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PERMANENT MIGRANTS TO CITIES IN CHINA: HUKOU ORIGIN AND EARNINGS AMONG MEN IN AN ERA OF ECONOMIC TRANSFORMATION*

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Abstract

The massive volume of internal migration in China since the late 1970s has attracted considerable research attention. However, the integration of permanent migrants in cities during a time of economic transformation is understudied. Using information on earnings from the 2003 General Social Survey of China, this research examines whether permanent migrants are economically advantaged or disadvantaged in comparison to non-migrants in cities. We find that permanent migrants in cities tend to be economically advantaged and that their advantage depends more on human capital than on political capital. Nevertheless, this does not mean that political capital can be ignored. A nuanced view requires attention to how political and human capital jointly affect earnings in specific economic sectors.

China has experienced a massive increase in the size of its urban population over the last several decades. Between 1997 and 2006 alone, the number of people living in cities grew from approximately 384 million to 570 million and the share of the population living in cities grew from 31 to 43 percent (United Nations 2008a). Put differently, the number of urban residents grew by nearly 50 percent and the percentage of the population in urban areas grew by 40 percent.

The scale and pace of this urbanization is due primarily to internal migration. This great internal migration to Chinese cities is remarkable because its volume is unprecedented in human history and it has occurred under the auspices of a household registration system (hukou) that exists, in part, to restrict the movement of people. Indeed, the registration system effectively creates two classes of migrants to cities: “permanent” migrants who are authorized by the state to change their place of household registration and “temporary” migrants who make an unauthorized move (Yang 2000; Liang and Ma 2004; Chan 2012a).¹

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These two segments of the migrant population are large. The 2000 Census identified 144 million temporary migrants, defined as those who left their registered place of residence for more than six months without obtaining hukou registration at their destination (Liang and Ma 2004). Between 1995 and 2000 alone, nearly 59 million people became part of the “floating population.” Moreover, 80% of temporary migrants were from rural villages and roughly 80% migrated to towns and cities, which is consistent with the urbanization of China. At the same time, the emerging presence of temporary migrants in cities has overshadowed permanent migrants, a group of considerable demographic weight.²

The amount of research attention devoted to these two segments is uneven as well. A number of studies examine the circumstances of temporary migrants (Liang 2001; Ma, 2001; Ma and Xiang 1998; He 2005; Bakken 1998; Gaetano and Jacka 2004; Yang & Guo 1996). This research provides an incomplete portrait since many city residents are permanent migrants who may differ systematically from temporary migrants. The best current information about permanent migration in China comes from descriptive studies or from local surveys administered to non-probability samples (e.g., Honig 1990; Fan 2001, 2002; Solinger, 1999a, 1999b). Thus, no prior study to our knowledge is based on a nationally representative sample.

This investigation utilizes the 2003 Chinese General Social Survey. Released in 2007, this is the first general social survey of China and the best available national-level source of data for examining the circumstances of permanent (hukou) migrants in cities. We use information from retrospective histories of all hukou migration and the current earnings of men to address two questions: Are permanent migrants economically advantaged or disadvantaged in comparison to their urban native counterparts? and What are the sources of their advantage or disadvantage? Despite the image of migrants in developing countries as a reserve labor pool that is mired in poverty, there are reasons to expect permanent migrants in China to be economically advantaged. At the same time, there is a lack of consensus about the relative importance of human and political capital for their fate(s) in the “transition” economy.

The next section lays the foundation for our analysis with a description of the household registration system as an institution designed to regulate labor migration in a command economy. This is followed by a discussion of how this economy waned with the introduction of market-based reforms before turning to the economic integration of migrants in the context of the household registration system and the transition economy.

¹The terms “permanent” and “temporary” are consistent with the household registration system in China, but not English usage. In government usage, a change in household registration is necessary for *qianyi* (“migration”) and “other types of moves are considered *renkouliudong* (population movements or ‘floating’ population), implying a ‘temporary’ move” Chan, 2012a: 82). Thus, the latter lack the government’s permission to stay permanently (Chan 2012a: 82) even though they may have been at their destination for years.

²Although the size of the permanent migrant population is difficult to determine because of insufficient data, it is undoubtedly large. Permanent migration has been ongoing since the start of the registration system in the 1950s. Temporary migration is a more recent phenomenon. Temporary migrants are sometimes mistakenly portrayed as representing the whole internal migrant population. The widely cited figure of “140 million internal migrants in China” reflects such a misunderstanding (e.g., see DeWind and Holdaway 2005).

THEORETICAL BACKGROUND

The Household Registration System and Migration

Instituted in the 1950's to serve the centrally planned economy (Chan 2012b: 67), the household registration or *hukou* system was designed to control migration by linking individuals to households that are issued residence permits to live in particular places. The household registration system classifies every Chinese citizen according to the *place* of registration and the *status* of registration. The *place* of household registration is the *de jure* residence of an individual; it is the presumed place of regular residence and must be unique (Chan and Zhang, 1999: 821–822). Registration *status* refers to an official distinction between agricultural (rural) and non-agricultural (urban) households (Chan and Zhang, 1999: 821–822).³

The hukou system is important for migration as an institution for regulating population movement. Individuals who want to legally and permanently migrate within China must apply for government permission and receive official approval of the Public Security Bureau to change their registered place of hukou residence to that of the destination (Chan, Liu, and Yang 1999). In turn, the government bases its decision to grant a change in residency status on “simultaneous ‘policy’ and ‘quota’ controls” (Chan and Zhang 1999: 823).

The hukou system is formidable because it regulates access to employment opportunities and public benefits. As legally registered permanent residents at their destination with non-agricultural status, hukou migrants qualify for various work permits that are necessary for both skilled and unskilled workers to secure good jobs (Chan, Liu, and Yang 1999: Table 1). They are also entitled to the full range of state-provided medical, housing, insurance, and educational benefits in the city where they live. In contrast, non-hukou migrants are generally not eligible for such state-provided benefits or work permits because they lack government approval for changing their place of residence. They are “second-class citizens” who tend to hold unskilled occupations in industrial sectors that offer low wages and little job security (Guo and Iredale 2004, Liang and Ma 2004; Robert 1997; Wang, Zuo and Ruan 2002). Put differently, permanent migrants may fare better than temporary migrants because their move is sanctioned by the state. State approval increases access to jobs and public benefits, there by making permanent urban residence highly desirable (Liang, 2001).⁴

This suggests that it is crucial to distinguish permanent migrants from temporary migrants. Among permanent migrants, those with rural origins should be distinguished from those with urban origins. Accordingly, the urban population consists of four key segments: (1) non-migrants, (2) permanent migrants with urban origins, (3) permanent migrants with rural origins, and (4) temporary migrants (see Table 1).⁵ The first three groups form the *de jure*

³This distinction originally reflected occupational classifications, but the connection between agricultural status and occupation has eroded. Also, prior to 1998 the household registration record (both status and the place) was inherited from one's mother. Therefore, the child of a migrant mother with a rural hukou would be considered rural even if the child grew up in a city.

⁴People from the countryside can become permanent urban residents through either the “regular” channel or the “special” channel. The regular channel includes recruitment by a state-owned enterprise, enrollment in an institution of higher education, joining or separating from the military, promotion to a senior administrative job, and various personal reasons (Chan and Zhang 1999; Wu and Treiman 2004). The special channel is defined by temporary policies for certain groups of people under special circumstances, decided jointly by various government departments (Chan and Zhang 1999). Because most permanent migrants move for non-family reasons (discussed below), state sponsorship is a major mechanism for selecting permanent migrants.

urban population and all groups comprise the *de facto* urban population. This study compares both relatively-under studied permanent migrant categories to urban non-migrants.

China's Transition Economy

The establishment of the hukou system in China epitomizes the central role played by the state in the regulation of migration and economic activities in command economies. Yet, to understand how migration may be linked to the rewards that individuals may receive from their economic activities, it is necessary to understand that China has undergone a series of significant transformations over the past several decades characterized by the growing importance of “market” mechanisms for regulating both economic activities and the rewards for economic activities. This has led some to describe China as a “transition” economy (Nee and Cao 1999, 2002, 2004).

The transition to a market-based form of economic organization is defined by a series of changes emanating from the growth of privately-held businesses. Between 1998 and 2002, the private sector's share of industrial workers rose from 44 percent to 62 percent with the decline of publicly-owned enterprises (Dong and Xu 2009). The growth of privately-held businesses signals increased competition throughout the system. Firms must compete for revenue from the products and services that they produce, as well as for employees who are “free” to sell their labor to the highest bidder (Nee and Cao 2004). In turn, employers must establish an incentive system that rewards employees for their skills, training, and performance. Performance-based incentives are a departure from the reluctance of former state-controlled enterprises in the command economy to link wages to productivity under the conviction that “all can eat from the same big pot” (Liu 1998).

The growing prevalence of market-based institutions is important because it signals a change in the way rewards, in general, and wages, in particular, are allocated. According to proponents of the transition economy thesis, wages are increasingly linked to the productivity of firms (which favors private enterprises), types of occupations, and human capital. Such factors are prominent in explanations of the higher incomes received by those in “newer” sectors of the economy (Bian and Logan 1996; Zhou 2000) and the lower incomes of employees of collectively-owned enterprises (Liu 1998). Analyses conducted over the last several decades also draw attention to education. The returns to education are greater in cities (Liu 2005) and have increased over time (Appleton, Song and Xia 2005; Bian and Logan 1996; Peng 1992; Zhang, Zhao, Park and Song 2005; Zhou 2000).

Although the basic contours of the transition to a market economy are beyond dispute, the implication that the rise of human capital has been accompanied by a corresponding decline in the significance of other forms of capital that were important in the pre-transition period has not gone unchallenged. This is especially the case for political capital; that is, for those resources that emanate from political status and political affiliations. Political affiliations in a state-run economy provide entrée to positions that are highly rewarded precisely because

⁵Permanent migration from urban to rural areas is uncommon and an investigation of this topic is not possible with our data. Also beyond our purview are village-to-village moves, along with the changing intricacies of defining “urban” in China (Shen 2005; Chan 2007).

of the pre-eminent position of the state as the regulator of economic affairs. Walder (2002, 2003) claims that politics provides a route to elite status that parallels the route provided by firms in the private sector.

This view is supported by some empirical research which suggests that political capital, as indicated by cadre status or party membership, remains important as a determinant of income during the reform era (Bian and Logan 1996; Zhou 2000). Bian and Logan (1996) further suggest that political party membership has become more important as a determinant of income. This may be due to the “creep” of educational credentialism along with political allegiance as conditions for membership in the Communist Party, which in turn paves the way for jobs that pay well. Bian, Shu and Logan (2001: 834) show that “party membership significantly increases the mobility into elite managerial positions in both sectors, but nonparty members have little chance of moving into such positions in the state sector and plenty of opportunities to do so in the non-state sector. Furthermore, college education increases nonparty members’ chances of moving into elite positions in the non-state sector, but this effect never exists in the state sector.” In a nutshell, political capital may operate with education in complex ways.

HYPOTHESES

Up to this point, we have established that China has a transition economy characterized by the simultaneous existence of institutions that are consistent with both market-based and command-based principles of economic organization. Prominent among the latter is a system of household registration designed to regulate the mobility of labor in the service of central planning. A goal of the household registration system is to limit the incentive to migrate by restricting access to employment and various benefits among those who do not have official permission to move. At the same time, this system provides opportunities for selected individuals to change both their place and status of registration.

As noted, migration flows in China consist of the “floating population” that moves outside the system of household registration and permanent migrants who go through formal channels within the framework of the hukou system to change their place of residence (Liang and Ma 2004). Many studies of wages in urban areas tend to ignore such distinctions or focus exclusively on the precarious economic circumstances of non-hukou migrants in particular cities (Appleton, Song and Xia 2005; Bian and Logan 1996; Liu 1998; Peng 1992; Zhou 2000). However, some research suggests that hukou migrants tend to be relatively advantaged precisely because they have characteristics that are deemed valuable for urban labor markets. The typical permanent migrant moves for educational or job-related reasons (Liang and Ma 2004).⁶ As a result, permanent migrants tend to have relatively high levels of education and are candidates for prestigious white-collar jobs that are typically obtained through formal channels as opposed to the informal networks that tend to channel workers into lower-paying jobs (Fan 2002; Liang 2004; Liang and Ma 2004). In addition, extra compensation may be necessary to entice workers to leave their family and friends behind to

⁶Rural residents can obtain an urban hukou with a superior performance on nationwide examinations and by matriculating to institutions of higher education in urban areas.

move to a new location. *This suggests that permanent migrants will earn more than their non-migrant urban counterparts.*

Although some studies do not distinguish urban from rural migrants, place of origin should be recognized. Deng and Gustafson (2006) show that permanent rural migrants have higher chances of being employed and greater earnings than urbanites in general, even after various background factors are controlled. In contrast, Liang's (2004) analysis of the 1990 census shows that permanent migrants of rural origin are less likely to attain prestigious occupations than permanent migrants of urban origin. This suggests that permanent urban migrants are advantaged in urban labor markets. Collectively, these findings indicate that permanent migrants should be distinguished by their origins. Extending Liang (2004), *we expect that urban permanent migrants will earn higher wages than both urban non-migrants and their rural migrant counterparts.*⁷

There are several potential explanations of differences in economic outcomes by migration status. Market transition theory points to human capital. Urban permanent migrants earn higher wages because they have greater education, which provides access to occupations that are highly remunerated in "modern" labor markets (Chan, Liu and Yang 1999). If this view is correct, *income differences by migration status should disappear after indicators of human capital are controlled.*

An alternative explanation contends that "institutional affiliations with the state translate into greater opportunities in the urban labor market" for permanent migrants (Fan 2002: 108). The state and the party have been resilient. Chinese "party hierarchies have survived largely unchanged while directing market reform" and the income advantages for taking political office are significant (Walder 2003: 899). Presumably, institutional affiliations with the state provide political capital that can be mobilized to pursue economic opportunities. While the state and the party no longer have a monopoly on providing economic opportunities, the market may (ironically) enhance the political position of cadres who are "increasingly tied to their role as regulators or agents of state who manage production in state owned firms" (Zhou 2000: 1167). This possibility is consistent with findings from a survey in Guangzhou which shows that permanent migrants enjoy an income advantage even after controlling for education, occupation, and sector of employment (Fan 2001, 2002, 2008). This residual effect of migration status after measures of human capital are controlled is interpreted by some (perhaps erroneously) as indirect evidence for the importance of connections to political institutions. Accordingly, *income differences by migration status should disappear after indicators of political capital are controlled.*

Earnings are potentially affected by numerous other factors, such as geographic location, occupation, and economic sector. Hypotheses for these variables are straightforward. Higher earnings are expected in the largest urban areas that offer abundant opportunities as centers of economic and administrative activities. Similarly, higher salaries are expected among workers in more skilled occupations and the private sector that has emerged as part of the

⁷This expectation is tenuous due to the difficulty of gleaning predictions from some studies. For example, Fan (2002) compares rural and urban migrants (combined) to urban non-migrants using a local survey. Deng and Gustafson (2006) compare rural migrants to urban migrants and urban non-migrants (combined). Such practices require one to remain open to any possibility.

new economy (Fan 2001; Nee and Cao 2002; Nee and Cao 1999). At the same time, the implications of these variables for the relationships that are of primary interest here are difficult to determine from a literature that has not focused extensively on permanent migrants. Despite the lack of agreement on how to define various economic sectors, the market transition debate implies that reward mechanisms vary across them. Permanent migrant status may be relatively more important for earnings in the state sector than the highly marketized private sector. An advantage in the state sector would stem from permanent migrants “favored” status and sponsorship by state institutions that must also compete with those in the private sector for talented individuals. Cadre status would be less relevant as a credential or an indicator of skill/productivity in the private sector, though one could imagine situations where employees with political connections might be sought by private enterprises that must deal regularly with state regulatory agencies. Needless to say, an exploration of the impact of sector promises to be especially enlightening given the potentially complex relationships between political capital and education in bifurcated transition economies.

DATA AND MEASURES

Our analysis is based on the 2003 General Social Survey of China (CGSS). The CGSS relies on a multi-stage stratified sampling procedure that starts with the selection of districts/counties (urban and suburban) as primary sampling units and culminates in the selection of one individual per household for a personal interview to generate a representative sample of urban residents. The survey was administered to 5,894 respondents, with a response rate of 77%.

We analyze the responses of 975 respondents who are in the universe of interest: employed men with positive earnings in the working-age population who have a local urban residence and a non-agricultural status.⁸ This restricts the sample to non-migrants and permanent migrants to cities. Permanent migrants are defined here as adult migrants (i.e. migrated at age 16+) who had a non-agricultural hukou at the time of interview and were registered at the household of interview.⁹

The vast majority of the case attrition from the original sample stems from restrictions that were made to ensure that the analysis sample corresponds to the universe.¹⁰ Of those that remained after the potential analysis sample was identified, some were lost because they could not be clearly identified as a non-migrant or as an eligible permanent migrant. To reduce the potential for endogeneity in the relationship between migration status and

⁸About 90% of permanent migrant men reported that they migrated to their current place of residence for non-family reasons.

⁹To reiterate, changes in the place and status of hukou registration are necessary for peasants to migrate permanently to cities. For people who change their place of registration, a change in status might come simultaneously, afterwards, or never. For people with non-agricultural status living in rural areas, no change in hukou status is necessary when the place of registration is switched to an urban area. Those who continue to hold an agricultural-status hukou after changing their place of registration to an urban area are not permanent migrants. It should also be noted that as a result of the survey design we are not able to distinguish permanent migrants who eventually returned to their origin place from those permanent migrants who were originally from another town or city. Those sent-down youth who returned to their home town or cities fall into this category.

¹⁰The weighted sample size for men aged 18–59 with local urban residence and non-agricultural hukou status is 1,960. Once we add the condition of “not retired, not in school, and with positive income,” the sample size drops to 1,106. This reduction reflects high urban unemployment. The overall labor force participation rate for urbanites aged 16–60 was about 75% in 2001 and the unemployment rate was 13% in five large cities (Cai et al 2004).

earnings, we also exclude those who hold local-valid non-agricultural hukou status because this “blue stamp” can be purchased from the local government. Listwise deletion of missing data is responsible for the loss of 89 cases. Temporary migrants cannot be included in the analysis because the sampling frame of the CGSS relies on household registration records. For temporary migrants, these records are located in the place of origin rather than the destination. The survey was nevertheless administered to some respondents who were not registered in the sampled household. Because we are not able to differentiate between temporary migrants and visitors, these respondents are excluded.

Dependent Variables

The dependent variable is the natural log of hourly earnings (in Chinese Yuan), which is computed by dividing the respondent’s personal income in the previous month by the estimated number of hours worked. The numerator includes income from all sources: wages, bonuses, profit sharing, dividends, interest from bank deposits, and contributions from other sources.^{11, 12}

This is referred to as a measure of hourly “earnings” for convenience, despite the imprecision of doing so for a term that is typically reserved for wages, salaries, commissions, bonuses, and other income from employment. These types of earnings are likely to account for most of the income reported by our sample of employed men of working-age. This measure of income cannot be partitioned into various sources.

Independent Variables

Migration Status—Chan et al (1999) point out that one of the major reasons why permanent migration is understudied is the absence of the requisite data. One of the strengths of the CGSS is that it collected migration histories. Respondents were asked to indicate the year of migration, the type of origin community, and the type of destination community for a permanent move that involved a change in their place of household registration. To assure the accuracy of the retrospective information, the respondents referred to their household registration book during the interview.

These questions permit the identification of permanent rural-to-urban migrants, permanent urban-to-urban migrants, and urban non-migrants. Hukou origin is counted as the place of registration right before the first migration, with places ranging from rural villages and towns to provincial capitals and municipalities under the direct control of the central government. *Permanent rural migrants* to cities are those of rural hukou origin who held a non-agricultural hukou status and an urban place of hukou registration at the time of the survey. *Permanent urban migrants* are people of urban origin and had changed their place of hukou registration to the city or town of residence by the time of the survey. These two groups are contrasted to urban natives who were not migrants.¹³

¹¹The results are not sensitive to the decision to include work hours in the denominator of the measure, as opposed to treating it as a covariate in the right-hand side of the equation.

¹²Income may be under reported, especially by those with higher incomes. The implication of measurement error here is that income differences between the high and low income groups will be underestimated. Therefore, estimates are likely to be biased in a conservative direction.

Two Types of Capital—As noted above, competing explanations of inequality focus on human capital and political capital. Human capital is measured by number of years of education (the primary measure) and by years of work experience, determined by subtracting years of education plus 6 from age. Because age, years of education and work experience are essentially linear functions of one another, age is excluded from the analysis (Pearson's r for age and experience exceeds .9).¹⁴

Political capital refers to resources emanating from political position and political connections. Access to political capital in China requires party membership. Following Hauser and Xie (2005), members of the Communist Party are contrasted with those who are not members.

Party membership is just one potential indicator of political capital. Ideally, distinctions should be made between “rank-and-file” members and those who hold official positions as “cadre” or as “leading party cadre.” Fortunately, the latter can be identified in the CGSS which records “leading cadre” as an occupational category. Treating this as a type of occupation here is justified by the fact that the leading cadre typically hold high-level management positions that are acquired through political appointments (see also Bian, Shu, and Logan 2001). The CGSS approach to identifying leading cadre also allows occupation to be easily incorporated into the same analyses as party membership. This is important since we want to know whether party membership matters for earnings, both before and after occupation is controlled.¹⁵ Party membership could affect earnings directly or indirectly through occupation. The latter might be expected if party membership is simply a type of credential that is required for certain occupations.

Other Covariates—Other covariates that are of interest include *full-time employment status* (employed 35 or more hours per week), *occupation*, and *economic sector* of employment. *Occupation* is measured with a set of seven dummy variables that range from “professionals” and “office workers” to “service workers” and “operatives.” As noted, the CGSS singles out “leading cadre,” a numerically small group that is substantively meaningful as a politically advantaged class of workers. *Economic sector* is measured with dummy variables that identify employees of state-related institutions, state-owned enterprises (the reference category), “private-sector” enterprises, and collectively-owned enterprises. State-related institutions encompass government agencies, state-operated institutions such as schools, and the Communist Party. State-owned enterprises are controlled directly by the state or indirectly by the state through its role as the major shareholder. The private sector includes individually-operated enterprises, privately-owned

¹³The year of birth is taken as the starting point in the migration histories, except for those age 48–59 who were born before the household registration was instituted in 1955. This year serves as the starting point in permanent migration histories for these “older” individuals. If one migrated from a rural settlement to an urban area and did not return before the end of 1955, the origin of this person will be counted as urban.

¹⁴To maintain parsimony, quadratic terms to identify curvilinear relationships between experience (or age) and earnings are excluded. The preliminary analysis revealed that these terms are not significant and the results are not sensitive to this decision.

¹⁵Party membership and occupation are significantly associated (design-based $\chi^2 = 17.8$, $p < .001$). The correlation is not perfect. Over 80% of leading cadre, 36% of professionals, 36% of office workers, 11% of commercial workers, and 15% of operators are party members. Conversely, 16% of party members are leading cadre, 10% are professionals, and 13% are office workers. Among non-party members, just 1% are leading cadre, 9% are professionals, and 11% are office workers.

enterprises, and foreign-investment enterprises. Collectives are reputed to be non-competitive and to offer low pay.

The last variable is geographic location. This is necessary to include because of an east-west economic divide and uneven development. Unfortunately, the survey only permits residents of three specific cities to be identified. Residents of other cities are identified solely by region. Therefore, a set of dummy variables recognizes residents of Beijing (the reference), Shanghai, Tianjin, and various cities grouped by region. The inability to identify specific cities is a limitation that prevents a multilevel modeling approach to take into account city-level effects.

Methodological Notes

Because the sample is based on multi-stage stratified sampling with unequal probabilities of selection, all point estimates are based on weighted data and statistical tests include adjustments for the complex sample design in the calculation of standard errors. In addition, due to the small sample sizes for some groups, we identify borderline significant coefficients ($p < .10$) in order to reduce the likelihood of committing Type II errors.

RESULTS

Descriptive statistics presented in Table 2 provide preliminary insights into the circumstances of urban men in China who are not part of the “floating” population. Although the majority of such men are non-migrants (58%), substantial shares are rural migrants (22%) and urban migrants (20%). Hence, permanent migrants are 42% of the non-floating urban population in China, undoubtedly a result of the continuing rural-urban permanent migration since the late 1950s.

The substantial size of this population is an important fact that is often overlooked because of researchers’ preoccupation with the floating population. There are probably between 80 and 108 million men between the ages of 15–59 who are permanent migrants in urban areas.¹⁶ The overall permanent migrant stock of working-age men in urban China may be equivalent to the total populations of Germany (82 million), the Philippines (98 million), or Mexico (111 million). Adding women, the total population of urban permanent migrants may be in line with the total populations of Pakistan or Brazil (Liang and Ma 2004).

The data also suggest that urban migrants have the highest hourly earnings (6.1 Yuan) and non-migrants have the lowest (4.9 Yuan). Rural migrants average about 5.7 Yuan per hour. The similarity in the means for urban and rural migrants is responsible for the overall insignificance of the Wald test for migration status ($F = 1.8$, n.s.) since, as we see subsequently, there are significant differences between specific groups.

¹⁶This was determined by applying the 95% confidence intervals [.36, .485] for our estimate of the proportion of the de jure urban adult male population age 15–59 who are permanent migrants (.42) to an estimate of the de jure urban adult male population age 15–59. The latter was determined from a 2008 estimate of the permanent urban population (606.67 million; see chinadataonline.org) and an estimate of the share of the urban population that was male 15–59 (.368) (United Nations, 2009). These rough estimates are subject to numerous assumptions.

This pattern of earnings differences is consistent with numerous other characteristics of migrants and non-migrants. Differences in full-time employment are trivial, but urban migrants and rural migrants tend to have more years of education (11.8 and 11.2, respectively) than do their non-migrant counterparts (10.4). Both migrant groups are also at least twice as likely as the reference group to be party members: 34% of urban migrants, 39% of rural migrants, and 15% of non-migrants belong to the Communist Party. This is consistent with the idea that party membership is likely to facilitate the process of becoming a permanent migrant.

Most workers are employed in some capacity by the state or by privately-owned firms. However, more than two-thirds of rural and urban migrants work in state-enterprises and state-institutions, compared to only half of non-migrants. Surprisingly, non-migrants are about twice as likely as migrants to work in the private sector (40% versus 23% for rural migrants and 17% for urban migrants). As for occupation, one-fourth of rural migrants, 17% of urban migrants, and 11% of non-migrants are employed in more prestigious occupations as “leading cadre” or white collar professionals. Lastly, rural migrants are the most likely to live in the central region and the least likely to live in the large eastern cities of Beijing, Tianjin, and Shanghai.

Table 3 presents unstandardized coefficients from Ordinary Least Squares regressions for the total sample to determine whether the earnings of migrants differ from non-migrants and, if so, to identify the sources of differences. The first model shows the bivariate association for each predictor. Models 2–6 demonstrate the impact of geographic location, forms of capital, and employment-related variables on the main relationship of interest. This sequence of models is “loosely” based on the assumption that forms of capital affect earnings through employment.

The bivariate results presented in the first column summarize the total association between earnings and migration status. Model 1 shows that both urban migrants (.28, $p < .05$) and rural migrants (.21, $p < .05$) tend to earn more than urban non-migrants. Significant differences also remain after region is controlled in Model 2. Such findings are consistent with the first hypothesis that permanent migrants tend to enjoy labor market advantages regardless of origins. Contrary to the hypothesis that urban migrants are especially advantaged, the coefficients for the two migrant groups are quite similar in Model 1 (.21 vs. .28) and in Model 2 (.30 vs. .30). Additional tests (not shown) reveal as well that sampling error cannot be ruled out as a source of the observed difference in earnings between rural and urban migrants in Model 1.

Some headway toward identifying the source of the permanent migrant advantage can be made by examining models that include human capital and political capital. The coefficients for rural and urban migrants shown in Model 2 are substantially reduced after controlling for human capital in Model 3. The estimate for urban migrants is reduced by two-thirds from .30 to .10 (n.s.) and that for rural migrants is halved from .30 to .15 ($p < 0.05$). It should be noted that earnings are positively associated with both indicators of human capital in all models, but additional analysis confirms that this reduction is attributable to education rather than work experience (not shown).

The results for party membership are less impressive, given that party membership is associated with both migration status (Table 2) and earnings ($b = .31$, $p < .001$ in Model 1 of Table 3). Model 4 shows that the coefficients for permanent urban and rural migrants are only slightly reduced when party membership is controlled. Party members may tend to earn more than non-members. However, this variable does not explain the effect of migration status. Moreover, Model 5 suggests that there is little added benefit of including party membership in models with human capital, if the goal is solely to understand the effect of migration status. When education is included in the model, adding party membership has little effect on either the fit of the model (adjusted $R^2 = .24$ in Models 3 and 5) or the parameter estimates for the migration status dummies. The failure of party membership to achieve significance in Model 5 also suggests that it is associated with earnings because of its association with education.

Model 6 presents the results for the full set of variables, including employment status, sector of employment, and occupation. Adding these three variables increases the explained variance by nearly one-half, from .24 to .34. Nevertheless, except for the slight reduction of the borderline significant coefficient for rural migrants in Model 5, the previous results are unaffected by the inclusion of these employment-related variables. Of most interest here are the effects of economic sector and occupation. Employees of state-related institutions ($b = .13$, $p < .10$) tend to earn more than those employed in state-owned enterprises who, in turn, earn more than those in privately-owned ($b = -.28$, $p < .05$) and collectively-owned enterprises ($b = -.25$, $p < .05$). As for occupation, leading cadre tend to earn more than professionals and those in the other occupational categories in the multivariate model. Such results demonstrate the continuing importance of the state for livelihoods in China's economic transition.

The last set of coefficients in Table 3 shows differences in earnings across both regions and cities. Those employed in Beijing tend to earn more than residents of Tianjin, but not more than those in Shanghai and other eastern cities. In keeping with an east-west income gradient, residents of Beijing also tend to earn more than their urban counterparts in central and western regions.

Finally, full-time employees tend to earn less per hour than part-time employees. This result could be an artifact of the inclusion of non-wage and non-bonus income in earnings, or it could be due to endogeneity if effort is a negative function of earnings in some situations. To reduce ambiguity about the effect of employment status, we replicated the results for full-time workers (see the Appendix). These results are very close to those for the total sample. Among full-time workers, urban and rural permanent migrants tend to earn more than non-migrants, and earnings differences stem primarily from the effect of education. The only difference of note concerns rural migrants. Among full-time workers, rural migrants enjoy an earnings advantage in every model (albeit one that is substantially reduced by education and the other covariates).

Tests for Interactions

In focusing on the linkage between migration and earnings as a function of different forms of capital, one should not lose sight of the broader context. In a transition economy we

might expect the effects of migration status, human capital (education), and political capital (party membership) on earnings to vary by economic sector. Significant interactions between economic sector and both education (e.g., total sample, $F=4.59$, $p < .01$) and migration status (e.g., total sample, $F=1.99$, $p < .07$) were revealed in the preliminary analysis. The tests for interactions between party membership and sector were not significant. Still, significant interactions point to the need for additional diagnostics in the form of a Chow test. The Chow tests for all workers (e.g., $F = 3.53$, $p < .001$) and full-time workers ($F = 6.19$, $p < .001$) indicate that the parameter estimates for the full set of covariates across different economic sectors are highly unlikely to be equal. Therefore, employees in different sectors comprise distinct populations whose earnings are structured differently by the covariates under consideration.

Consistent with this finding, we present multivariate results for employees in each sector in Table 4 (except for those employed in collectively-owned enterprises due to small N's). These results indicate that earnings are similar for migrants and non-migrants in the private sector. The situation is much different for employees of state-owned enterprises and state-related institutions. Both urban migrants ($b=.17$, $p < .10$) and rural migrants ($b=.22$, $p < .05$) tend to earn more than non-migrants who are employed in state-owned enterprises. Unlike rural migrants, urban migrants ($b=.19$, $p < .05$) also earn more than non-migrants in state-related institutions. In short, *migrants tend to enjoy an earnings premium in the state sector, not the private sector*, independent of other measurable characteristics. This is in keeping with the importance of the formal channel for selecting high quality permanent migrants.

Coefficients for the other covariates are revealing as well. Migrants may not have a relative advantage in the private sector where those with the highest level of education are at a distinct advantage. Indeed, *the greatest returns to education are offered by firms in the private sector* ($b=.13$, $p < .001$). At the other extreme, we see that the returns to education in state-related institutions ($b=.05$, $p < .01$) are less than half of those in the private sector. Interestingly, the parameter estimate for education among employees of state-owned enterprises, falls between these extremes ($b=.09$, $p < .001$). This intermediate value is noteworthy because state-owned enterprises may be wholly owned or only partially owned (or “partially privatized”) by the government.

Besides the failure of party membership to achieve significance in any model, the coefficients for occupation are also revealing. Consistent with the greater returns to education in the private sector, occupational differences in income are more pronounced among firms in the private sector than the state sector.¹⁷ In the private sector, leading cadre and professional workers who are at the highest rungs of the occupational ladder earn substantially more than blue collar operatives and somewhat more than office workers. Occupational differences are much more compressed among employees of state-owned

¹⁷While it might be counter intuitive to see leading cadres in the private sector, 3% of all males in our sample who were employed in the private sector reported their occupation as “leading cadre.” Similarly, about 3% of men working in the state-owned enterprises are leading cadre. The presence of leading cadre in the private sector is not impossible because there are work units under joint ownership by the state and the private owner. The CGSS identifies ownership of this type of work unit according to whether a majority of shares is held by the state or by private interests. So some units are classified as private although they do keep a state-owned component inside under the supervision of “leading cadres”.

enterprises and state-related institutions. Nevertheless, occupation is a significant predictor of earnings using the conventional .05 criterion for employees in both the private sector ($F=3.62$, $p < .01$) and the state-enterprise sector ($F=3.14$, $p < .01$). It is also a borderline significant predictor for employees of state institutions ($F=1.99$, $p < .10$).

Given previous findings regarding the potential importance of party membership and education in the state sector (Bian, Shu, and Logan 2001), we also tested for a three-way interaction between these variables (i.e., sector*party*education). The inclusion of this interaction term did not significantly improve the fit of a model with the corresponding two-way interaction terms ($F=1.25$, $p = .30$). Lastly, the power of these tests might be reduced because of the low number of observations in the collective sector, so we separately tested for an interaction between party and education for those in the state sector. The party*education interaction was positive and significant for those in both the *state-enterprise sector* ($b_{\text{party*education}} = .07$, $p < .05$) and the *private sector* ($b_{\text{party*education}} = .24$, $p < .001$) in multivariate models. In short, educated party members appear to enjoy earnings advantages in some situations.

CONCLUSION

China's rapidly developing economy has been accompanied by a massive volume of internal migration to cities. Our estimates indicate that the number of migrant men alone is equivalent to the total populations of countries ranging in size from Germany to Mexico. In addition to its unprecedented scale, Chinese internal migration is unique because it is occurring in the shadow of a household registration system that is an institutional mechanism for regulating population movement. This household registration system is responsible for two migration streams to cities: temporary migrants who move without approval and permanent migrants whose move is approved by the state. To this point, knowledge about these streams has been based on non probability or sub-national samples, such as Fan's (2001, 2002) research conducted in the city of Guangzhou.

Using data on migration and earnings of men from a nationally representative survey, our first objective was to determine whether permanent migrants are economically advantaged or disadvantaged. Based on the criteria for changing registration status, we hypothesized that permanent migrants to cities tend to have higher earnings than non-migrant urbanites. This expectation was supported. Permanent migrants, regardless of origin, earn more than their non-migrant counterparts. Among permanent migrants, the difference in earnings between those with urban origins and those with rural origins is not significant. Thus, evidence for the hypothesis that permanent migrants with urban origins are the most advantaged is equivocal, at best.

Our second objective was to identify the source(s) of economic advantage. This is an important issue within the context of current debates about the extent to which market-based reforms during a time of economic transition are responsible for shifting the basis of inequality in earnings from political capital to human capital. In keeping with market transition theory, the results suggest that the earnings advantage of permanent migrants is

closely linked to human capital (education). The effect of party membership is paltry by comparison and may be a spurious function of education.

Although such findings are enlightening, additional analysis revealed that the additive models upon which they are based are incomplete. A comprehensive understanding of how earnings are generated in the transition economy must consider the complex interactions between different migration statuses and forms of capital in particular economic sectors. Permanent migrants may have an advantage that is tied to their higher *levels* of education, but tests for interaction revealed that the migrant advantage is largely restricted to those in state-owned enterprises and state-related institutional sectors. This is understandable within the context of the role of the state in sponsoring permanent migration among skilled personnel who can serve in supervisory capacities in government establishments.

The importance of economic sector for understanding earnings, of course, extends beyond the findings for migration status. Involvement in the market sector is tied to greater inequality in earnings by education and occupation. Those in private sector firms enjoy the greatest returns to education and occupational position, followed by those in state-owned or partially privatized firms and state-related institutions. Such findings portend greater inequality in the future if market-based principles of economic organization assume greater importance.

The small or null effects of party membership on earnings in most analyses might lead some to sound the death knell for political capital as an important determinant of economic status in China. In particular, the case for the general importance of the political route to higher earnings is undermined by our findings that: (1) party membership has no independent effect on earnings in additive models, (2) leading cadre status does not provide higher earnings than non-political professional occupations in bivariate analyses, and (3) few persons become leading cadre. It is difficult to imagine that this will change given the increasing momentum of market reforms and the expansion of the private sector.

At the same time, a more nuanced view must acknowledge the *specific* conditions under which party membership remains important and may continue to be important in the future (see also Bian, Shu, and Logan 2001). In both state-run enterprises and the private sector, those who are highly educated and who are party members have particularly high earnings.

¹⁸ Of course, these findings must be explored further. Party membership may be important for different reasons in different sectors. In the state sector, party membership can promote ascendance in the organization hierarchy if it helps to establish trust by serving as an indicator of allegiance to government goals and party discipline among those who are highly educated. In the private sector, party membership might be an asset for highly skilled employees with positions in firms who must deal regularly with government regulation or it can simply be a “benign” indicator of accomplishment for high-achieving individuals. At minimum, such results require acknowledgement of the special circumstances in which political capital may have an economic payoff in both the state and private sectors of China’s transition economy.

¹⁸Leading cadre who are likely to be politically connected also tend to enjoy earnings-related advantages in the private sector.

In closing, future studies of the economic integration of migrants can build on our research in several ways. An obvious extension of this research would be to examine the implications of permanent migration and different forms of capital on both the earnings of women and gender inequality in earnings (currently in progress). Such an effort must be informed by perspectives that continue to draw attention to how economic and political institutions may affect economic outcomes under market-based reforms. The latter, of course, is not restricted to party membership given that the household registration system is a formal mechanism created by the state to facilitate selective migration to cities. Because the hukou system creates two classes of migrants, future analyses should also strive to simultaneously include temporary and permanent migrants to comprehensively demonstrate how the state-related auspices of migration affect economic outcomes. This must be done with a research design that allows investigators to determine the extent to which differences in observed economic outcomes stem from differences in selective migration as opposed to selective adaptation. Such an undertaking will require, in turn, attention to both the timing of migration and the timing of different forms of capital accumulation in both origins and destinations. These challenges for future research are substantial.

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Table 1

Urban Population by Migration Status

Urban Population					
	De Facto	De Jure	Origin	Destination	Destination as Hukou Place of Residence
Non-migrants	Yes	Yes	Urban	-----	-----
Permanent Migrants	Yes	Yes			
Urban			Urban	Urban	Yes
Rural			Rural	Urban	Yes
Temporary Migrants	Yes	No			
Urban			Urban	Urban	No
Rural			Rural	Urban	No

^a Although theoretically possible, few urban non-migrants have agricultural status.

^b Although theoretically possible, few rural people have non-agricultural status.

Table 2

Descriptive Statistics (N=975)

	Total	Migration Status			Test Statistic F
		Urban Non-Migrants	Rural Migrants	Urban Migrants	
Migration Status					
% Urban non-migrants	57.9				
% Rural migrants	21.9				
% Urban migrants	20.3				
Earnings					
Mean hourly (Yuan, not logged)	5.3	4.9	5.7	6.1	1.8
Human Capital					
Mean years of experience	26.3	25.5	27.6	27.2	1.8
Mean years of education	10.9	10.4	11.2	11.8	8.4***
Political Capital					
% Party member	23.8	14.7	38.5	33.7	19.9***
Employment Status					
% Full time	95.4	95.9	95.2	94.4	.2
Sector					
% State Enterprise	38.8	35.2	37.0	50.8	
% State-related institution	21.7	17.7	31.0	23.1	
% Private	31.4	39.7	22.6	17.3	
% Collective	8.1	7.4	9.3	8.8	
Occupation					
% Leading cadre	4.7	3.5	7.5	5.3	3.0**
% Professional & technical	10.5	7.2	18.2	11.5	
% Office workers, & staff	12.7	11.9	10.0	18.0	
% Commercial & service workers	11.2	14.4	6.9	6.7	
% Farming, forestry, etc.	1.0	1.6	.2	.4	
% Operators-prod. & trans equip.	38.7	39.1	37.1	39.6	
% Other unsorted wkrs.	21.1	22.3	20.1	18.5	
Region					1.8***

	Total	Migration Status			Test Statistic F
		Urban Non-Migrants	Rural Migrants	Urban Migrants	
% Beijing	2.3	2.8	.5	2.8	2.8
% Tianjin	1.9	2.5	.3	2.1	2.1
% Shanghai	2.6	4.0	.0	1.4	1.4
% East cities	5.8	6.3	3.0	7.3	7.3
% East counties	24.3	26.8	20.0	21.7	21.7
% Central cities	6.5	6.1	7.3	6.6	6.6
% Central counties	36.7	32.9	49.2	34.0	34.0
% West cities	6.8	4.4	6.9	13.4	13.4
% West counties	13.2	14.2	12.7	10.7	10.7

Note: The test statistic for each variable is Wald's F statistic (adjusted for complex sample design). To maintain consistency with multivariate analyses, the statistical tests for earnings are based on a logarithmic transformation. All data are weighted.

+ p < .10;
* p < .05;
** p < .01;
*** p < .001

Table 3

OLS Regressions: Log of Hourly Earnings for All Workers (N=975)

	Bivariate		Multivariate					
	Model 1 b		Model 2 b	Model 3 b	Model 4 b	Model 5 b	Model 6 b	
Migration Status								
Urban non-migrants (ref.)	----		----	----	----	----	----	
Rural migrants	.21 [*]		.30 ^{**}	.15 [*]	.23 [*]	.14 ⁺	.12	
Urban migrants	.28 [*]		.30 ^{**}	.10	.24 [*]	.10	.08	
Human Capital								
Experience	4.0E-03			.02 ^{**}		.01 [*]	.01 ⁺	
Year of education	.11 ^{***}			.12 ^{***}		.12 ^{***}	.09 ^{***}	
Political Capital								
Party member	.31 ^{***}				.28 ^{**}	.06	-.03	
Employment Status								
Full time	-.89 ^{***}						-.98 ^{***}	
Sector								
State-owned enterprise (ref.)	----						----	
State-related institution	.41 ^{***}						.13 ⁺	
Private	-.20 [*]						-.28 [*]	
Collective	-.29 [*]						-.25 [*]	
Occupation								
Leading cadre (ref.)	----						----	
Professional & technical	-.04						-.25 [*]	
Office workers & staff	-.42 ^{**}						-.34 ^{**}	
Commercial & service workers	-.66 ^{***}						-.40 [*]	
Farming, forestry, etc.	-.49						-.26	
Operators–prod. & trans. equip	-.76 ^{***}						-.40 ^{**}	
Other unsorted workers	-.49 ^{**}						-.12	

	Bivariate		Multivariate					
	Model 1 b		Model 2 b	Model 3 b	Model 4 b	Model 5 b	Model 6 b	
Region								
Beijing (ref.)								
Tianjin	-.55**		-.54*	-.31*	-.52*	-.31*	-.34*	
Shanghai	.05		.11	.18	.17	.19	.23	
East cities	-.29		-.32	-.17	-.27	-.17	-.10	
East counties	-.52**		-.54**	-.36*	-.52**	-.36*	-.36*	
Central cities	-.37		-.42+	-.26+	-.36	-.25+	-.30+	
Central counties	-.75***		-.80***	-.51***	-.78***	-.51***	-.57***	
West cities	-.48*		-.58**	-.34*	-.57**	-.34*	-.43**	
West counties	-.55***		-.58**	-.33*	-.56**	-.33*	-.48***	
Constant			1.82***	-.04	1.76***	-.01	1.85***	
r ²			0.09	0.24	0.11	0.24	0.34	

Note: The cell entries are unstandardized regression coefficients (b) and all significance tests are based on weighted data with standard errors that are adjusted for the complex sample design.

⁺ p < .10,

* p < .05,

** p < .01,

*** p < .001.

Table 4

Multivariate OLS Regressions: Log of Hourly Earnings by Sector

	Private Sector b	State-Owned Enterprise b	State-Related Institution b
Migration status			
Urban non-migrants (ref.)	-----	-----	-----
Rural migrants	-.08	.22*	.08
Urban migrants	-.11	.17 ⁺	.19*
Human capital			
Experience	.01	.00	.01*
Year of education	.13***	.09***	.05**
Political capital			
Party member	-.14	.08	-.02
Occupation			
Leading cadre (ref.)	-----	-----	-----
Professional & technical	-.61	-.29	-.10
Office workers & staff	-.72*	-.30	-.26
Commercial & service workers	-.79*	-.41*	-.38*
Farming, forestry, etc.	-1.81**	.11	-.03
Operators–prod. & trans. equip.	-1.03**	-.27	-.17
Other unsorted workers	-.47	-.20	.05
Constant	2.09**	1.25*	2.15***
r^2	.39	.32	.37
N	215	426	278

Note: The cell entries are unstandardized regression coefficients (b) and all significance tests are based on weighted data with standard errors that are adjusted for the complex sample design. The coefficients for region and employment status have been omitted to simplify the table and are available on request.

⁺ p < .10,

* p < .05,

** p < .01,

*** p < .001.

Appendix

OLS Regressions: Log of Hourly Earnings for Full-Time Workers (N = 934)

	Bivariate		Multivariate				
	Model 1 b		Model 2 b	Model 3 b	Model 4 b	Model 5 b	Model 6 b
Migration status							
Urban non-migrants (ref.)	----		----	----	----	----	----
Rural migrants	.23 ⁺		.32 ^{***}	.19 ^{**}	.26 ^{**}	.17 [*]	.16 [*]
Urban migrants	.31 [*]		.33 ^{**}	.11	.27 ^{**}	.10	.11
Human capital							
Experience	4.0E-03			.02 [*]		.01 [*]	.01 ⁺
Year of education	.12 ^{***}			.12 ^{***}		.12 ^{***}	.09 ^{***}
Political capital							
Party member	.30 ^{**}				.28 ^{**}	.06	-.05
Sector							
State-owned enterprise (ref.)	----						----
State-related institution	.38 ^{***}						.15 ⁺
Private-owned	-.30 ^{**}						-.29 [*]
Collective-owned	-.29 ^{**}						-.23 ⁺
Occupation							
Leading cadre (ref.)	----						----
Professional & technical	-.10						-.27 [*]
Office workers & staff	-.43 ^{***}						-.34 ^{**}
Commercial & service workers	-.69 ^{***}						-.36 [*]
Farming, forestry, etc.	-.49						-.22
Operators–prod. & trans. equip.	-.77 ^{***}						-.39 ^{**}
Other unsorted workers	-.60 ^{***}						-.14
Region							
Beijing	----		----	----	----	----	----

	Bivariate		Multivariate				
	Model 1 b		Model 2 b	Model 3 b	Model 4 b	Model 5 b	Model 6 b
Tianjin	-.56*		-.55*	-.31*	-.53*	-.31*	-.35*
Shanghai	.05		.11	.19	.17	.20	.21
East cities	-.30		-.32	-.18	-.27	-.17	-.13
East counties	-.56**		-.58**	-.38**	-.56**	-.38**	-.38**
Central cities	-.36		-.42+	-.26+	-.36+	-.25+	-.31*
Central counties	-.78***		-.84***	-.55***	-.82***	-.55***	-.60***
West cities	-.53*		-.63**	-.37*	-.61**	-.37*	-.44**
West counties	-.73***		-.76***	-.52***	-.76***	-.53***	-.57***
Constant			1.82***	-.07	1.75***	-.04	.87**
r ²			.12	.28	.14	.28	.33

Note: The cell entries are unstandardized regression coefficients (b) and all significance tests are based on weighted data with standard errors that are adjusted for the complex sample design.

+ p < .10,

* p < .05,

** p < .01,

*** p < .001.