 3, is to be preferred. This is also the preferred model by the BIC since model 3 has the most negative BIC. Therefore, we take model 3 as the baseline for further analysis. This becomes model 1 in table 5.[12]

In table 5 we first present estimated parameters for the baseline model. We then add another important covariate—years of schooling—which is well known to be both an engine of social mobility and a mechanism of social reproduction (Treiman and Yip 1989; Shavit and Blossfeld 1993; Shavit and Müller 1998; Breen 2004). We report four sets of estimated parameters for each model: (1) the scaled scores for the six occupational

[12] Alternatively, we incorporate education as an additional covariate in the postulate model (model 2 of table 5) and reestimate the fit statistics for the equivalent set of models that are reported in table 4. This procedure yields the same preferred specification of mobility parameters.

TABLE 5

Parameters for Multinomial Conditional Logistic Regression Models of Occupational Mobility, All Chinese Men Ages 20–55 in 1996

	Model 1	Model 2
Equal origin-destination scaling metric (ϕ):[a]		
Professionals and managers (I, II)	.310	.454
Routine nonmanual (III)	.375	.332
Small owners (IVa, IVb)	−.173	−.199
Foremen and skilled manual (V, VI)	.178	.131
Semi- and unskilled manual (VIIa)	.136	.069
Agricultural occupations (IVa, VIIb)	−.827	−.788
Immobility (γ):		
Nonagricultural occupations	.703	.671
	(.096)	(.100)
Agricultural occupations (IVa, VIIb)	1.979	2.039
	(.332)	(.257)
The stereotype ordered effects of covariates (β):		
Rural-urban *hukou* change	3.981	3.418
	(.291)	(.251)
Rural *hukou* at age 14	−3.554	−2.826
	(.282)	(.236)
Years of schooling		.250
		(.022)
Origin-destination association (μ):		
Overall association	1.317	.354[b]
	(.439)	(.387)
Association × *hukou* origin	−2.549	−1.819
	(.440)	(.411)
Model fit statistics:		
N	12,930	12,930
Log likelihood	−2,590.1	−2,519.3
LR χ^2	2,800.6	2,942.2
df	11	12

Note.—SEs in parentheses.
[a] Parameters for the intercepts are omitted to conserve space. No SEs for scaling parameters.
[b] All P values are less than .05 except for this coefficient: $P = .360$.

categories (ϕ); (2) the immobility rates (γ); (3) the effects of covariates on occupational mobility (β); and (4) the parameters indicating the overall association between origin and destination (μ). To conserve space, we omit the parameters for the intercepts α_j.

Given the way the EGP classification is coded (professionals/managers as 6 and agricultural occupations as 1), the higher the score ϕ_j is, the "higher" the status of an occupation; and the larger the difference between the scaled scores for two occupational categories, the greater the effect of a covariate on the log odds of being in the higher of the two occupational categories. Inspecting model 1, it appears that the Chinese pattern of intergenerational occupational mobility is somewhat distinctive and does not conform well to what we have come to expect from analyses of other nations—that mobility follows a socioeconomic gradient, with the odds of mobility diminishing the further apart in socioeconomic terms two categories are (Ganzeboom et al. 1989; Hout and Hauser 1992). However, as we will see, this initial impression will require modification when we take account of additional factors. The coefficients for model 1 under the equal origin-destination scaling metric imply that agricultural occupations have the "lowest" status (−0.827) and that the distance from agricultural occupations is substantially larger than that between any other pair of occupational categories. However, in contrast to what is usually observed, professional/managerial occupations do not have the "highest" status—that is, they are not the most distant from agricultural workers in terms of the likelihood of mobility. Rather, routine nonmanual workers are.

We suspect that this result arises from the *hukou* system: as we have noted earlier, a substantial fraction of those in high-status positions are educationally successful sons of peasants. Those who are able to convert their *hukou* by obtaining tertiary education are also able to gain managerial and professional positions; a separate calculation shows that 86% of those with tertiary education were working in professional or managerial jobs at the time of the survey, and this fraction is even higher (91%) for tertiary educated men from rural *hukou* origins whose fathers were employed in agriculture.

The other anomaly in the table is the position of small owners. In the United States and other developed nations, this category ranks higher than foremen and skilled workers but lower than routine nonmanual workers (Ganzeboom et al. 1989). But this does not appear to be the case in state socialist China where, in common with other state socialist societies such as Russia (Gerber and Hout 2004), privately owned small businesses have been suppressed, rendering small business owners the least desirable occupation except for farmers. Although small-scale entrepreneurial activity increased very rapidly since the beginning of the economic reform, urban men were less likely to get involved in private businesses because of alternative career opportunities available to them, whereas men from rural origins had a strong propensity to grasp entrepreneurial opportunities when they became available (Wu 2006). This may account for the fact that small owners are scored between those engaged in agriculture and semi- and unskilled workers.

The immobility parameter is .703 for nonagricultural workers and 1.979 for agricultural workers (farmers), both highly significant. The greater immobility for those engaged in agriculture than for others is consistent with what has been widely observed elsewhere (Ganzeboom et al. 1989; Erikson and Goldthorpe 1992, p. 135; Layte and Whelan 2004, p. 187).

To explore the role of *hukou* status in occupational mobility following the analytic strategy in which we have disaggregated mobility tables (tables 2 and 3), we include *hukou* origin and *hukou* change as covariates in the SOR models. The large negative coefficient associated with rural-*hukou* origin indicates that relative to urban-origin men the odds of mobility to a higher-status occupation are strongly depressed. However, the even larger positive coefficient for rural-to-urban *hukou* changers indicates that such men are even more likely to achieve high-status occupations than are urban-origin men. A more detailed exploration of this pattern of coefficients is deferred to our discussion of model 2.

In model 1 we also allow the off-diagonal origin-destination association parameter to vary by *hukou* origin. For urban-origin men there is a significant positive off-diagonal association between the occupational status of fathers and sons (1.317). But for rural-origin men the off-diagonal association is much weaker—actually negative ($-1.232=1.317-2.549$).[13] Had the socialist egalitarian policies promoting social mobility worked effectively, we would expect a much lower association parameter for urban-origin men since government interventions, through provision of various socialist benefits to mitigate the effect of family background on socioeconomic achievements, have been much stronger in urban China than in rural China. The seemingly anomalous negative association parameter for rural-origin men is consistent with our arguments about the effect of the *hukou* system, which creates extreme upward mobility for men who successfully convert from rural to urban *hukou* while at the same time not permitting peasant workers who have managed to escape from the fields to transmit their occupational advantage to their sons, except through *hukou* conversion.

Since in China education is the major determinant of both *hukou* change (Wu and Treiman 2004) and social mobility (Walder, Li, and Treiman 2000), in model 2 we add years of schooling to the set of covariates. Once we control for educational attainment, the rank order of the scores for occupational categories conforms to the ordering commonly observed elsewhere (Ganzeboom et al. 1989; Hout and Hauser 1992, p. 249), with the previously discussed exception of small owners.

[13] Recall that the association parameter pertains only to those who are occupationally mobile and is conditional on the effects of *hukou* origin and *hukou* change; thus the negative association parameter for rural-origin men should not be surprising. In an earlier version of this article, our estimation of a model without SOR effects of covariates (eq. [2], equivalent to the RC II model) yielded an association parameter, μ, of 3.143 for urban-origin men, 1.092 for all rural-origin men, and -2.405 for men who changed *hukou* status. The scaled occupational rankings vary radically by subgroups, which, we believe, reflects sample selection biases based on *hukou* status and *hukou* change (see n. 11).

As expected, education facilitates (upward) social mobility, as is indicated by the significantly positive coefficient, .250. This coefficient implies, for example, that the net odds of a senior high school graduate (12 years of schooling) becoming a professional or manager rather than a semi- or unskilled laborer is about a third greater ($1.33 = e^{[.454-.069][.250][12-9]}$) than the corresponding odds for a junior high school graduate (nine years of schooling). This actually is a fairly modest effect, not nearly as important as *hukou* origin or *hukou* mobility; but as we have seen, educational attainment is strongly correlated with both.

Even after the effect of education is taken into account, *hukou* origin and *hukou* mobility continued to shape occupational mobility chances in China. Compared to urban-origin men, the net odds of being in a higher-status occupation vs. a lower-status one are multiplied by a factor of .06 ($e^{-2.826}$) for rural-origin men who retained rural status and by a factor of 1.8 ($e^{3.418-2.826}$) for rural-origin men who have successfully converted to urban status. Hence, despite the fact that the *hukou* system confines the majority of the Chinese population to rural status and limits their chance of obtaining higher-status occupations, some men from rural origins (and low-status occupational origins) can convert to urban status through a highly selective process and typically end up in high-status occupations. As we noted in our discussion of model 1, this also explains why the (off-diagonal) origin-destination association (in both model 1 and model 2) is substantially negative for men from rural origins and positive for men from urban origins (the difference is highly significant; $P<.001$). Once education is controlled, the association parameter for urban *hukou* origin men becomes nonsignificant, suggesting that father's occupation affects son's occupational attainment indirectly through education.

To give a concrete sense of the role played by *hukou* origin and *hukou* change in Chinese occupational mobility, consider the relative odds that the son of an agricultural worker would become a professional or manager versus a semi- or unskilled manual worker under various *hukou* origin and *hukou* change scenarios: those from rural *hukou* origins who retained their rural *hukou*, those from rural *hukou* origins who attained an urban *hukou*, and those from urban *hukou* origins. If we substitute the coefficients shown in model 2 of table 5 into equation (3) and drop the components common to all three groups, we have

Rural origin and destination:

$$\exp([.454-.069] \times [-1.819 \times 1 \times (-.788)]) \times$$
$$\exp([.454-.069] \times [3.418 \times 0 - 2.826 \times 1]) = .585.$$

Rural origin, urban destination:

$$\exp([.454-.069] \times [-1.819 \times 1 \times (-.788)]) \times$$
$$\exp([.454-.069] \times [3.418 \times 1 - 2.826 \times 1]) = 2.181.$$

Urban origin and destination:

$$\exp([.454-.069]\times[-1.819\times 0\times(-.788)])\times$$
$$\exp([.454-.069]\times[3.418\times 0-2.826\times 0])=1.000.$$

From these computations, we see that the odds of the son of a farmer becoming a professional or manager as against a semi- or unskilled laborer are nearly twice as high for those from urban origins as for those from rural origins who retain their rural *hukou* status. But for those who successfully convert from rural to urban *hukou* the odds of becoming a professional or manager as against a semi- or unskilled worker are nearly four times as great as for those who retain their rural status and more than twice as great as for those from urban origins.

In sum, the above analysis provides dramatic evidence of the large cost of rural origins and, for the small fraction of the population that is able to achieve urban *hukou*, of the power of *hukou* conversion as a mechanism for overcoming the disadvantage created by the accident of birth of rural *hukou* status.

EXPLAINING DOWNWARD MOBILITY INTO AGRICULTURE

In the final section of the article, we return to the seemingly anomalous result observed in table 3—the high rate of mobility *into* agriculture among rural *hukou* holders. As we have noted, the Chinese government has relied heavily on the *hukou* system to allocate material rewards and life chances among its citizens. The main function of the *hukou* system was to regulate geographical and occupational mobility, to prevent the cities from being overwhelmed by peasants (Chan 1994). Thus, while those few rural-origin men who were granted urban status generally were highly upwardly mobile (relative to their farmer fathers), with advantages even greater than those of ordinary members of the urban-origin population, the vast majority of the sons of peasants experienced a very different fate. As did their fathers before them, they mainly toiled in agriculture, and even when their fathers escaped from the fields, they were extremely vulnerable to downward mobility into agriculture. We have documented the former process (rural-to-urban *hukou* mobility) in great detail elsewhere (Wu and Treiman 2004). Here, we complete our analysis by investigating the determinants of downward mobility into agriculture among those of rural origins whose fathers had managed to gain nonagricultural positions. Put differently, we investigate the conditions under which rural men who have managed to escape from agriculture are able to pass their advantage on to their sons.

We do this by estimating discrete-time hazard models. We restrict the analysis to the sample of men from rural origins whose fathers held nonagricultural occupations when the respondents were age 14. A discrete-time hazard model involves a shift in the unit of analysis from respondents to person-years at risk of the event (mobility into agriculture). In our analysis all men from rural origins whose fathers were not farmers are considered "at risk" of mobility into agriculture in each year, starting from their year of entry into the labor force. We model only the first occurrence of the event, even though "repeated failures" (shifts back and forth between agricultural and nonagricultural occupations) are possible and even probable. Those who had not yet entered agriculture by 1996 or the year when they left the labor force are right-censored. Restructuring the data yields 2,370 person-year records, which we analyze by employing conventional procedures for estimating binary logit models (Allison 1982).

Table 6 presents the estimated parameters. We consider father's occupation, education, and party membership; respondent's education, party membership, and labor market experience prior to the year at risk; and *hukou* status change as independent variables. Father's occupation is measured by the five EGP categories used previously (agricultural occupations excluded), father's education is a continuous measure of years of schooling, and father's party membership is coded as a dummy variable (yes = 1). Since the effect of education on the odds of *hukou* mobility is known to be nonlinear, with thresholds at specialized secondary education and tertiary education (Wu and Treiman 2004), we treat the respondent's education, a time-varying covariate, as a set of categorical variables, distinguishing primary school or less, junior high school, academic senior high school, specialized/vocational secondary school, and tertiary education. Respondent's party membership refers to political status for each year at which the respondent was at risk of mobility into agriculture, and *hukou* change refers to whether the respondent had changed *hukou* status since age 14, that is, whether the respondent had an urban *hukou* at the time of the survey. The data do not indicate when *hukou* change took place, and thus we treat it as a time-invariant dummy variable. Labor market experience is a continuous variable measuring the difference between the year at risk and the year the respondent entered the labor force.

In model 1 of table 6 we include as covariates only variables pertaining to family background, namely, father's occupation class, education, and party membership. Surprisingly, none of these factors has a significant effect on mobility into agriculture. In other words, among those from rural origins, a father's advantage with respect to education, political status, and occupational achievement cannot protect his son from downward mobility into agriculture.

What the coefficients in table 6 make clear is that if a man is able to avoid downward mobility, it has to be via his own achievements. In model

TABLE 6

Discrete-Time Hazard Model of Downward Mobility into Agriculture: Chinese Men from Rural Origins Whose Fathers Worked outside of Agriculture

	Model 1	Model 2	Model 3	Model 4
Father's occupation: (profesionals, managers [I, II] omitted):				
Routine nonmanual (III)	.806	.347	.711	.218
	(.701)	(.801)	(.706)	(.736)
Small owner (IVa, IVb)	−.059	−.727	−.921	−.927
	(.433)	(.460)	(.488)	(.484)
Foremen, skilled (V, VI)	.509	.024	−.145	−.137
	(.366)	(.411)	(.442)	(.437)
Semi- and unskilled (VIIa)	.746	.678	.655	.656
	(.423)	(.415)	(.439)	(.447)
Father's education	−.069	−.070	−.084**	−.080
	(.041)	(.037)	(.039)	(.041)
Father party member	.418	.280	.250	.223
	(.364)	(.364)	(.374)	(.376)
Respondent's education (≤ primary school omitted):				
Junior high school		−.777	−.646	−.556
		(.408)	(.438)	(.459)
Academic senior high		−1.833*	−1.459**	−1.126***
		(.469)	(.450)	(.488)
Vocational senior high		−2.020 *	−1.516***	−1.440***
		(.563)	(.586)	(.725)
Tertiary[a]				
Respondent party member		−1.343	−.827	−.706
		(1.107)	(1.070)	(1.098)
Labor market experience		−.279*	−.278*	−.275*
		(.045)	(.045)	(.045)
Rural-urban *hukou* change			−1.171**	.125
			(.343)	(.981)
Interactions:				
Junior high × *hukou* change				−1.288
				(1.084)
Senior high × *hukou* change				−2.408***
				(1.151)
Vocational high × *hukou* change				−1.264
				(1.425)
Constant	−2.843*	−.037	.268	.205
	(.721)	(.706)	(.736)	(.720)

Note.—The SEs shown here in parentheses are derived by using Stata's survey estimation procedures, which correct for clustering of the sample. Data are weighted. All P values are greater than .05 except where explicitly indicated. $N = 2{,}370$.

[a] None of those with tertiary education moved downward into agriculture.

* $P<.001$.

** $P<.01$.

*** $P<.05$.

2 we add respondent's education (expressed as a set of dummy variables), party membership, and labor market experience. Unlike the family background characteristics, the respondent's own education is a strong negative predictor of the odds of downward mobility into agriculture. The odds of moving into agriculture are only 46% ($=e^{-.777}$) as large for men with junior high school education as for men with primary school education or less, 16% ($=e^{-1.833}$) as large for men with academic senior high school education, and 13% ($=e^{-2.020}$) as large for men with specialized/vocational school education. All men with tertiary education had avoided downward mobility into agriculture. By contrast, Communist Party membership does not significantly protect men against downward mobility into agriculture. Finally, the likelihood of entering agriculture quickly diminishes as labor market experience increases. Each extra year of experience in a nonagricultural job decreases the net odds of downward mobility into agriculture by 24% ($=e^{-.279}-1$).

Since, as we know, education, especially tertiary education, promotes *hukou* mobility from rural to urban status (Wu and Treiman 2004), the advantages enjoyed by senior high and college graduates over those with primary or junior high school education might simply be due to the *hukou* mobility of a subset of the sample. To check this possibility, we introduce an additional variable—*hukou* change—in model 3. Consistent with our previous findings, *hukou* change for men from rural origins not only facilitates upward mobility (as previously shown), but also deters downward mobility into agriculture.[14] For men who experienced mobility from a rural to an urban *hukou*, the net odds of mobility into agriculture are only 31% ($=e^{-1.171}$) of the corresponding odds for those who retained their rural *hukou* status. However, even after controlling the effect of *hukou* change, education continues to help protect against downward mobility into agriculture.

In model 4, we add interactions between levels of education and *hukou* change. This model reveals that academic senior high school and specialized/vocational school education are protective against downward mobility into agriculture (everyone analyzed in table 6 who attained tertiary education also successfully converted his *hukou* and moved out of agriculture). *Hukou* change is particularly helpful for academic senior high school graduates. It decreases the net odds of downward mobility into agriculture by 90% ($=e^{-2.408+.125}-1$) relative to academic senior high school graduates who were unable to convert their *hukou*.

In sum, Chinese men from rural nonagricultural origins gain little from

[14] Due to the lack of data on the timing of *hukou* conversion, the effect of *hukou* change on the likelihood of mobility into agriculture may be endogenous and thus should be interpreted cautiously.

their fathers' educational achievement and party membership with respect to their own occupational attainment. Nor can they exploit their fathers' occupational advantages within the nonagricultural sector to prevent their own downward mobility into agriculture, which dominates the rural economy. By contrast, their own education, enhanced by successful conversion from rural to urban *hukou* status, is what provides them a measure of protection against downward mobility.

SUMMARY

In this article we have analyzed intergenerational occupational mobility in contemporary China, with particular attention to the rural-urban institutional divide. We questioned the interpretation of previous findings of weak or insignificant associations between father and son's occupational status in urban China as resulting from socialist egalitarian programs, because analyses restricted to urban samples fail to take account of the higher immobility rate of men from rural than from urban origins (because those who do not move into cities are not in the data) and the positive selection of the best and brightest of the sons of peasants, who go far in school (attaining vocational or tertiary education), move into cities, and achieve very high-status jobs.

To get an accurate picture of occupational mobility in China, we then analyzed a national probability sample of the male population, ages 20–55, with both rural and urban components. Inspection of intergenerational mobility tables revealed that Chinese men experience unusually high rates of downward mobility into agriculture compared to other nations. We further demonstrated that this is true only for the subsample of men from rural origins; men from urban origins have experienced essentially no downward mobility into agricultural occupations, as observed in other nations.

To investigate how the Chinese household registration system intervenes in the process of occupational mobility, we estimated multinomial conditional logit models, which allowed us not only to calculate the extent of occupational "inheritance" or immobility and the association between father's and son's occupation for those who were mobile, but also permitted us to estimate the effects of other covariates (education and *hukou* change) on mobility rates. As expected, education enhances the likelihood of upward mobility. But the effect of *hukou* status is much stronger. We found that while men from rural *hukou* origins are significantly disadvantaged in obtaining higher-status occupations, those who are successful in converting their *hukou* more than offset the disadvantage of rural *hukou* origin. The result is that while the off-diagonal association between father's and son's occupations is positive and insignificant among men from urban origins, it is negative among men from rural origins.

We dismiss the attribution of social fluidity observed in China to the socialist egalitarian policies implemented by the government. Had those polices worked in the way they were ostensibly intended, we would have expected higher social fluidity among men from urban origins than among men from rural origins, since state intervention has been far more penetrating in urban than in rural China. However, as just noted, we observe a quite opposite picture. We look to China's unique household registration system to account for the distinctive mobility pattern.

Since its implementation in 1955, the *hukou* system has been employed by the Chinese government as the main tool to restrict rural-to-urban migration and to distribute resources and life chances, with many important implications for social mobility. Under this system, the children of women with urban registration status are automatically granted urban status at birth and are entitled to privileged benefits conferred by the socialist state. By contrast, men from rural origins have to compete for urban status, and only a small portion are successful, mainly by securing higher secondary or tertiary education. Because of their high level of education, they typically end up in high-status jobs. The inclusion of this highly mobile group in urban samples reduces the association between father's and son's occupational status; when calculations are based on those from urban *origins* rather than on those with urban *destinations*, the father-son association parameter becomes positive, in keeping with the mobility pattern observed elsewhere in the world. The extreme upward mobility of some men, together with the strong tendency of the sons of rural fathers with nonagriculture occupations to be downwardly mobile into agriculture, results in a much weaker association between the occupational "status" of fathers and sons for those of rural origin than for those of urban origin—an association that is actually negative for those who do not follow their fathers into the fields.

To explore further the distinctive pattern of downward mobility into agriculture, we conducted a discrete-time hazard analysis of the determinants of downward mobility into agriculture for men of rural origins whose fathers worked outside of agriculture. The results showed that the specific kind of nonagricultural occupation of the father had no impact, and neither did father's education or Communist Party membership. By contrast, a man's own education is helpful in protecting against mobility into agriculture. Furthermore, *hukou* mobility after age 14 is a critical factor in preventing downward mobility. In short, rural *hukou* status not only blocks upward mobility for the majority but also makes the sons of rural men who work outside agriculture vulnerable to downward mobility.

CONCLUSIONS AND DISCUSSION

Our findings pose a great challenge regarding the role of the socialist state in generating social inequality and equality. Because of the household registration (*hukou*) system and its selective process, although a small fraction of rural men was able to achieve high-status occupations, many were unable to take advantage of their fathers' achievements. The "openness" of Chinese society is thus due to state intervention, via the installation of a registration system that creates two unequal classes of socialist citizens but also provides a merit-based channel for recruitment of a select few into the urban elite.

Our analyses reveal a unique mechanism through which social fluidity is generated in urban China—the incorporation into the cities of the best and the brightest of the rural population, those who are able through education or other mechanisms to acquire formal urban *hukou* status. Although only a small fraction of the rural population manages this, the much larger size of the rural than of the urban sector means that they constitute an important fraction of the urban population, which gives urban China the appearance of unusual openness. Thus, in China, clearly, the state plays a strong role in social mobility, but not in the way scholars have previously speculated (Parish 1981, 1984; Blau and Ruan 1990; Lin and Bian 1991). Even when interventions to promote mobility by favoring people from disadvantaged backgrounds are successful—and the evidence from Eastern Europe (Erikson and Goldthorpe 1992; Szelényi 1998; Gerber and Hout 2004) is generally negative—there is no intrinsic reason to expect such interventions to produce the pattern of mobility we have observed here. Rather, the relative openness of occupational opportunities in China results from structural inequality between the urban and rural populations created by the government to cope with demographic pressures in allocating resources and life chances. Rural-urban structural inequality imposes specific and formidable barriers to mobility, but also, by making the payoff so large and providing a channel through educational achievement, it promotes the efforts of individuals to "get ahead." Consequently, we see, on the one hand, a high immobility rate among men from rural origins but, on the other hand, a high level of social fluidity among those from rural origins who have been able to overcome the structural barriers and attain urban status.

The Chinese social mobility pattern offers a paradigmatic example for comparative researchers to think more deeply about the link between inequality and mobility and the source of social fluidity. There is no necessary association between inequality and mobility chances (Hout 2004). High inequality may not depress mobility chances, and more open opportunities do not necessarily reduce inequality (Torche 2005). In this light, even when countries share a similar level of social fluidity (Featherman et al. 1975; Erikson and Goldthorpe 1992), these levels may result from different processes based on their respective inequality patterns. Understanding the circulation mobility pattern thus requires a close examination of the country's unique social structure and historical context.

The mobility pattern we have identified can be linked mainly to Chinese state socialism rather than to recent market reforms because (1) intergenerational occupational mobility is relatively insensitive to economic changes in the short run, and (2) the *hukou* system that shaped the mobility regime described here remained largely intact when the data were collected in 1996. Since the late 1990s, notwithstanding its significant adaptations and adjustments in response to further economic reforms, the *hukou* system has continued to be a key institutional mechanism shaping stratification and mobility in China (Wang 2004). Our data do not permit us to carry out an analysis of developments since 1996, nor to our knowledge have comparable data been collected by anyone else. We can only hope that future data collection will permit researchers to address the impact of market reforms and the weakening of the *hukou* system on Chinese occupational mobility patterns.

REFERENCES

Allison, Paul D. 1982. "Discrete-Time Methods for the Analysis of Event Histories." Pp. 61–98 in *Sociological Methodology 1982*, edited by Samuel Leinhardt. San Francisco: Jossey-Bass.

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

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

Breen, Richard, ed. 2004. *Social Mobility in Europe*. Oxford: Oxford University Press.

Chan, Kam Wing. 1994. *Cities with Invisible Walls: Reinterpreting Urbanization in Post-1949 China*. Hong Kong: Oxford University Press.

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

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

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.

Dessens, Jos A. G., Wim Jansen, Harry B. G. Ganzeboom, and Peter G. M. van der Heijden. 2003. "Patterns and Trends in Occupational Attainment of First Jobs in the Netherlands, 1930–1995: Ordinary Least Squares Regression versus Conditional Multinomial Logistic Regression." *Journal of the Royal Statistical Society*, ser. A, *Statistics in Society* 166:63–84.

DiPrete, Thomas A. 1990. "Adding Covariates to Loglinear Models for the Study of Social Mobility." *American Sociological Review* 55:757–73.

Erikson, Robert, and John H. Goldthorpe. 1992. *The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Clarendon.

Erikson, Robert, John H. Goldthorpe, and Lucienne Portocarero. 1979. “Intergenerational Class Mobility in Three Western European Countries.” *British Journal of Sociology* 30:415–51.

Featherman, David L., and Robert M. Hauser. 1978. *Opportunity and Change*. New York: Academic Press.

Featherman, David L., F. Lancaster Jones, and Robert M. Hauser. 1975. “Assumptions of Social Mobility Research in the United States: The Case of Occupational Status.” *Social Science Research* 4:339–60.

Ganzeboom, Harry B. G., Paul de Graaf, and Donald. J. Treiman. 1992. “An International Scale of Occupational Status.” *Social Science Research* 21:1–56.

Ganzeboom, Harry B. G., Ruud Liujkx, and Donald J. Treiman. 1989. “International Class Mobility in Comparative Perspective.” *Research in Social Stratification and Mobility* 8:3–84.

Ganzeboom, Harry B. G., and Donald J. Treiman. 1996. “Internationally Comparable Measures of Occupational Status for the 1988 International Standard Classification of Occupations.” *Social Science Research* 25:201–39.

Gerber, Theodore P., and Michael Hout. 2004. “Tightening Up: Declining Class Mobility during Russia’s Market Transition.” *American Sociological Review* 69: 677–703.

Goldthorpe, John 1987. *Social Mobility and Class Structure in Modern Britain*, 2d ed. Oxford: Oxford University Press.

Goodman, Leo A. 1979 “Simple Models for the Analysis of Occupational Cross-Classifications Having Ordered Categories.” *Journal of the American Statistical Association* 74:537–52.

Grusky, David B., and Robert M. Hauser. 1984. “Comparative Social Mobility Revisited: Models of Convergence and Divergence in 16 Countries.” *American Sociology Review* 49:19–38.

Hauser, Robert M., David L. Featherman, and Dennis Hogan. 1977. “Sex in the Structure of Occupational Mobility in the United States, 1962.” Pp. 191–215 in *The Process of Stratification*, edited by Robert M. Hauser and David L. Featherman. New York: Academic.

Hendrickx, John. 2000. “Special Restrictions in Multinomial Logistic Regression.” *Stata Technical Bulletin* 56:18–26.

Hendrickx, John, and Harry B. G. Ganzeboom. 1998. “Occupational Status Attainment in the Netherlands, 1920–1990: A Multinomial Logistic Analysis.” *European Sociological Review* 14:387–403.

Hout, Michael. 1988. “More Universalism, Less Structural Mobility: The American Occupational Structure in the 1980s.” *American Journal of Sociology* 93:1358–1400.

———. 2004. “How Inequality Might Affect Intergenerational Mobility.” Pp. 969–87 in *Social Inequality*, edited by Kathryn Neckerman. New York: Russell Sage.

Hout, Michael, and Robert M. Hauser. 1992. “Symmetry and Hierarchy in Social Mobility: A Methodological Analysis of the CASMIN Model of Class Mobility.” *European Sociological Review* 8:239–66.

Layte, Richard, and Christopher T. Whelan. 2004. “Class Transformation and Trends in Social Fluidity in the Republic of Ireland, 1973–94.” Pp. 175–94 in *Social Mobility in Europe*, edited by Richard Breen. Oxford: Oxford University Press.

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

Lipset, Seymour Martin, and Reinhard Bendix. 1959. *Social Mobility in Industrial Society*. Berkeley: University of California Press.

Lu, Yilong. 2003. *Huji Zhidu: Kongzhi yu Shehui Chabie* (The Household Registration System: Control and Social Differentiation). Beijing: Shangwu Press.

Parish, William L.1981. “Egalitarianism in Chinese Society.” *Problems of Communism* 29:37–53.

———. 1984. "De-stratification in China." Pp. 84–120 in *Class and Social Stratification in Post-revolution China*, edited by James L. Watson. New York: Cambridge University Press.

Raftery, Adrian. 1995. "Bayesian Model Selection in Social Research." *Sociological Methodology* 25:111–64.

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

Shavit, Yossi, and Walter Müller, eds. 1998. *From School to Work: A Comparative Study of Educational Qualifications and Occupational Destinations*. Oxford: Clarendon Press.

State Council. (1958) 1986. "*Hukou* Dengji Tiaoli." 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.

Szelényi, Szonja. 1998. *Equality by Design: The Grand Experiment in Destratification in Socialist Hungary*. Palo Alto, Calif.: Stanford University Press.

Torche, Florencia. 2005. "Unequal but Fluid: Social Mobility in Chile in Comparative Perspective." *American Sociological Review* 70:422–50.

Treiman, Donald J. 1994. *Social Stratification in Eastern Europe after 1989: General Population Survey—Provisional Codebook*. Los Angeles: UCLA Institute for Social Science Research.

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

Treiman, Donald J., and Andrew G. Walder. 1996. Life Histories and Social Change in Contemporary China. Distributed by the UCLA Social Science Data Archive. http://www.sscnet.ucla.edu/issr/da/.

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. Newbury Park, Calif.: Sage.

Walder, Andrew G., 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, Fei-ling. 2004. "Reformed Migration Control and New List of the Targeted People: China's *Hukou* System in the 2000s." *China Quarterly* 177:115–32.

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

Wong, Raymond S. K. 1994. "Model Selection Strategies and the Use of Association Models to Detect Group Differences." *Sociological Methods and Research* 22:460–91.

Wu, Xiaogang. 2006. "Communist Cadres and Market Opportunities: Entry into Self-Employment in China, 1978–1996." *Social Forces* 85:389–411.

Wu, Xiaogang, and Donald J. Treiman 2004. "The Household Registration System and Social Stratification in China, 1955–1996." *Demography* 41:363–84.

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.