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Cumulative Causation of Rural Migration and Initial Peri-Urbanization in China*

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Abstract

This paper posits that rural migration feeds the high demand for cheap labor in peri-urbanization, which is driven by globalization, flows of foreign capital, and entrepreneurial local governments. While the gravity model and push/pull perspective ignore the dynamics of migratory course, we use the cumulative causation of migration theory to conceptualize social expectations for outmigration and social resources from migrant networks in destinations. Four major findings are drawn from this demographic analysis based on micro data from China's 2000 Census. First, the expectation of outmigration significantly increases outmigration, and this effect is independent of push factors. Second, foreign direct investment (FDI) contributes to attracting rural labor migrants from other provinces to peri-urban areas as it does to cities. Third, social resources from migrant networks play an important role in attracting rural labor migrants to both city and noncity destinations. Fourth, the importance of wage differentials declines in gravitating rural labor migrants to peri-urban areas. These findings provide tentative evidence that rural labor migration is indispensable during initial peri-urbanization. Infused with flows of FDI and entrepreneurial local governments, rural migration has created a favorable initial condition for peri-urbanization.

Keywords

rural migration; cumulative causation; peri-urbanization

Introduction

With its inception in the early 1980s, contemporary internal migration from rural to urban China gained great momentum from rapid economic growth and deepening reform in the mid 1990s. By 2000, rural migration from many origins had become self-perpetuating when streams of village youth joined the army of outmigration after leaving school until reaching middle age. As a result, rural migrant workers constitute a substantial proportion of the nonagricultural labor force, many of whom work in places far away from the origin village and beyond the province border.

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Rural-to-urban migration has captured most research interest stemming from the conventional wisdom of city-based urbanization. Only recently have some scholars called attention to the urbanization process in peri-urban areas, i.e., rural areas and small towns in between cities. Peri-urbanization, the process by which a peri-urban area becomes urbanized, is illustrated in a number of cases published in the field of urban studies (Lin 2006; Seto and Fragkias 2005). One key condition under which peri-urbanization arises is enormous inflows of rural labor migrants that dwarf the local population of a peri-urban area, where the entrepreneurial local government has invested in land development for industrial and commercial use and foreign capitalists have financed labor-intensive, export-led industries (Lin 2006). Several questions arise. Do rural labor migrants go to peri-urban areas for nonagricultural employment? What are the various degrees to which peri-urbanization spreads to different parts of the nation? Is foreign direct investment (FDI) a key condition that attracts rural labor migrants? Do the characteristics of rural migration affect city, town, and rural destinations?

This paper seeks answers to these questions taking three considerations into account. First, intensified global competition and FDI provide the capital basis for peri-urbanization (Jessop 2000). Second, land-leasing policy and public finance policy together motivate local governments to invest in land development and infrastructure for new industrial parks, economic and technological development zones, and other establishments in peri-urban areas (Tao et al. 2010). Third, stage-sensitive characteristics of rural migration affect its flows and destinations. While rural labor surplus, nonfarm employment opportunity differences, and income differentials are the major drivers and the relaxation of the rigid household registration (*hukou*) system is the major policy environment for initial-stage rural migration (Liang and White 1997; Johnson 2002; Cai 2001), perpetual outmigration and migrant networks play significant roles in fueling subsequent migratory movements (Massey et al. 1993).

The paper is organized as follows. Sections 2–4 discuss why globalization and FDI, land leasing policy and public finance policy, and the characteristics of rural migration influence peri-urbanization. The data and methods section operationalizes peri-urban areas, describes micro-data from the China 2000 Census and aggregate data from the National Statistical Yearbooks, and delineates the modeling strategy for outmigration and destination decisions, respectively. The results section documents the national pattern and provincial variations of the city, town, and rural destinations and estimates from the multivariate analysis. The conclusion section highlights how major findings from this demographic study advance our knowledge about the relationship between migration and peri-urbanization, of which we so far have had very little understanding.

Globalization, FDI, and Peri-urbanization

A core argument regarding economic globalization posits that spatially mobile capital and labor require the concentration of control functions in a few “global cities” and the decentralization of production functions throughout the world (Sassen 1991). Intensified global competitions foster a neoliberal trend when developing countries speed up urban place-making and urban place-promotion to capture and “fix” mobile capital (Jessop 2000).

Quantitative evidence from 23 countries confirms that economic growth, predictable behavior, trustworthiness, and commitment from government institutions, infrastructural development of sites, and lower tax rates are important factors in attracting FDI (Hsiao and Shen 2003). According to Hsiao and Shen's analysis of China's time-series data, FDI has a moderate immediate effect and a sizable long-term effect on gross domestic product (GDP), which, in turn, has a positive feedback effect on the growth of FDI. This is consistent with the Organization for Economic Cooperation and Development's (OECD) argument that FDI is an increasingly important source of capital that has created jobs and upgraded skills (OECD 2000). Zhang's (2002) time-series and cross-sectional analysis has found that China's urbanization during the 1978–2000 period was driven mainly by inflows of FDI, among other factors, such as economic growth and changes in urban policy, and FDI inflows contributed greatly to the coast-inland differences in their respective rates of urbanization. By 2003 FDI to China accounted for over 40% of the GDP and China had become one of the largest destinations for international capital (Wu 2009). Firm-level analysis of southern China suggests that small- and medium-sized businesses prefer agglomeration of firms in periphery areas at a given distance from the core city (Ng and Tuan 2003).

The literature on globalization, FDI, and peri-urbanization takes a top-down perspective. It pays less attention to the actual making of peri-urbanization settings in terms of new industrial parks, economic and technological development zones, and other economic establishments, as well as the mobilization of labor migration to those sites. The next two sections discuss these issues in turn.

Land-Leasing Policy and Local Finance Policy in China

China has 22% of the world's population and 7% of the world's arable land. The central government has been facing a dilemma between maintaining the arable land to feed its huge population and sustaining high economic growth through converting arable land to industrial and commercial use. The conversion of agricultural land for nonagricultural purposes has been one of the most contentious issues in China (Ho and Lin 2004). A central principle of the land-leasing policy is for the central or local government to take a peculiar middleman role in land leasing. Although the motive of this policy is for the government to regulate land conversion and prevent excessive industrial use, ironically, this enables local governments to occupy a monopolist-like position in the local land-leasing market.

The land-leasing policy stipulates that for converting any agricultural land use to nonagricultural purposes, the village collectivity, which owns the land, must not make any deals with enterprises directly, but instead, let the government handle it. A three-step procedure is often practiced (Tao et al. 2011). It starts with a contemporary version of land enclosure, by which the local government acquires land from villages for a relatively small compensation in the "public interest," as stipulated by the Land Administrative Law. Local governmental acquisition of farmland legitimizes crossing the urban/rural land divide (World Bank 2005). In the second step, the local government prepares the land for industrial, commercial, and housing development by investing in infrastructure (water, electricity, transportation, and leveling of the land). In the last step, the government leases

the land to nonagricultural investors, mostly through one-on-one negotiations and sometimes through open auctions.

The fiscal and tax reform of 1994 reshaped local governments' revenue incentives (Tao et al. 2011). Between the early 1980s and 1994, local governments collected nearly all taxes from local industries. The tax-sharing policy of 1994 drastically reduced the amount of taxes on local industrial production by 50–65%, creating upward pressure to establish more local industries in order to meet the local governments' revenue needs. Local governments no longer just lease land at a price for short-term profits. Instead, the incentive is to generate long-running streams of revenues through taxing industrial production, commercial activities, and housing rents. As a result, local governments are engaged in a “race-to-the-bottom” competition to attract foreign investors, offering long-term low rent to foreign investors for the use of industrial parks and development zones. These offers are particularly attractive to foreign investors, because land and labor can be obtained at prices lower than in the city proper and the infrastructures are readily available. The inflowing foreign capital, technology, and information, coupled with cheap labor, bring about high production, upon which the local government can collect tax revenues.

The race-to-the-bottom competition inevitably allocates new industrial parks and development zones to rural areas for both land availability and lower leasing compensation, facilitating speedy peri-urbanization (Lin 2006). Land leasing for nonfarm purposes, for example, expanded the urban space by 50% during the 1998–2005 period (China Statistical Yearbook 2006). Urban space expansion is not limited to the area expansion of large cities. During the same period, the average number of industrial parks or development zones per county was two, with greater concentration in coastal provinces. In addition, 2,586 industrial parks and development zones at the city, county, and township levels were established, and by 2006 the figure jumped to 6,015 (Zhai and Xiang 2007). In this way, local governments became entrepreneurial, acting as both decision-makers and investors directly involved in the development of peri-urban areas.

At the beginning of this peri-urbanization process, peri-urban areas are villages and small towns, because they do not meet the basic criterion of the prevalence of nonagricultural activities to be designated as a city above the county administrative level. As traditionally rural migrants move out of their counties for nonfarm jobs, they usually do not move to rural areas and small towns. Only when the outmigration expectation is high and when the migrant network size is large can rural migrants quickly know about and respond to employment opportunities in newly built industrial parks, development zones, and other economic entities outside of cities. We now turn to discussing whether these migration conditions exist.

Cumulative Causation of Rural Migration

Contemporary internal migration from rural China started in the early 1980s and has been growing fast since the mid 1990s. Migratory behaviors observed in the 1996–2000 period exhibited a migration boost (Liang and Ma 2004). Theories about migration in the initial stage, such as the gravity model of migration and the push/pull model of migration, provide

only partial explanations. Additional factors from the migratory course itself, conceptualized as the cumulative causation of migration, can independently lead to a greater probability of subsequent migration (Massey et al. 1993).

The gravity model of migration (Greenwood 1975) is a metaphor of Newton's gravity law. Migration can be described in terms of bodies (origin and destination), force (migration movement), mass ("push" factors in the origin and "pull" factors in the destination), and distance (between origin and destination). According to this model, stronger pushes and pulls and a closer distance lead to greater migratory movement from the origin to the destination. The push/pull factors of migration, originated in Ravenstein (1885), are useful terms that can be modernized with elements from contemporary migration theories, including wage differentials between origin and destination and the probability of employment at the destination from neoclassical macroeconomic and microeconomic theories (Lewis 1954; Todaro 1976; Sjaastad 1962; Borjas 1990) and diversification of risks to household income in new economics of migration (Stark and Bloom 1985; Stark 1991). A large body of empirical research on China's internal migration has examined various push and pull factors; relatively less attention has been paid to characteristics of rural migration and migrant networks (but see Zhao 2003 and Bao et al. 2009), especially in explaining individuals' outmigration and destination decisions.

The cumulative causation of migration explains why once it begins, a migration flow continues to grow (Massey et al. 1993). Two rationales behind cumulative causation are the expectation of outmigration and the embedded resources of migrant networks. First, migration products, such as remittances and urban lifestyles, create relative deprivation, which sustains pressure on outmigration. As more and more people out-migrate, migration becomes ingrained into the community's behavioral repertoire and values associated with migration become part of the community's values, creating a strong expectation for village youth coming of age to follow in predecessors' footsteps. Second, migrant networks are interpersonal ties that connect current migrants in destinations with potential migrants in the origin through ties of kinship, friendship, and shared community origin. Migrant networks lower the costs and risks of movement and increase the expected net returns to migration. Unlike pioneer migrants who have no social ties to draw upon, later migrants possess social capital generated by migrant networks. From the standpoint of social capital (Granovetter 1985), network connections provide access to embedded resources, such as valuable information about destination employment opportunities and an easy reach of network hiring. Research has supported the importance of both access and mobilization of embedded resources contingent on the extensity of social ties in status attainment (Lin et al. 1981; Lin 1999). Perhaps the most relevant is a series of work by Bian and colleagues on personal networks in China. For example, in Bian (1997), in contrast to the "strength-of-weak-ties" in market economies (Granovetter 1973, 1974), personal networks in China are used to influence authorities who favor their contacts in job assignments and these networks are characterized by trust and obligation. Personal relations in social networks are known as "guangxi" that govern job searching in China (Bian and Ang 1997). Because most rural migrants have few economic resources, guangxi in migrant networks has relatively greater importance. Cumulative causation starts from the moment when the number of migrants reaches a critical threshold. It then goes through an iterative process of renewing relative

deprivation, reducing the costs and risks of subsequent migratory movement, increasing the probability of subsequent migration, and further expanding the networks. These iterations become self-perpetuating, in that each migratory act adds to the networks that sustain the next migratory act.

Rural China provides rich soil to further nurture social networks and the cumulative causation of migration. Despite being dormant in the 30 years prior to the 1978 economic reform, loyalty to larger kinship has persisted, serving as the social roots for economic development in the reform era (Whyte 1995, 1996; Peng 2004, 2010). Obligations to help network members in economic, electoral, and social affairs are enforced by the renewed and further developed kinship and lineage through reconstruction of ancestry halls, genealogy compiling, and redecoration of burial sites (Wang 1991; Qian 1994).

Of the reasons given to account for why economic activities of immigrants to the United States are embedded in social networks (Portes and Sensenbrenner 1993), reciprocity transactions and enforceable trust are particularly useful in explaining the self-perpetuation of rural outmigration in China. In reciprocity transactions, according to Portes and Sensenbrenner, individuals who did good deeds to others can expect others' return of favor. By enforceable trust, the authors mean that individuals subordinate their present desires and short-term goals to the group's long-term interests, which can be positively sanctioned by awarding individuals of good standing and negatively sanctioned by punishing individuals of poor standing. Peng (2004) further develops these ideas to explain why China's kinship facilitates entrepreneurship in the reform era, emphasizing generalized reciprocity, enforceable trust, and external bridging ties. As Peng (2004) put it, reciprocity is embedded in history, engrained in the family name, and cemented through multiple generations living together. Trust is enforced by kinship rituals and activities, such as ancestral worships and holiday celebrations. In addition, fears of tarnishing the family name, which would affect each individual with the same family name, motivate individuals to fulfill their future obligations.

Migrant networks also provide external bridging ties that bring in market information and entrepreneurial opportunities (Burt 1992). In cases where job seekers and their ultimate helpers are not directly connected, the bridging intermediaries are strongly or moderately tied with the helper and the helped (Bian and Ang 1997). Although most new migrants are low skilled, experienced labor migrants may have climbed up to low/medium managerial jobs and have ties with upper managers who are not migrants. Others may be engaged in small businesses and have ties with government agents. These external bridging ties connect the close-knit kinship ties to the outside world, through which valuable information on employment opportunities travels and the job seekers are favored.

While migrant networks are derived from kinship originating from a village or a cluster of villages, can migrant networks be extended to be based on the larger area of the province of origin? Interprovincial migrants from the same origin province often cluster in destinations, and urban residents often associate them with their origin province. This is analogous to ethnic communities of international migrants in a destination country. Thus, for interprovincial migrants, migrant stock from the same origin province in a specific

destination province captures the variation in network resources available in different destination provinces.

Cumulative causation is a dynamic theory describing a self-sustaining diffusion process that generates implications different from those of push/pull analyses. In particular, the push and pull factors are progressively overshadowed by the falling costs and risks of migratory acts resulting from growing migrant networks. Thus, the relative size of outmigrants from an origin exerts an independent effect on the probability of subsequent outmigration from that origin, and the size of same-origin migration in a destination increases the probability that migrants will choose to settle in that destination. Cumulative causation has been tested using either an origin-related or destination-related measure in several studies on China.

Emigration prevalence of the origin village was used to explain Chinese emigration from a coastal province to the United States (Liang et al. 2008). For China's internal migration, the number of early migrants from the village was found to have a positive, significant effect on subsequent migration (Zhao 2003). The migration size of the destination province was found to be associated with aggregate interprovincial migration (Bao et al. 2007). However, the literature has yet to conceptualize cumulative causation as both the growing expectation for outmigration from the origin and the expanding migration networks in the destination when determining rural individuals' decision regarding outmigration and settlement.

Empirical Implications

The above discussion lays out a framework that relates rural migration to FDI, entrepreneurial local governments, and peri-urbanization in China. Based on this framework, we draw empirical implications for the current study.

First, as internal migration from rural areas has passed the initial stage, cumulative causation of migration suggests that a large relative size of previous outmigration from an origin province, measured separately for within-province vs. beyond-province destinations, increases the probability of subsequent outmigration to the corresponding within or beyond destinations. At the same time, a larger origin-specific migrant network size in a destination province increases the probability of a migrant choosing this province as the destination. In addition, we expect that these effects derived from the cumulative causation of migration are similar for city, town, and rural destinations, as peri-urbanization is taking root in the deepened process of globalization.

Second, the empirical implication from the theories on globalization, international capital flows, and local government finance incentives is that FDI has a positive effect on both city and noncity destinations. That is, if FDI does not have an effect on the choice of noncity destination, the theory is not substantiated. The relative strength of FDI on city vs. noncity destination, however, cannot be determined *a priori* given that various provinces are at different stages of the globalization process.

Third, the effects of characteristics of the migration course and FDI in destination provinces are expected to be independent of conventional push and pull factors. Migration course variables and FDI in destination province may overshadow conventional push and pull factors as the migration course progresses.

Data and Methods

Operationalize Peri-Urban Areas

Initial peri-urban areas are rural areas and small towns between cities that are within some particular distance. The China 2000 census classifies the residence place in three categories –the city type includes any urban areas at or above the county administration, the town type includes small towns and townships under the county administration, and the rural type includes all clusters of villages (Xiang). Our task is to operationalize peri-urban such that we can identify which rural labor migrants go to peri-urban destinations. Although city and town residence is often used to define the urban population (Chan 1994; Zhang and Wu 2010), peri-urban is a geographic term. It seems reasonable to operationalize peri-urban as the town and rural categories. This decision is further strengthened by the changing definition of “urban” in China. Since 1983 provincial governments have relaxed the criteria for designating towns (Xu et al. 1985; Lee 1989). As a result, the number of designated towns rose rapidly, for example, from 2,781 in 1983 to about 9,000 in 1987 (Chan 1994). Similarly, many counties have been reclassified as cities since 1983. According to some scholars, the official urban administrative areas, including cities and towns, are unusable because of the inflation resulting from the many newly designated county-level cities and towns (Zhou 1989). Thus the changing definition of urban suggests that our operationalization may underestimate rural labor migrants in peri-urban destinations.

At the same time, residence place is not necessarily the workplace. Since peri-urbanization stresses industrial and other nonfarm work, workplace rather than residence place should be used. Although there is no information on the city/town/rural categories of workplace, nor do we have information to determine the proportion of nonfarm workers who work and live in the same city, town, or rural place, villages of disproportionately high nonfarm activities are often home to the migrant workers who work in the informal economy of large cities but cannot afford the high rents there. These migrant workers who work in large cities but live in villages or small towns may be then misclassified as working in peri-urban destinations. Overall, the two potential errors go in opposite directions, reducing the total error size.

Data

We draw data from the Long-Form sample of the China 2000 Census. The long-form survey was conducted with a 10% random sample of households in the 2000 Census on November 1, 2000. Available micro-data are from a 0.95% random sample of the Long-Form households, yielding 1,180,112 individuals, and thus representing 0.095% (roughly 1/1000) of the total population. Key information on individuals for this paper includes the province and the city/town/rural type of the current residence place, household registration (hukou) status (agricultural vs. non-agricultural), person-hukou unity or separation (whether registered in the residence place, and if not, whether it was within or beyond six months and whether the hukou was registered in a different place within the county, inter-county within the province, or outside the province), the reason of migration for those who migrated during the 1996–2000 period, current occupation, and a set of demographic and human-capital characteristics.

The study population comprises of all individuals of rural hukou, aged 16–64, who were nonfarm rural migrants and farm or nonfarm individuals who never moved. The importance of hukou institution has been intensively studied, from its role in maintaining a large pool of low-wage labor in the capitalist global production chains (Wu 2009), the formation of a second class (Chan 1994), the differentiation of citizenship rights between urban and rural hukou holders (Wu and Treiman 2004), to blocking intergenerational mobility (Wu and Treiman 2007). Large-scale rural migration has exacerbated these problems. A better understanding of diverse destinations of rural migrants will add important knowledge to the literature on hukou.

Classification Scheme

Based on our interest in rural migration, we develop a classification scheme to facilitate describing and analyzing patterns. The first classification rule is by the current agricultural vs. non-agricultural hukou status that defines the two subpopulations. Within each subpopulation, the second classification rule distinguishes between the current hukou registration place and the current residence place, where place refers to the smallest administrative unit in the hukou system: Xiang in rural areas, which consists of a cluster of villages, and Jiedao in urban areas, which consists of a number of urban building blocks. The “hukou province” then indicates the province where one’s hukou registration place is located, in comparison to the “residence province”, where one’s residence place is located. For people who never have moved within provinces, their hukou province is the same as their residence province. For people who have moved across provinces without being able to transfer their hukou, their hukou province differs from their residence province. The third classification rule is by area types. The China 2000 Census provides three area types that are determined by China’s administrative division of geographic areas in 2000. Because China’s administration division system has undergone rapid changes since 1982, the China State Department ordered a temporary freeze of changes in the administrative division in July 2000 for conducting the 2000 Census in November 2000. Thus the three area types identified by the 2000 Census reflect up-to-date information as of November 2000.

This study focuses on the current agricultural-hukou subpopulation. Using the three classification rules, we divide this subpopulation into 10 groups. The first six groups refer to rural migrants without transferring their hukou to the residence place, with the first three for city/town/rural interprovincial destinations and the next three for city/town/rural intra-provincial destinations. The 7th group includes nonmigrants who have been living in the hukou registration place since birth. The 8th group comprises of those who moved to anywhere with their hukou. In the 9th group are those who have never moved but changed their residence from the rural type to city/town types, given the expansion of urban areas. Finally, the 10th group is for people whose hukou place is undetermined. In the statistical analysis, we restrict the study population to the labor force (defined as aged 16–64 and not enrolled in school) and labor force engaged in nonfarm work, where nonfarm is determined by the current occupation in 2000.

All post-1995 migrants were asked a question about the purpose of their migration. Our interprovincial migrants responded overwhelmingly that they migrated for industrial or

commercial work (87% of all labor force and 95% of nonfarm labor force). To maintain our simple classification scheme, we do not introduce this variable as another classification rule.

Measurement

Our dependent variables measure the decisions on outmigration and destination, respectively. A 5-category variable distinguishes among interprovincial migration to city vs. noncity destinations, intraprovincial migration to city vs. noncity destinations, and the not-yet-moved. Among those interprovincial migrants, we expand the data to the person potential-province form (i.e., each migrant has 29 records representing the 29 potential destination provinces, excluding their own hukou province¹). We measure their destination decision using a dichotomous variable, with the actual destination province coded as 1 and the rest of the provinces coded as 0.

Our key explanatory variables capture FDI and migrant networks for their proposed role in rural migration flows into peri-urban noncity areas, which are made as sites of labor demands by local government under the policy environment of land leasing and local finance. FDI provides outside capital for industrial, commercial, and housing development, which is increasingly dispersing to newly opened industrial parks and economic and technological development zones. Our measure of FDI is the percentage of total assets and infrastructure that is directly from foreign countries, Hong Kong, and Taiwan. Because FDI creates manufacturing job opportunities, FDI has stimulated rapid economic growth measured by GDP. As discussed in the background section the basic causal direction goes from FDI to GDP. Therefore in order to estimate the effect of FDI, we do not include GDP, which is substantially affected by FDI.

In Eastern and Central provinces, the 1996–2000 period saw a post-initial stage of rural migration. From the cumulative causation of migration theory we develop three measures. For outmigration decisions, we construct two variables to measure the relative size of previous outmigrants to within-province destinations vs. to beyond-province destinations as a percentage of the current origin agricultural-hukou labor force. Note that these two measures underestimate the actual migrant network size, as return migrants cannot be counted because of a lack of migration history information, while return migration was common for marriage or old-age reasons. For the destination-decision analysis, we use the number of migrants (in 100,000) from the same hukou province in each potential destination province as the origin-based, province-specific migrant network size. Because the destination-decision model accounts for variation in networks across potential destination provinces within individuals, the number of migrants is as if normalized by the labor force of the hukou province, a constant within individuals.

The migrant network factors must be measured before the outmigration decision and the destination decision are made. We create the cumulative causation of migrant variables in 1995 by disregarding those who migrated after 1995. In doing so, we adjust the age range to be 21–69 in 2000 to indicate the labor-force population aged 16–64 in 1995. These variables

¹Because Chongqing was established in 1997 as a direct-controlled municipality, we combine Sichuan and Chongqing in the years of 1997–1999, yielding a total of 30 provinces and direct-controlled municipalities

are used for our multivariate analysis for post-1995 migrants, so as to maintain the temporal order with the explanatory variables preceding the dependent variables.

We also measure the push and pull factors in 1995, drawing data from the Chinese Statistics Yearbooks 1996. A set of push factors includes land scarcity, which leads to rural labor surplus, measured with per-capita mu (1/15 hectare). If manufacturing employment can absorb the rural surplus labor in the same province, the push is weaker. We measure this condition with the percentage of the labor force employed in manufacturing. Important to rural migrants is the earning goal. The living-standard disparity between urban and rural areas has widened significantly since the reform began (Knight and Song, 1999). The low cash income in most rural areas greatly limits production expansions, investment in children's education, and housing and living standard improvement. We measure this cash income with per-capita annual income (¥1,000) for the agricultural population living in a province. Thus lower levels of agricultural earnings (measured with annual per-capita income) in the hukou province are likely to push migrants out to seek better options. If nonfarm earnings in the hukou province are high, rural migrants may just move within the hukou province.

While the push factors shape decisions of outmigration from the hukou province, the pull factors are from all potential destination provinces excluding the hukou province. Upon deciding to outmigrate, a person must choose one of the all-but-origin provinces to settle. Given rural migrants' income goal, we highlight nonfarm earnings. Although arable land is a critical push factor, it is less relevant on the pulling side because the majority of outmigrants seek nonfarm work.

The above measures, FDI, previous outmigration from the origin, the origin-based, province-specific migrant network size, and push/pull factors, are all at provincial levels, and are distinct for the hukou province and the residence province. A set of control variable describes individual characteristics. Male workers are traditional pioneer migrants in demand for construction and manual work, while female workers respond to demands from export-oriented, labor-intensive industries, such as toys, garments, and electronics, and the service sector, such as restaurants and hotels. Younger people find it easier to move farther away, as do single people. High-school education or higher is in greater demand by modern industries. Our set of individual characteristics includes gender, age, marital status, and educational level.

Analytic Strategies

The multivariate analysis is performed in two steps. The first step examines the outmigration decision of the 1996–2000 rural labor migrants distinguishing among intra- or inter-provincial and city or noncity destination, using not-yet-moved individuals as the reference. The analytic sample includes all rural migrants who migrated during the 1996–2000 period, who have a current agricultural hukou status and a nonfarm job in 2000 ($n=38,158$), and a stratified, randomly selected subsample from the not-yet-moved counterparts ($n=42,018$); both migrants and nonmigrants were aged 16–64 in 2000. Two multinomial logistic regression models are estimated to compare the relative importance of FDI, migratory course variables, push factors, and individual characteristics.

The second task examines the province-destination decision among interprovincial migrants ($n=22,265$) to examine whether the proposed provincial characteristics such as FDI and migrant networks attract interprovincial migrants, using conditional logit models (Maddala 1983). Conditional logit modeling differs from multinomial logit modeling in its focus on choice characteristics rather than individual characteristics. For any rural persons who have decided to migrate out of the hukou province, he/she must decide which province to move. Each province, except for the individual's own hukou province, is treated as a potential destination choice. The hypothesized factors, the flow of FDI, the number of migrants from the same hukou province, and nonfarm earnings differ across provinces but do not vary across individuals. By comparing these variables across potential destinations individuals determine which province will best serve his/her migration purpose. In this decision making within individuals, individual characteristics are constant and our model assumes that destination characteristics have the same effects for all interprovincial migrants. The data structure for the conditional logit model is person-province records by replicating 29 records for each interprovincial migrant and attaching province-specific characteristic to each of the 29 records. The total number of person-province records is $22,265 \times 29 = 645,685$. A dummy variable indicating the actual destination province forms the dependent variable for the destination decision analysis. To examine whether destination FDI, immigrant network size, and nonfarm earnings have same impacts on the city vs. noncity destination of the chosen province, we perform separate analyses for the subsamples of city and noncity goers and compare the estimates.

Results

Before embarking on results for rural labor migrants, we use Appendix Table 1 to show a complete picture of the frequency distribution of the agricultural-hukou population according to the 10-group classification. As shown in the distribution for the total agricultural-hukou population of all ages (Column 1), interprovincial migrants account for 3.4%, among whom about one half moved to cities and the other half to towns and villages. The percentage for intra-provincial migrants is larger (5.1%), and the distribution of city vs. town/rural destination is also even. The outmigrant percentage is 8.5% for the total agricultural-hukou population in 2000. When only labor force is considered, the outmigrant percentage rises to 10.5%, and the distribution between city and noncity destination types remains similar. Further restricting the sample to nonfarm workers with an agricultural hukou, the last column shows that 39% of them moved away from their hukou county. The noncity destination type accounts for nearly one half of interprovincial migrants engaged in nonfarm work.

Distribution of Rural Migrants

Table 1 shows the percentage distribution of interprovincial and intraprovincial rural labor migration, distinguishing among three area types of destinations. Among rural migrants who moved in any year, the percentage for interprovincial migration is 45.5% for those 16–64 and 52.6% for those 16–64 and engaged in nonfarm work. The percentages for moving to noncities are nearly one half of those for interprovincial migration. The corresponding percentage is lower for intraprovincial migration. When examining those who migrated

during the 1996–2000 period, interprovincial migration accounts for 53.4% for those aged 16–64 and 54.2% for those aged 16–64 and engaged in nonfarm work, while the noncity destination share remains similar for recent interprovincial migrants as a whole.

The major provinces with intraprovincial rural migration and the major sending and receiving provinces for all interprovincial rural migration counted in 2000 are presented in Appendix Table 2. The top five intraprovincial-migration provinces are Guangdong, Sichuan, Jiangsu, Zhejiang, and Shandong. The top five interprovincial migration sending provinces are Sichuan, Hunan, Anhui, Jiangxi, and Henan and the top five receiving destinations are Guangdong, Zhejiang, Shanghai, Jiangsu, and Beijing.

For the purpose of this paper, we need to closely examine provincial variations in the city vs. noncity destination types of rural labor migrants who migrated during the 1996–2000 period and work on nonfarm jobs, shown in Table 2. Guangdong retains its two number-1 positions for intraprovincial migration and receiving interprovincial-migrants for either city or noncity destinations. Sichuan also retains its second position for intraprovincial migration and the first position of sending interprovincial migrants to either type of destination. Other provinces have their positions shifted. In particular, Guangdong and Zhejiang, which are sites of peri-urbanization case studies and local finance policy studies, exhibit a trend of receiving a larger number of migrants in their noncity destinations than city destinations. At the same time, Shanghai is no longer in the top five for noncity destinations and is replaced by Fujian. This pattern suggests that peri-urbanization may be concentrated in coastal provinces with an already higher level of urbanization, a higher level of previous FDI, and cumulated experiences that support the new industrial parks and economic development districts in rural areas between highly developed cities.

Next we examine the economic and social conditions in the origin (hukou) province for those who have not yet moved, those who have moved within the province to city or town/rural (noncity) destinations, and those who have moved cross-province to city or noncity destinations (see Table 3). FDI is expected to create nonfarm jobs, and so a higher level of FDI in the origin province should be associated with intraprovincial outmigration, to city or noncity destinations to which FDI flows. As shown in Table 3, FDI, measured in percentage of fixed assets and infrastructure, is higher (10.45 and 9.85 for city and noncity, respectively) among intraprovincial outmigration as compared with nonmigration (7.95). For the same reason, FDI is low (7.25 and 6.69) among interprovincial migrants.

An important measure of the origin province's social condition is the previous rural outmigration percentage, because it implies the degree to which people are expected to follow predecessors. Here we distinguish between intra- and inter-provincial outmigration because the latter bears greater costs and risks. While the intraprovincial outmigration is 2.22% for the not-yet-moved, this percentage is higher (2.88 and 2.93) among intraprovincial migrants. The difference in the interprovincial migration rate is much higher among interprovincial migrants (1.07 and 1.12) than the not-yet-moved (0.81).

The traditional push factors of the origin province continue to push the labor force out to other provinces. Less arable land, a lower manufacturing-employment rate, and lower

nonfarm annual earnings are more typical for interprovincial migrants than others. Looking closer at the origin conditions among interprovincial migrants to city vs. noncity destinations, most origin province variables do not differ much, with the exception of manufacturing employment opportunities.

The bottom panel of Table 3 describes destination-province variables. The most remarkable pattern is the close resemblance in FDI, migrant network size, and nonfarm earnings between city and noncity destinations. This pattern suggests that initial peri-urbanization in noncity areas attracts rural laborers in the same manner as urbanization does in cities.

Table 4 shows whether demographic characteristics differ among different types of migrants as well as nonmigrants. As expected, migrants are more likely to be younger, single, and higher educated, especially interprovincial migrants. The gender distribution shows that there were more men in the not-yet-moved category, fewer men moved within provinces, and men and women similarly moved across provinces.

Multivariate Patterns

Our first analytic task models the outmigration decision, considering whether the move is within or across provinces and whether the destination is a city or noncity area. The reference group consists of individuals who have not yet made any trips to another county for work. For this 5-category dependent variable, we use a multinomial logit model to estimate the effects of our key explanatory variables, including FDI and previous outmigration percentage of the origin province, in addition to traditional push factors of the origin province and individual demographic characteristics. Model 1 specifies push factors and demographic characteristics, and Model 2 adds our key explanatory variables. Table 5 shows the coefficients (log odds) for each of the four migration options against nonmigration.

Results regarding our key explanatory variables suggest that FDI in the origin province does not help retain rural labor, while cumulative causation of migration, measured by previous outmigration percentage, is responsible for rural labor outmigration. In particular, previous outmigration generates the expectation for the same specific type, as previous intraprovincial migration has no significant effect on current interprovincial migration and vice versa.

These key results are obtained while controlling for push factors and demographic characteristics. The Model 1 estimates confirm that worse economic conditions, especially land scarcity and lower non-farm earnings, are significant pushes of interprovincial migration. These effects remain similar after adding the previous outmigration percentage, suggesting that push factors and the outmigration percentage are independent of each other. The effects of demographic characteristics are as expected and remain similar for the two models. One exception is the gender effect. From Model 1, men are less likely to migrate than women, but this effect disappears in Model 2. The expectation of outmigration applies to both genders and eliminates the gender difference. An impressive pattern from Table 5 is the closeness in estimates for city vs. noncity destinations. The specific type of previous

outmigration percentage, land scarcity, and nonfarm earnings similarly influence the decision to move to city or noncity areas in another province.

Table 5 also shows that more rural women than men are likely intraprovincial migrants as compared to the choice of not moving. Our examining of migration reasons reveals that 23% of intraprovincial migrant women who moved to cities reported marriage or family reunification as their migration reasons; the corresponding percentage for those settling in noncity areas was 33%. In Contrast, only 11% and 8.5% rural interprovincial migrant women settling in cities vs. noncities were for marriage and family reunification purposes. Rural women may marry a man (or join husband) who lives in another county. Not all these women are eligible or willing to transfer their hukou to the residence. Thus, these patterns offer an explanation for the negative coefficient for gender in intraprovincial migration.

Our second analytic task is to model which province to choose as the destination. We ask how migrants decide on which province to settle in, separately, for those moved to a city vs. a noncity area. This decision involves choosing one out of the 29 province-level units (excluding the origin province) by comparing the attractiveness of these provinces. We are interested in the attractiveness of FDI and the existing origin-specific migrant network size in the potential receiving provinces, in addition to a traditional pull factor, measured by nonfarm earnings. Two models are specified. Model 1 includes only the pull factor, and Model 2 adds our two key explanatory variables. The estimates (log odds) from the conditional logit model are shown in Table 6.

The results show the significant effects of FDI in the receiving province and their similar attractiveness for city and noncity destinations. Unlike the FDI in the origin province that fails to retain rural labor (from Table 5), a 1% increase in FDI in a receiving province is associated with an increase of 3% ($e^{0.031} - 1$) in the odds of choosing this province over others among both city and noncity goers. While FDI continues to flow into cities, it also disperses to peri-urban areas where the local government has invested in infrastructure for industrial and commercial development. The similar strength of the FDI effect for city and noncity destinations suggests that FDI diffusion to peri-urban areas is wide-spread and substantial and has successfully attracted large inflows of rural migrants to meet the labor demand. Cumulative causation of rural migration continues to strongly influence the choice of destination through migrant networks in the destination. An increase of 100,000 migrants in the network is associated with an increase of 284% ($e^{1.346} - 1$) in the odds of choosing this province over others for city goers, and the increase is 309% ($e^{1.408} - 1$) for noncity goers. The stronger effect of migrant network size for noncity destinations suggests that information and network hiring are more efficient in the situation of concentrated job opportunities in industrial parks and economic zones than in cities. Another important result is the significant decline of the economic pull effect of nonfarm earnings after FDI and the cumulative causation of migration are added to the model.

Conclusions

This paper departs from the large body of literature on China's rural migration in two fronts. First, we suggest that peri-urbanization is an important part of the story of the more general

urbanization, and thus it must be connected to the rural migration that feeds its high demand for cheap labor. Peri-urbanization, commonly observed in Asian developing countries and also demonstrated in studies of Chinese cases, is driven by globalization, flows of foreign capital, and local government policies. This paper uses a demographic approach to provide evidence for the connection between rural migration and peri-urbanization. Second, the gravity model and push/pull perspective, which have dominated research on rural migration in China, usually ignore that China's rural migration in major sending provinces has entered a perpetual stage where forces other than pushes and pulls sustain the continuous outflows. We use the cumulative causation theory to conceptualize social expectations of outmigration and social resources from migrant networks in destinations.

Our descriptive analysis based on the China 2000 Census reveals a less-known fact that town and rural destinations drew nearly a half of all interprovincial rural labor migrants. Top receiving provinces of noncity goers, such as Guangdong and Zhejiang, are well known for their local governments' entrepreneurship in developing new industrial parks and development zones and high volumes of FDI flows. A very clear definition of the hukou province (origin province) vs. the residence province (destination province) enables us to show that FDI is much higher in receiving provinces than in sending provinces and that its attractiveness is remarkably similarly high for city and noncity settlers. To measure migrant networks, we take advantage of the census data and distinguish between expectation of outmigration and social resources embedded in migrant networks. These measures differ among different types of migrants.

Four major findings are drawn from the multivariate analysis of the decision on types of intra- and inter-provincial outmigration and the decision on destination choice among interprovincial migrants. First, as suggested by the cumulative migration theory, greater previous outmigration significantly increases current outmigration, a process appears to be independent of push factors. Second, FDI attracts rural labor migrants from other provinces to peri-urban areas as it does to city destinations. Third, migrant networks play an important role in facilitating rural labor migration. Fourth, the importance of wage differentials declines in gravitating rural labor migrants to peri-urban areas after FDI and networks are taken into account.

These findings provide tentative evidence that rural labor migration is indispensable in the initial stage of peri-urbanization. Before a peri-urban area is lifted to an administrative urban level, significant flows of rural migrants have moved there and taken nonfarm jobs. Infused with the flows of FDI and the local government's entrepreneurship, rural migration has created a favorable environment for peri-urbanization.

This study provides significant implications for policy makers. It points in the direction toward accurately counting rural outmigrants and advances our understanding of the social forces driving rural outmigration to city and noncity destinations. Our findings raise important questions about the conventional wisdom that tends to view urbanization as city-based and calls attention to initial peri-urbanization. These improvements will ultimately enhance rural migrant workers' economic returns and reduce social disparities between rural migrant workers and urban workers.

Appendix

Appendix Table 1

Frequency Distribution of Agricultural-Hukou Population in 2000: China 2000 Census

Migration Status	All Ages	Aged 16–64	Aged 16–64 nonfarm
Inter-Provincial	(3.4%)	(4.8%)	(20.5%)
1. City destination	15,431	13,726	11,844
2. Town destination	6,337	5,816	5,228
3. Rural destination	8,144	7,155	5,144
Intra-Provincial	(5.1%)	(5.7%)	(18.5%)
4. City destination	22,531	16,742	12,004
5. Town destination	11,516	7,458	4,715
6. Rural destination	10,934	7,759	3,255
7. Not yet moved, current rural residence	601,196	353,026	37,229
8. Moved with HK, any destination	109,914	91,712	10,238
9. Not yet moved, current urban residence	96,914	57,643	18,455
10. Undetermined	169	157	32
Total	883,086	561,194	108,144

Data source: China 2000 Census, the long-form sample representing 0.095% of the population.

Note: Labor force is defined as aged 16 – 64 and currently not enrolled in school. Nonfarm work is defined by current occupation. HK stands for household registration (*hukou*). The numbers in the table can be taken as roughly in 1,000 persons.

Appendix Table 2

Rural Labor Migrants with Agricultural Hukou: Major Sending and Receiving Provinces of Interprovincial Migration and Major Provinces of Intraprovincial Migration, China 2000 Census

Code	Province	Intra-provincial	Inter-provincial		
			Sending	Receiving	Top Source
11	Beijing			1,490	[13,41]
12	Tianjing				
13	Hebei				
14	Shanxi				
15	Inner Mongolia	1,244			
21	Liaoning	1,131			
22	Jilin				
23	Heilongjiang	1,157			
31	Shanghai			1,936	[34,32,33]
32	Jiangsu	2,509		1,539	[33,34,51]
33	Zhejiang	2,305		2,540	[36,34,51]
34	Anhui		2,739		
35	Fujian	1,521		1,158	[36,51]
36	Jiangxi		2,343		
37	Shandong	1,986			

Code	Province	Intra-provincial	Inter-provincial		
			Sending	Receiving	Top Source
41	Henan		2,104		
42	Hubei	1,581	1,907		
43	Hunan		3,069		
44	Guangdong	4,172		11,244	[51,43,45,36,42]
45	Guangxi	1,143	1,823		
46	Hainan				
51	Sichuan	2,880	5,307		
52	Guizhou		1,075		
53	Yunnan	1,096			
54	Tibet				
61	Shaanxi				
62	Gansu				
63	Qinghai				
64	Ningxia				
65	Xinjiang			1,156	[51]

Data source: China 2000 Census, the long-form sample representing 0.095% of the population.

Note: Counts and province code (in brackets) are presented. The numbers in the table can be taken as roughly in 1,000 persons.

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Table 1

Percentage Distribution of Rural Labor Migrants in 2000: China 2000 Census

Migration Status	Migrated in all Years		Migrated 1996–2000	
	Aged 16–64	Aged 16–64 non-farm	Aged 16–64	Aged 16–64 non-farm
Interprovincial	45.5	52.6	53.4	54.2
To city	23.4	28.1	27.3	28.6
To town	9.9	12.4	12.1	12.7
To rural area	12.2	12.2	14.0	12.9
Intraprovincial	54.5	47.4	46.6	45.8
To city	28.5	28.5	26.1	27.6
To town	12.7	11.2	9.9	10.4
To rural area	13.2	7.7	10.5	7.8

Data source: China 2000 Census, the long-form sample representing 0.95% of the population.

Notes: Labor force is defined as aged 16 – 64 and not enrolled in school. Nonfarm work is defined by current occupation.

Table 2

City vs. Noncity Destinations of 1996–2000 Rural Labor Migrants with Nonfarm Work: Top Five Provinces of Intraprovincial Migration and Top Five Sending and Receiving Provinces of Interprovincial Migration, China 2000 Census

Code	Province	Intraprovincial	Interprovincial		
			Sending	Receiving	Top Sources
City Destination					
11	Beijing			792	[13,41]
31	Shanghai			1,003	[34,32,33]
32	Jiangsu	608		493	[34]
33	Zhejiang	661		952	[34,36,51]
34	Anhui		1,222		
36	Jiangxi		989		
37	Shandong	720			
41	Henan		887		
43	Hunan		1,151		
44	Guangdong	1,438		4,268	[43,51,45,36]
51	Sichuan	901	1,794		
Noncity Destination					
11	Beijing			255	[13]
32	Jiangsu	386		487	[34,51]
33	Zhejiang	434		1,153	[36,51,34]
35	Fujian	374		528	[51,36]
36	Jiangxi		981		
42	Hubei		779		
41	Henan		770		
43	Hunan		1,373		
44	Guangdong	893		5,244	[51,43,45,42,36]
51	Sichuan	454	2,146		

Data source: China 2000 Census, the long-form sample representing 0.95% of the population.
Note: Counts and province code (in brackets) are presented. The numbers in the table can be taken as roughly in 1,000 persons.

Table 3
FDI, Migrant Network Size, and Push/Pull Factors of Origin and Destination Province in 1995

Variables	Not Yet Moved	Intraprovincial		Interprovincial	
		To City	To Noncity	To City	To Noncity
Hukou Province					
FDI (% of total assets)	7.95	10.45	9.85	7.25	6.69
Intraprovincial outmigration (%)	2.22	2.88	2.93	1.96	1.85
Interprovincial outmigration (%)	0.81	0.73	0.73	1.07	1.12
Arable land per capita (mu)	1.96	1.84	2.01	1.61	1.59
Manufacturing employment (%)	14.58	16.67	16.43	13.46	11.95
Nonfarm annual earnings (¥1,000)	5.05	5.63	5.59	4.84	4.71
Residence Province					
FDI (% of total investment)	—	—	—	15.42	15.69
Migrant network size (in 100,000)	—	—	—	0.91	1.09
Nonfarm annual earnings (¥1,000)	—	—	—	7.25	7.28

Notes: Province data are weighted by population. The migrant network size in destination province is measured by the number of rural migrant workers in a destination province who share the same origin province.

Table 4
Demographic Characteristics of Rural Labor Force by Migration Status: China 2000 Census

Variable	Not yet moved	Outmigration 1996–2000			
		Intraprovincial		Interprovincial	
		City	Noctly	City	Noctly
Male	0.588	0.481	0.476	0.553	0.502
Age					
16–24	0.181	0.360	0.340	0.418	0.463
25–34	0.280	0.374	0.377	0.410	0.399
35–44	0.227	0.153	0.158	0.120	0.102
45–54	0.196	0.075	0.074	0.042	0.029
55–64	0.116	0.038	0.052	0.010	0.008
Ever-married	0.808	0.656	0.706	0.565	0.505
Education					
< Primary	0.143	0.070	0.085	0.052	0.048
=Primary	0.361	0.189	0.221	0.173	0.209
< Senior high	0.443	0.593	0.574	0.646	0.649
>=Senior high	0.053	0.148	0.120	0.129	0.094

Data source: China 2000 Census, the long-form sample representing 0.95% of the population.
Notes: Labor force is defined as aged 16–64 and currently not enrolled in school. Migrants are those who moved 1996–2000 and work on nonfarm jobs.

Table 5

Estimates for Labor Outmigration Decision in 1996–2000: Intraprovincial vs. Interprovincial, City vs. Noncity against Nonmigration

Variables	Intraprovincial Outmigration		Interprovincial Outmigration	
	Model 1	Model 2	Model 1	Model 2
<u>To City</u>				
Hukou province variable				
FDI (%)	–	–0.016	–	–0.015
Intraprovincial outmigration (%)	–	0.582***	–	0.116
Interprovincial outmigration (%)	–	0.595	–	1.893***
Arable land per capita (mu)	–0.191	–0.543***	–0.674***	–0.652***
Manufacturing employment (%)	–0.003	–0.006	0.025	0.066**
Non-farm annual earnings (¥1,000)	0.082	–0.187	–1.131***	–0.925***
Individual-level variable				
Male	–0.254***	–0.221***	0.084	0.096
Age (ref. 16–24)				
25–34	0.188***	0.145**	0.381***	0.331***
35–44	–0.721***	–0.780***	–0.773***	–0.850***
45–54	–1.107***	–1.166***	–1.525***	–1.574***
55–64	–1.546***	–1.655***	–2.814***	–2.916***
Ever married	–0.010	0.013	–0.413***	–0.461***
=Primary	0.280	0.130	0.107	–0.013
< Senior high	1.002***	0.866***	0.842**	0.790***
>=Senior high	1.762***	1.683***	1.473***	1.490***
<u>To Noncity</u>				
Hukou province variable				
FDI (%)	–	–0.025	–	–0.024
Intraprovincial outmigration (%)	–	0.570***	–	0.303
Interprovincial outmigration (%)	–	0.623**	–	1.663***
Arable land per capita (mu)	–0.109	–0.467***	–0.683***	–0.771***
Manufacturing employment (%)	–0.007	–0.012	–0.027	0.006
Non-farm annual earnings (¥1,000)	0.126	–0.091	–1.477***	–1.307***
Individual-level variable				
Male	–0.222***	–0.189***	–0.099	–0.080
Age (ref. 16–24)				
25–34	0.000	–0.043	0.417***	0.359***
35–44	–0.914***	–0.972***	–0.795***	–0.887***
45–54	–1.390***	–1.445***	–1.826***	–1.900***

Variables	Intraprovincial Outmigration		Interprovincial Outmigration	
	Model 1	Model 2	Model 1	Model 2
55–64	–1.580***	–1.683***	–2.995***	–3.119***
Ever married	0.309**	0.330**	–0.673***	–0.711***
Education (ref. <primary)				
=Primary	0.272	0.135	0.410	0.275
< Senior high	0.833***	0.714***	0.954***	0.876***
>=Senior high	1.426***	1.365***	1.296***	1.289***

Notes: Coefficients (log odds) of multinomial logistic regression are presented.

*** significant at 0.001

** significant at 0.1

* significant at 0.05

Table 6

Conditional Logit Estimates for Destination Province Decision in 1996–2000: Interprovincial City and Noncity Goers

	Model 1	Model 2
<u>To City</u>		
Residence province variable		
FDI (%)	–	0.031***
Migrant network size (in 100,000)	–	1.346**
Non-farm annual earnings (¥1,000)	0.692***	0.415***
<u>To Noncity</u>		
Residence province variable		
FDI (%)	–	0.030***
Migrant network size (in 100,000)	–	1.408***
Non-farm annual earnings (¥1,000)	0.710***	0.402***

Notes: Coefficients (log odds) from conditional logit models are presented.

*** significant at 0.001

** significant at 0.01