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### Author

Sun, Mingjie

### Publication Date

2011-01-02

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UNIVERSITY OF CALIFORNIA

Los Angeles

Inter-provincial Permanent and Temporary Migration in China

A dissertation submitted in partial satisfaction of  
the requirements for the degree Doctor of Philosophy  
in Geography

By

Mingjie Sun

2011

The dissertation of Mingjie Sun is approved.

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Donald J. Treiman

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Michael E. Shin

---

William A.V. Clark

---

C. Cindy Fan, Committee Chair

University of California, Los Angeles

2011

*To mom and dad.*

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## **ACKNOWLEDGEMENTS**

First and foremost, I would like to express my deepest gratitude to my advisor, Professor C. Cindy Fan, who has consistently guided and supported me throughout my stay at UCLA. Cindy has walked me through every stage of developing this dissertation, from obtaining data to providing insightful ideas and suggestions, and to writing and turning part of the results into publication. She made me feel how lucky a student can be if she has a good advisor. I am very grateful for having had the opportunity to work with her for years.

Next, I would like to thank my other committee members, Professor William A.V. Clark, Professor Michael E. Shin, and Professor Donald J. Treiman, for their valuable comments and advices on improving this dissertation.

I also would like to thank Professor Huabo Wang, for his input in this dissertation. Without his support, this research would have not been possible.

I thank the University of California Labor and Employment Research Fund and the International Institute of UCLA for providing funding for this research.

I would like to give my special thanks to Mr. Kaisong Fu, Director of the Office of Migrant Management in Wuxi, as well as other people, who helped me a lot in the process of conducting the survey for this dissertation.

Last but not least, I would like to thank my parents for their unconditional love and support. Thank you for everything you have done for me all these years! I also would like to thank my husband for his encouragement and for giving me our angel Ethan.

## VITA

1998	B.S. in Geography Nanjing University Nanjing, China
2001	M.S. in Geography Nanjing University Nanjing, China
2001-2002	Urban Planner Jiangsu Institute of Urban Planning & Design Nanjing, China
2005-2011	Teaching/Research Assistant Department of Geography University of California, Los Angeles
2010	M.S. in Statistics University of California, Los Angeles

## PUBLICATIONS

Sun, Mingjie and C. Cindy Fan. 2011. China's permanent and temporary migrants: Differentials and changes, 1990-2000. *The Professional Geographers*, 63(1): 92-112.

Sun, Mingjie and C. Cindy Fan. 2008. Regional inequality in the Pan-Pearl River Delta region, in *The Pan-Pearl River Delta: An Emerging Regional Economy in Globalizing China*, edited by Y.M. Yeung and Jianfa Shen, Hong Kong: The Chinese University Press.

Fan, C. Cindy and Mingjie Sun. 2008. Regional Inequality in China, 1978-2006, *Eurasian Geography and Economics*, 49 (1): 1-20.

Zhang, Min, Aihua Shi, Mingjie Sun and Xiaofeng Yi. 2002. Zhujiang sanjiaozhou dachenshi waiwei liudong renkou juju yu fenbu-- yi shenzhenshi pinghuzhen weili (Concentration and distribution of floating population in the periphery of metropolitan area in the Pearl River Delta: A case study of Pinghu Town in Shenzhen), *City Planning Review*, 26(5): 63-65, 69 (in Chinese).

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## ABSTRACT OF THE DISSERTATION

### Inter-provincial Permanent and Temporary Migration in China

By

Mingjie Sun

Doctor of Philosophy in Geography

University of California, Los Angeles, 2011

Professor C. Cindy Fan, Chair

This dissertation focuses on the two-track migration system in transitional China, where both market forces and the state are prominently at work. More specifically, the main objective of this research is to document the differentials between permanent migration and temporary migration and their changes over time, to examine the factors that contribute to the changes, and to study temporary migrants' settlement intention. Also, I highlight two key processes that have shaped the two-track migration system over the last three decades – *hukou* reforms and maturation of migration streams.

The empirical analysis shows that between 1990 and 2000 the gaps between permanent migrants and temporary migrants did not narrow but in most aspects had

widened. There is little evidence that *hukou* reforms have lowered the barriers to urban citizenship. At the same time, the selectivity of temporary migrants has declined over time. A larger spectrum of population, including the less skilled and educated, has joined the temporary migration streams. The net result is a persistence of the two-track migration system, where permanent migrants increasingly assume the position of social and economic elites and temporary migrants the disadvantaged and disenfranchised.

Using the City of Wuxi as a case study, I show that *hukou* reforms alone are not sufficient to turn all temporary migrants into permanent migrants. But *hukou* status is a significant constraint that prevents temporary migrants from settling down in the city. Lack of the local *hukou* puts additional constraints in temporary migrants' lives in the city, such as job hunting, home purchase, social insurance and children's education. More inclusive *hukou* reforms would help improve migrants' living standards in the city and in turn increase their settlement intention.

The findings of the dissertation underscore the importance of addressing the role of policy for studying internal migration, especially in transitional economies that are undergoing structural transformation. The findings are also relevant for policymakers, especially those concerned with furthering *hukou* reforms.

# **Chapter 1**

## **Introduction**

### **1.1 Objectives of the study**

Social scientists from various disciplines have developed several branches of powerful theories and models on the processes and patterns of internal and international migration. For example, the neoclassical approach emphasizes the aggregate effects of regional differentials in economic development (Todaro 1969). By focusing on individual behavior, the human capital approach views migration as an investment in human capital (Sjaastad 1962). In this view, people migrate in the expectation of being better off (Clark, 1986). Network theory stresses the role of migrant networks in reducing the costs and risks of migration and increasing the expected net returns to migration (Yap 1977; Goodman 1981). Family strategy approach emphasizes the role of family and views migration as a family strategy to maximize household income and minimize risks by diversifying sources of income (Mincer 1978; Katz and Stark 1986; Lacus 1997). The segmented labor market approach focuses on the channeling of migrants to a low wage secondary sector (Piore 1979; Taubman and Wachter 1986). Most of these theoretical perspectives are based on the experiences of capitalist economies. In this dissertation, I examine the migration system in China – a socialist economy under transition where both

market mechanisms and the state are prominently at work. Specifically, migrants in China are increasingly responsive to market forces such as labor demand and wages, but their migration processes are still heavily affected by institutional controls such as the household registration (*hukou*) system (see Chapter 2 for a detailed discussion).

A unique feature of migration in China is its two-track system, one consisting of permanent migration and temporary migration (Chan 1994; Gu 1992; Yang 1994).

“Temporary migrants” refers to individuals whose place of residence differs from their place of *hukou* registration. Most rural-urban migrants are temporary migrants.

“Permanent migrants,” in contrast, refers to migrants who have changed their *hukou* registration to the place of residence. It is where individuals are registered, rather than the duration of stay, that defines them as permanent migrants or temporary migrants (Goldstein and Goldstein 1991). No matter how long temporary migrants have stayed in the destination, without a local *hukou* they are expected to go back to their origins eventually. A variety of terminologies have been used to describe this dichotomy – *hukou* versus non-*hukou* migrants, “plan” versus “non-plan” (or self-initiated) migrants, formal versus informal migrants, and de jure versus de facto migrants (Chan 1996; Chan et al. 1999; Fan 1999; Gu 1992; Li 1995; Yang 1994). Regardless of which terminologies are used, this two-track system is key to understanding internal migration in China (see also Fan 2008: 22; Sun and Fan 2011).



Studies have shown that the processes of permanent migration and temporary migration differ considerably. Permanent migrants are largely sponsored by the state and/or are more skilled and highly educated, while temporary migrants are mostly self-initiated, market-driven and are of lower socioeconomic statuses (e.g., Li 1997; Chan et al. 1999; Fan 2002a; Shen 2002; Wu and Treiman 2004). Temporary migrants do not enjoy the same institutional, economic and social statuses as permanent migrants and local residents. Although the literature has provided some general findings on permanent and temporary migration in China, little attention has been paid to the dynamics of this two-track migration system. Since the 1980s, especially since the 1990s, China has been under dramatic change and transformation, including the two-track migration system. In this dissertation, the empirical analysis focuses on the differentials between permanent migrants and temporary migrants and their changes over time. Using data on inter-provincial migration from the 1990 and 2000 censuses, I document the size, migration reasons, selectivity, and occupational attainment of permanent migrants and temporary migrants.

I also highlight two processes that have shaped the two-track migration system over the past three decades or so – *hukou* reforms and the maturation of migration streams. First, a variety of reforms have been implemented to offer eligible rural migrants opportunities to obtain urban *hukou*. It is not entirely clear if these reforms are simply

creaming off the best and the brightest of rural migrants, while ignoring altogether the poorer and less skilled migrants, or if they are making urban citizenship more inclusive. The former would have further increased the differentials between permanent migrants and temporary migrants. The latter would have reduced the selectivity of permanent migrants and thus narrowed their gaps with temporary migrants. Second, over time, the migration streams first developed by pioneer rural migrants since the 1980s have been joined by others. Because of early migrants' experience as well as the enlarging social networks between origins and destinations, a larger spectrum of the rural population – including the less adventurous and less skilled – is now able to join the migration streams and to work as temporary migrants. It is expected, therefore, that as migration streams mature migration selectivity will decline. If the selectivity among temporary migrants declines, their gaps with permanent migrants will widen.

The selectivity of migrants and their settlement intention has significant implications for the development of both the sending and receiving regions. For example, massive out-migration may cause brain drain and labor shortage. But return migrants may bring capital, knowledge and skills gained through migration experiences back to their origins, which benefits local development. Large scale in-migration may also change the host societies. While in general migrants contribute to the economic development, poorly educated and low-skill migrants may also create significant burdens on the receiving

communities, since they demand services such as health care and education (Clark 2007; Clark and Schultz 1997). Although the impacts of migration to the origin and destination are not the focus of this dissertation, they are relevant. Moreover, an in-depth analysis on migrants' settlement intention would help to better understand the nature of temporary migration in China and the role of *hukou*. Knowing the extent to which temporary migrants are forced to be "temporary" because of their *hukou* status also has important implications for further *hukou* reforms and other policies that facilitate temporary migrants' permanent settlement in the city.

## **1.2 Expected contributions of the study**

Research on internal migration has tended to focus on market economies where the role of institutional factors and policy is generally limited. This dissertation seeks to examine the process of migration in a setting where market forces co-exist with state planning.

A focus on both permanent and temporary migration has important implications for the Chinese society and economy. The *hukou* system bifurcates the Chinese into a rural group and an urban group and makes it difficult for rural citizens to enjoy the rights and benefits reserved for their urban counterparts. In the post-reform era, this institutional divide has not only persisted but reshaped urban China, as reflected by the social and

economic segregation between permanent migrants and temporary migrants in cities. A detailed examination of this two-track migration system and its changes over time is key to understanding the rural-urban inequality and social inequality in China. The findings of the study are also relevant for policymakers, especially those concerned with furthering *hukou* reforms. The findings will be useful for policymakers to identify and assess possible solutions to problems faced by migrants in cities. Reforms of the *hukou* system are expected to foster more efficient allocation of human resources, which in turn may increase economic productivity. Thus, the study also has implications for economic and regional development.

### **1.3 Research questions**

The main objective of this dissertation is to examine and understand the two-track migration system in transitional China, its changes over time, and the factors that contribute to the changes. Specifically, the following research questions will be addressed.

- 1. What are the spatial patterns of permanent and temporary migration? How have the spatial patterns changed between the 1990 and 2000 censuses?*

Identifying the magnitude and spatial patterns of migration is the first step to

understand the process of migration as well as the differentials between permanent and temporary migration. If *hukou* reforms have boosted permanent migration, its gaps with temporary migration in term of magnitude and spatial pattern should narrow over time. Conversely, larger or widening gaps may suggest that *hukou* reforms have not made it easier for migrants to obtain *hukou* change.

*2. What are the demographic and social characteristics of permanent and temporary migrants? To what extent do they differ? How have the differentials between them changed over time? What factors account for the differentials and changes?*

Migration reason and the selectivity of migrants are of great significance for understanding migrants' out-migration decision and their migration experience in the destination. The Chinese census's migration reasons reflect not only the primary drive behind migration, but also the channels through which migration is regulated (Fan 1999; Liu and Chan 2001). The existing literature indicates that permanent and temporary migrants move through very different channels. Since the Chinese economy and society have been under massive transformation, I am interested in seeing whether the above differences have changed. The literature also shows that permanent migrants are highly positively selected compared to temporary migrants. I expect that the differentials in

terms of human capital between permanent migrants and temporary migrants have not reduced but have enlarged over time. This is because overall population mobility in China has increased considerably and migration selectivity is expected to decline as migration streams mature. If *hukou* reforms are not effective in making permanent migration more inclusive, the differentials between permanent migrants and temporary migrants would increase.

3. *To what extent do permanent migrants differ from temporary migrants in terms of their occupational attainment in the destination? How have the differentials between them changed over time? What are the factors that contribute to the differentials and changes?*

Migrants' experience in the destination not only reflects their well-being but also may directly affect their subsequent decision on leaving or staying, and therefore it is an important theme in migration study. Migrants' experience in the destination is largely related to their work. I will examine the differentials in occupational attainment between permanent migrants and temporary migrants. Since permanent migrants are highly positively selected, their occupational attainment is expected to be higher than that of temporary migrants. I am interested in finding out whether the gaps between them have widened or narrowed over time. I will also assess the extent to which migrants' *hukou*

status contributes to their differentials in occupational attainment.

*4. Do temporary migrants consider themselves “temporary”? What are the factors that affect their settlement intention in the destination city?*

Temporary migrants’ settlement intention directly affects their interest in changing their *hukou* to the destination. The prevailing thought in the existing literature is that lack of urban *hukou* is the main factor preventing temporary migrants from settling down in the destination cities (Zhu 2007), which implies that all or most temporary migrants will stay permanently if they are awarded urban *hukou*. I argue that this assumption is questionable. Temporary migrants will not disappear even if the *hukou* system is abolished. Using Wuxi as a case study, I will examine the settlement intention of temporary migrants and the roles of their *hukou* status. The relationship between *hukou* status and other constraints temporary migrants are facing in the city, such as job instability, low income and low coverage of social insurance, are also discussed.

#### **1.4 Summary of the chapters**

In Chapter two, I review the existing literature on permanent migration and temporary migration in general and the research on permanent migration and temporary migration in China in particular. Chapter three documents the magnitude and spatial patterns of permanent migration and temporary migration and their changes between the

1990 and 2000 censuses. Chapter four examines the differentials in migration reason and selectivity between permanent migrants and temporary migrants and how they have changed over time. It also evaluates the determinants of the dichotomy between permanent migrants and temporary migrants via logistic regression models. Chapter five analyzes the occupational attainment of permanent migrants and temporary migrants, focusing on rural-urban migrants. It also assesses the relationship between migrants' occupational attainment and their selectivity as well as *hukou* status based on the results from a multinomial logistic regression. Chapter six focuses on settlement intention of temporary migrants in the destination city based on data from a survey I conducted in Wuxi, a large city in Jiangsu province. It also investigates the factors that affect temporary migrants' settlement intention, including their *hukou* status, job instability, low income, housing conditions and social insurance. Chapter seven summarizes the main findings of the empirical study, discusses the limitations of the study, and provides suggestions for future research.



## **Chapter 2**

### **Literature Review**

This chapter reviews the relevant studies on permanent migration and temporary migration, which inform the conceptual framework of the dissertation.

#### **2.1 Research on permanent migration and temporary migration**

Temporary and circular migration is very common in many developing countries in Asia and Africa (Hugo 1978, 1982; Lee 1980; Nelson 1976; Skeldon 1986). There is a rich body of literature on temporary migration. My review focuses on the different processes of permanent migration and temporary migration.

##### **2.1.1 Selectivity of permanent migration and temporary migration**

Migration is selective (Lee, 1966). Not everyone will be a migrant. The migration decision-making process is affected by the “push and pull” factors at the origin and destination as well as the individual’s own characteristics. Internal migration in developing countries is dominated by rural-urban migration and rural-urban migration is dominated by young, relatively better educated adults (Lucas 1997). Since the costs of moving are typically lower at the early age (weaker ties to origin) and moving at an early

age allows for more time to take advantage of the income differentials between regions and compensate for costs, younger people tend to have higher mobility than older people (Clark 1986; Lucas 1997). Meanwhile, urban jobs require higher skills. Thus, rural-urban migrants are generally positively selected.

In addition to these common characteristics, are there any differences between permanent and temporary migrants? Who are more likely to be temporary migrants? Mainly two groups of temporary migrants are identified in the literature. One group is “target migrants”, who move to accomplish a certain objective, such as marriage, education of themselves or children, saving for a home, etc. (Nelson, 1976). From the very beginning, these migrants intend to return eventually. The other group refers to migrants who intend to stay initially, but are forced or choose to return later. These may include those who are disappointed at the situation in the destination, those who cannot find a job, those who fail to realize their original objective, and those who have to return for family reasons (Lucas 1997). Thus, migrants return for various reasons.

It appears that there is no simple way to generalize whether temporary migrants are positively or negatively selected compared to permanent migrants. Temporary migrants could be either better educated and highly skilled, or those who have failed in the destination. Empirically, the literature shows that in general temporary migrants are negatively selected among migrants. They tend to be older, poorly educated and less

skilled, and therefore face difficulties in finding a job in cities and adapting to urban life (Borjas 1999; Lee 1980; Newbold 2001; Reyes 1997; Stark 1995). These temporary migrants are generally rejected by the city. However, there are studies showing that temporary migrants are positively selected. For example, Saenz and Davila (1992) find that younger and more educated Chicano migrants from the Southwest of the U.S. are more likely to return than other Chicano migrants.

### **2.1.2 Reasons for permanent migration and temporary migration**

Why do some migrants settle permanently in their destinations and some return to their origins? Several theoretical perspectives shed light on this question.

For temporary migrants who are rejected by the city, their initial motivation for out-migration may be exactly the same as those of permanent migrants. For example, the human capital approach emphasizes that people move in order to increase the productivity of their human capital (Sjaastad 1962). An individual moves if he/she believes that the benefits of migration exceed the costs. In the neoclassical views, migrants may simply be attracted by the better jobs and higher income in the city (Todaro 1969). But when migrants cannot find a job or are dissatisfied with the situation in the city, they may choose to return. The segmented labor market approach describes the urban labor market as segmented and consisting of two sectors: a primary sector that

offers relatively high wages and stable jobs and a secondary sector that offers low wages and unstable jobs (Piore 1979; Taubman and Wachter 1986). Although there are jobs in the destination, migrants have access to only certain types of jobs. They tend to be channeled to low skilled and low-paid jobs. The majority of the immigrants in the U.S., especially undocumented immigrants, work in unskilled occupations and informal sectors (Clark 2007). Hugo (1978) finds that permanent migrants in Indonesia are mainly employed in secured wage sectors, whereas temporary migrants work primarily as labor or in informal sectors.

The life-cycle theory and family strategy theory shed light on return migrants' decision-making. The life-cycle theory refers to an optimal life-cycle plan whereby people intend to maximize the wealth or utility of themselves (Saenz and Davila 1992). Temporary migration may have been planned as part of an optimal life-cycle residential location sequence (Borjas and Bratsberg 1996). Based on data from the 1996 Canadian census, Newbold (2001) finds that planned returns among younger and older adults are most likely associated with education or employment. Some younger migrants may go out to pursue a higher education and then come back. Some older migrants may return to their home town when they retire. These decisions of return migration follow an optimal life-cycle plan.

Temporary migration may also serve as a family strategy to maximize household

income and minimize risks by diversifying sources of income (Lacus 1997). Family plays an important role in migration decision-making (Hugo 1995). For instance, families may select some members to migrate to cities. Pooling together the income of all family members may boost security both for the rural-urban migrants and for those who stay in the home village. By leaving some family members in the origin and circulating between origin and destination, temporary migrants may obtain the best of both worlds (Fan 2008: 12; Hugo 2005). Families may educate some members in order for them to migrate and later those migrants may repay the family by financing the subsequent education of younger family members (Connell et al. 1976). Migrants may also be forced to return because of family needs, such as taking care of elder parents, looking after children, and running family business or farm (Gmelch 1980).

Overall the existing literature has provided important insights for understanding permanent and temporary migration. The above theories and findings are relevant to permanent and temporary migration in China. Permanent and temporary migrants in China do share many common characteristics with their counterparts in other countries. For example, temporary migration in China also serves as a family strategy to maximize household income and minimize risks. Many rural migrants keep their farmland in the home village as a security in case they cannot survive in the city (Du and Bai 1997). Also,

many wives are left at home in the village or return from migration after getting married, while husbands go out or continue their work in cities (Fan 2003).

However, migration theories generally do not address the institutional dimension, which is essential for understanding internal migration in China. For example, a significant proportion of temporary migrants are directly or indirectly forced to return due to the lack of urban *hukou*. This type of process is generally not emphasized by migration theory. In this dissertation, I will examine permanent and temporary migration in China from an institutional perspective.

## **2.2 Permanent migration and temporary migration in China**

Large-scale temporary migration did not begin in China until the mid-1980s, and thus the two-track migration system is fairly new with a history of three decades or so (see below). However, population mobility, especially temporary migration, has increased quickly over time. Inter-county migrants between 1995 and 2000 accounted for 6.7 percent of the population aged five and above, compared with 3.4 percent in the period of 1985 to 1990 (Fan 2006). Currently more than 15 percent of Chinese population lives in places other than their home villages, towns or cities<sup>1</sup>. As a result, there is a proliferation of literature on temporary migration. My review below focuses on the differentials

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<sup>1</sup> The latest official estimates of the “floating population” is 211 million (“China’s ‘Floating Population’” 2010).

between permanent migration and temporary migration and temporary migrants' settlement intention.

### **2.2.1 Differentials between permanent migration and temporary migration**

Studies have shown that permanent migration and temporary migration differ considerably in terms of their magnitude and spatial patterns. Yang (2000) finds that between 1978 and 1996, the absolute number and the rate of inter-county permanent migration were relatively stable with a slight decline, whereas temporary migration experienced a rapid increase. In terms of spatial patterns, temporary migrants are more likely than permanent migrants to move cross provinces (Yang 2000). Among inter-provincial migration, temporary migrants tend to move over longer distance than permanent migrants. Meanwhile, the geographic spread of permanent migration is relatively even, whereas the relatively developed Eastern region is clearly the favored destination of temporary migration (Chen 1996; Chen, Li and Siu 1997; Liu and Yang 1999; Yang 2000).

Several studies have examined the characteristics of permanent and temporary migrants. Gu (1992) studies the history of permanent and temporary migration in China. He argues that the primary difference between temporary and permanent migrants is that the former keep their ties to the land. Permanent migrants work in regular sectors in cities

and temporary migrants enter nonregular or traditional sectors. Using the one percent sample of the 1990 census, Chan, Liu and Yang (1999) compare the socioeconomic characteristics of inter-provincial temporary and permanent migrants. They find that permanent migrants tend to originate from urban areas, move through state-sponsored channels (such as job transfer, job assignment and study/training), have an extremely high share of the college-educated and are employed in skilled jobs, while temporary migrants are mostly from rural areas with much lower educational attainment, self-initiated and employed in low-skill jobs. Similar results are revealed by Li and Siu (1997) using Dongguan and Meizhou as the case study. Fan (2002a) finds that in terms of human capital attributes, mobility resources, and labor market entry and shifts, permanent migrants are the most privileged and successful elite, followed by non-migrant natives, and finally by temporary migrants at the bottom of the hierarchy. Table 2.1 summarizes the main differentials between rural-urban permanent migrants and temporary migrants identified by recent studies.



**Table 2.1 Selected characteristics of rural-urban permanent and temporary migrants**

	<b>Permanent migrants</b>	<b>Temporary migrants</b>
<i>Hukou</i> status	Urban and local	Rural and non-local
Access to state-supplied social benefits	Full	None
Educational attainment	High share of college-educated	High share of junior secondary
Migration origin	More urban	More rural
Reasons for migration	Education/training, job assignment, job transfer	Employment in industry and business
Employment	Mostly permanent	Temporary or contract work
Occupation	More in professional and technical categories	Mostly industrial workers
Housing	Same as other local residents	Company quarters and rented housing

Sources: Chan (1996); Chan, Liu and Yang (1999); Fan (2002a, 2002b).

Some studies have also investigated the institutional barriers temporary migrants are facing in cities, such as the *hukou* system (see next section) and labor market segmentation, and made comparisons between temporary migrants and local residents. For example, Feng and Zuo (1999) examine how temporary migrants' lives are different from urban residents. They identify five major consistent gaps between temporary migrants and urban residents: (1) segregated labor market and occupations, (2) low income and poor benefits, (3) temporary housing and residential segregation, (4) individual instead of family migration, and (5) absence of social integration. Several studies have examined the occupational attainment and earning differentials between urban residents and temporary migrants. Based on data from a representative survey in Shanghai, Feng, Zuo and Ruan (2002) analyze the pattern of occupational and income

determination among rural temporary migrants. They find that rural migrants in China are still segregated from urban residents and argue that the social divide between urban and rural areas created under socialism has persisted and has contributed to the formation of a dual society in urban China. Meng and Zhang (2001) find that rural migrants are much less likely to obtain white-collar occupations than urban residents and this significant difference cannot be explained solely by productivity-related reasons (such as educational attainment and work experiences). Wu and Treiman (2007) find that rural-urban *hukou* change significantly increases rural migrants' upward occupational mobility.

Overall it is well established that temporary migrants in China are disadvantaged compared to permanent migrants. Permanent and temporary migrants belong to two very different segments of the population (Li and Siu 1997). However, most of the existing studies examine cross-sectional data at a particular point in time and pay little attention to the dynamics of the migration system, partly due to data limitation. Yet, the *hukou* system has changed considerably since the mid-1980s. The patterns of permanent and temporary migration may have changed also. Moreover, most studies tend to overlook the changes of the migration process itself. Taking advantage of data from both the 1990 and 2000 censuses, this dissertation seeks to provide insights on how permanent migration and temporary migration have changed over time and factors that contribute to the changes. Specifically, I will highlight two processes – *hukou* reforms and the maturation of

migration streams. In the next two sections, I will examine these two processes and their likely impacts on the two-track migration system.

### ***The hukou system and reforms<sup>2</sup>***

Formally implemented in the late 1950s, the *hukou* system has since been an effective means of migration control, especially control over rural-urban migration. Technically, the term *hukou* refers to both *hukou* type (agricultural or nonagricultural) and *hukou* location (place of registration). In this dissertation, I focus on *hukou* location: rural *hukou* refers to registration in a rural area, and urban *hukou* refers to registration in an urban area. Between the late 1950s and the early 1980s, it was next to impossible for rural Chinese without urban *hukou* – and hence the guaranteed access to food, employment, housing, and other necessities – to survive in cities. Therefore, rural-urban migration was kept at a minimum. Since the 1980s, the country's pursuit of economic growth has boosted urban demand for labor, especially cheap labor, in industry and services, thus exerting a pull for rural migrants. At the same time, expanded markets for goods and necessities have made it possible for rural migrants to work and live in cities. Most of these migrant workers are temporary migrants because they are not eligible to change their registration to urban areas.

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<sup>2</sup> Much of the material in this section is informed by Fan (2008: 40-53) and has been published in Sun and Fan (2011).

Like other remnants of the central planning system, the *hukou* system has been subject to revisions and reforms since the 1980s, in part because of critics' argument that migration control impedes economic growth and that the *hukou* system perpetuates rural-urban inequality (e.g., Yu 2002: 5; Alexander and Chan 2004; Wang 2005; Fan 2008: 47-52). In 1985, the Ministry of Public Security began to issue "temporary residence cards" for migrants to live and work in places away from their *hukou* location. In the late 1980s, some city and town governments began to offer new forms of urban *hukou* to eligible migrants. Eligibility for these new *hukou* is usually tied to home purchase, investment, age, education, and skills, although the specific criteria vary from place to place and may change frequently. Shanghai, for example, offered a "blue stamp" *hukou* in the mid-1990s to investors, new homeowners, and professionals (Wong and Huen 1998). In 2002, Shanghai replaced blue stamp by a new resident card to accommodate skilled workers, overseas Chinese, and foreigners (Blue cover residency ends 2002). Between 2007 and 2009, Tianjin had adjusted its criteria for blue stamp *hukou* several times to boost or monitor home purchase (Tianjin 2009). Clearly, these efforts aim at attracting the most desirable elements of the migrant population in order to boost the city's economy and human resources. The objective is creaming rather than redistributive, and accordingly these programs exclude the vast majority of rural-urban migrants.

At the same time, efforts have been made to extend urban *hukou* to a larger

spectrum of rural migrants. In 1997, the State Council approved a pilot scheme to award urban *hukou* to migrants that have a stable job and have resided in the place of residence for more than two years. After being tested in 450 cities and towns, in 2001 the scheme was further expanded. In 1998, the State Council approved guidelines making it easier for urban residents' immediate family – spouse, parents, and children – to obtain urban *hukou* (Yu 2002: 381). For example, persons with rural *hukou* married to urban residents may be granted urban *hukou* after staying in the city for one year. The purpose of these schemes and guidelines is to lower the threshold such that more rural Chinese can obtain urban *hukou* and enjoy the same benefits and status as urban citizens. Other changes include issuing new forms of identity to rural migrants. Shenzhen, for example, rolled out a new resident permit system in August 2008 that enabled migrants who have worked in the city for more than a month, own a property or have a business to enjoy a range of free public services including low-cost housing (China Daily 2008). And, in recent years, an increasing number of cities have eliminated the distinction between agricultural and nonagricultural *hukou* (Congressional-Executive Commission on China 2005; Chan and Buckingham 2008).

Not only are the multitude and variety of *hukou* reforms complex and confusing, but they also make it difficult to assess if the reforms have made it easier or harder for migrants to change their *hukou*. In practice, adherence to State Council guidelines on

*hukou* is up to individual city governments. In most large cities, stringent criteria for *hukou* continue to reinforce the practice of creaming. And, city governments can reverse *hukou* reforms at will (China Daily 2004; Zhongguo qingnianbao 2007). Chan and Buckingham (2008) argue that devolution of *hukou* management to local governments in many cases makes it harder for rural Chinese to obtain urban *hukou*. Although some observers claim that *hukou* distinction is no longer important, there is plenty of evidence to suggest that *hukou*-based barriers remain powerful gatekeepers that deny rural migrants urban citizenship (Wang 2005: 202; Chan and Buckingham 2008).

If *hukou* reforms have indeed lowered the threshold for urban *hukou*, then I would expect that over time a larger spectrum of rural migrants – not only the skilled and wealthy – to become permanent migrants. On the contrary, if the *hukou* system continues to uphold the logic of segmentation and creaming, then I would expect permanent migration to remain highly selective and the gaps between permanent migrants and temporary migrants to remain large.

### ***Maturation and selectivity of migration***<sup>3</sup>

Migration is selective (Lee 1966). Most migrants are young and in the middle of the socioeconomic hierarchy – those at the bottom may not have the resources needed for migration, and those at the top may not feel the need to seek new opportunities via

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<sup>3</sup> This section has been published in Sun and Fan (2011).

migration (Massey et al. 1994). Pioneer migrants must overcome uncertainties, chart new paths of migration and settlement, and develop new networks and inroads into the destination's labor market. The risks and costs involved demand that pioneer migrants be an especially selected group: they are adventurous, have relevant skills, and are resourceful to tap into opportunities at the destination.

Once begun, migration streams often are self-sustaining (Boyd 1989; Massey 1990; Massey et al. 1994). Pioneer migrants' accumulation of experience enables family and acquaintances to join the migration streams. As more migrants follow the paths of earlier migrants, information about the destination as well as social networks between the origin and destination multiply. These networks are especially important where high informational or psychic costs are involved, such as international migration (Zhao 2003), and they can become a form of social capital that potential migrants can draw on (Massey et al. 1993). Social networks reduce the risks and costs of migration, allowing a greater spectrum of people to join the migration streams. Thus, "migration should become progressively less selective and spread from the middle to the lower segments of the socioeconomic hierarchy (Massey et al. 1993: 461)."

Many studies on international migration examine the notion that as migration streams mature the selectivity of migration declines. A large body of literature on Mexico-U.S. migration has produced evidence supporting that notion. Chiswick (1986)

shows that from the 1950s and 1960s to the 1970s, Mexican immigrants' level of educational attainment declined. Focusing on 19 Mexican communities that sent migrants to the U.S., Massey et al. (1994) find that over time migration streams became increasingly diverse and increasingly representative of the home community. The earliest Mexican migrants to the U.S. were typically men of working age and from the middle of the socioeconomic hierarchy. As information about migration spread, other young men, women, and children joined the streams. Borjas (1995) documents that between the 1970s and 1980s the relative wage of Mexican immigrants declined, suggesting that over time the cohort quality of immigrants had weakened. A recent study by McKenzie and Rapoport (2007) finds that in origin communities with weak migrant networks, migration propensity increases with increasing educational attainment. In communities with strong networks, however, migration propensity decreases with increasing educational attainment. Networks, therefore, reduce migration selectivity and enable a larger spectrum of individuals to join the migration streams.

Research on international migrants from Asia, likewise, reinforces the negative relationship between migration maturation and selectivity. Chiswick (1986) shows that Asian immigrants to the U.S. in the 1970s had lower levels of educational attainment than earlier immigrants. Examining the socioeconomic profile of Fujianese migrants to the U.S., many of whom pursuing illegal means to enter, Liang (2001b) finds that the



migrants are increasingly diverse. Over time, the age of migrants declined, the level of educational attainment of migrants became lower, increased number of women entered the migration streams, and rural areas became the dominant source of migrants. At the same time, since the 1980s, large numbers of high-skilled, highly educated individuals have migrated from Taiwan, Hong Kong and mainland China to North America for economic, educational, and/or political reasons (Skeldon 1997; Waters 2002). They are highly selected and thus at the opposite end of the socioeconomic spectrum from the Fujianese migrants. It is important to note that these elite migrants constitute a migration system different from the Fujianese migrants'. Despite the former's superior socioeconomic attainments, therefore, they do not undermine the notion that migration maturation reduces selectivity.

The above findings, based primarily on international migration, are relevant to my study because of two characteristics of China's internal migration. First, as described earlier, *hukou* acts as a barrier to permanent migration and serves the function of an "internal passport." Second, like many international migrants, rural-urban migrants in China rely heavily on social networks to identify prospective destinations, find jobs at the destination, facilitate migration and ease adjustment. Numerous studies have underscored the important role of social networks among temporary migrants (e.g., Chan et al. 1999; Rozelle et al. 1999). Based on sample surveys in Shanghai and Jiangsu, Zhao (2000)

reports that more than half of self-initiated migrants used assistance from relatives and friends when they first pursued migrant work. He shows also that migration propensity is higher in villages with a long history of migrant work than those with a short history. Drawing from surveys in Jinan, Shangdong and Dongguan, Guangdong, Meng (2000: 175) observes that more than 70 percent of rural-urban migrants found their first job through contacts with relative, friends or fellow villagers. A survey in Sichuan and Anhui finds that social networks were the main reason for about 60 percent and more than 50 percent of rural migrants to choose a destination and to find migrant work, respectively (Fan 2008: 72).

Given the increase of temporary migration since the 1980s, the persistence of specific migration streams – such as those between inland and coastal provinces (Fan 2008: 19-39) – and the prominence of social networks in shaping temporary migration, it is expected that the selectivity of temporary migrants would decline over time. Although there is little systematic research on how migration selectivity in China has changed, some studies have noted increased diversity among recent migrants. In the 1980s, there were more male migrants than female migrants, but by the late 1990s women were more highly represented than men among migrants of peak ages (Fan 2008: 78). There is also evidence that over time an increased proportion of married women have joined the rural-urban migration streams (Fan and Wang 2008; Ma et al. 2004). These findings

suggest that migrant work is no longer just a short-term solution but has become a way of life and a long-term family strategy (Fan 2009). The newer migrants are drawn from a wide spectrum of the rural population. The decline in migration selectivity, accordingly, is expected to further widen the gaps between permanent migrants and temporary migrants.

### **2.2.2 Settlement intention of temporary migrants**

It is not until recent years that scholars started to pay attention to the settlement intention of temporary migrants in China. The literature on this topic is relatively sparse. In general, studies focus on the extent to which temporary migrants have intention to stay permanently in the destination cities and factors affecting their settlement intention. However, the findings are mixed and inconclusive.

Most studies have documented that the proportion of temporary migrants who have intention to stay permanently in the destination cities ranges from 14.0 percent (Ren and Dai 2003) to 63.7 percent (Xiong 2007). The large variation partly comes from the fact that these studies use different indicators and are conducted in different places and at different times. At least four different indicators of settlement intention have been used: (1) willingness to give up or sell their land in the home village (Cai and Wang 2008; Xiong and Shi 2009), (2) willingness to change their *hukou* to the destination city (Cai and Wang 2008; Zhu 2007), (3) willingness to live in the destination city (Cai and Xu

2009; Xiong and Shi 2007), and (4) whether migrants have a long-term plan to live in the destination city (Li and Chen 2010; Wei and Zhu 2008; Wu 2005; Xu 2010; Zhao 2006; Zhu 2007; Zhu and Chen 2009). Among them, whether migrants have a long-term plan to live in the destination city is a better indicator than the first three. This is because the willingness to give up land in the home village, to change the *hukou* to the city, and to live in the city, may not actually translate into permanent migration. In this dissertation, I use having a long-term plan to stay in the city as the indicator of migrants' settlement intention.

In the literature, two types of long-term plans are addressed – long-term plan if migrants had free choices (Wei and Zhu 2008; Zhu 2007; Zhu and Chen 2009) and long-term plan under current conditions (Li and Chen 2010; Wu 2005; Xu 2010; Zhao 2006). The former can be seen as migrants' preferred settlement intention if there were no constraints, and the latter is migrants' current settlement intention. The combination of these two types of settlement intention and the reasons behind them may shed important light on not only temporary migrants' settlement intention but also the constraints in their lives that affect their choices. Interestingly, rarely do studies examine two types of settlement intention, but I will use both in my Wuxi survey.

Studies have also investigated the determinants of temporary migrants' settlement intention, including their demographic and socioeconomic characteristics. In general,

temporary migrants with longer migration experience are more likely to have intention to settle down in the city (e.g. Guo 2010; He and Guo 2004; Wang and Ding 2007; Wu and Zhu 2007). However, results about other determinants are less conclusive. For example, some studies find that temporary migrants who have intention to stay permanently are likely to be female and better educated (e.g. Cai and Xu 2009; Gao 2008; Li and Chen 2010; Tan 2007; Wei and Zhu 2008; Zhu and Chen 2009), while other studies find that gender and education do not matter (e.g. Guo 2010; Hou, Yang and Li 2004; Huang 2008; Xiong and Shi 2007; Zhao 2006). Similarly, some studies show that temporary migrants with relatively high income, better housing conditions and social insurance in the city are more likely to have intention to stay than those with low income and poor housing conditions, and without insurance (e.g. Huang 2008; Xu 2010), whereas other studies show that these variables have no effect on migrants' settlement intention (e.g. He and Guo 2004; Li and Chen 2010; Zhu and Chen 2009). It appears that more work is needed to better understand temporary migrants' settlement intention. In this dissertation, I will focus on the constraints temporary migrants are facing that make it difficult for them to settle down in the city. I argue that *hukou* status is still a significant constraint that prevents temporary migrants from settling down. Lack of local *hukou* puts additional constraints on temporary migrants' lives in the city, such as job hunting, home purchase, and social insurance.

The above review has shown that permanent migration and temporary migration in China cannot be understood independent of the *hukou* system and the evolution of the migration system itself. In the empirical analysis in Chapters three to five, I will examine the differentials in spatial patterns between permanent migration and temporary migration, the differentials in selectivity and occupational attainment between permanent migrants and temporary migrants, focusing on the changes over time. To better understand the nature of temporary migration in China, in Chapter six, I will study temporary migrants' settlement intention in the destination city and how their *hukou* status affects their settlement intention.

# **Chapter 3**

## **Magnitude and Spatial Patterns**

### **of Permanent Migration and Temporary Migration**

This chapter provides an overview of the magnitude and spatial patterns of permanent and temporary migration flows and their changes between the 1990 and 2000 censuses. Before actually turning to the empirical analysis, I will first describe the census data used in chapters three to five.

#### **3.1 The 1990 and 2000 population censuses**

National population censuses typically provide the most complete and representative data on internal migration across the country (Goodkind and West 2002). China conducted five national population censuses in 1953, 1964, 1982, 1990 and 2000 respectively. However, only the most recent 1990 and 2000 censuses contain systematic information on population movement. In this dissertation, I use the 1990 and 2000 censuses as my primary data sources to examine national-level patterns of permanent and temporary migration. The empirical analysis is mainly based on data from the printed publications by the National Bureau of Statistics (NBS) and two sets of micro-level sample. One is a one-percent sample of the 1990 census, and the other is a 0.1-percent sample of inter-provincial migrants from the 2000 census. Unless otherwise specified, the

analysis in this dissertation focuses on inter-provincial migration.

### **The 1990 census**

The 1990 census one-percent sample is a clustered village-level sample, which contains information about every individual in all households of the sampled village-level units (village, town or street (*jiedao*) in cities). This sample set has a total of 11,475,104 records among which 115,342 are inter-provincial migrants. Numbers reported in the dissertation based on this sample are inflated by 100 times.

In the 1990 census, a migrant is defined as a person aged five or above who on the date of enumeration (July 1, 1990) resides in a city or county different from that five years ago (July 1, 1985). In addition, migrants who have changed their *hukou* to the place of enumeration are considered permanent migrants, and those who have not changed their *hukou* to the place of enumeration but have lived there for more than one year or left his/her *hukou* location for more than one year are considered temporary migrants.

### **The 2000 census**

In the 2000 census, more detailed information on population movement is collected. For the first time in China, the 2000 census uses both a short-form questionnaire and a long-form questionnaire. The short-form questionnaire surveys basic demographic information of individuals and households. The long-form questionnaire



surveys in greater depth various aspects of mobility, employment and housing. For example, the long-form questionnaire includes detailed information on migrants' origins and the year they moved to the current place of residence. The one-percent sample of inter-provincial migrants from the long form of the 2000 census has a total of 30,080 records. The long forms are filled out by 9.5 percent of the total population counted in the census (NBS 2002). Therefore, numbers presented in the dissertation based on this micro sample are inflated by  $100/0.095$  times. For convenience, hereafter, I refer to this sample as the 2000 census 0.1-percent inter-provincial migrant sample.

The 2000 census uses similar definitions of permanent and temporary migrants, but with slightly different spatial and temporal criteria (see below). A migrant is defined as a person aged five or above who on the date of enumeration (November 1, 2000) resides in a town, township or street different from that five years ago (November 1, 1995). Again, permanent migrants are defined as those who have changed their *hukou* to the place of enumeration. Temporary migrants are defined as those who have not changed their *hukou* to the place of enumeration but have lived there for more than six months or left his/her *hukou* location for more than six months.

### **Comparing the two censuses**

Migration data from two consecutive censuses provide a unique opportunity to document the changes in migration process in China. Two issues, however, need to be

addressed while comparing data from the two censuses due to the changes in temporal and spatial criteria.

First, the temporal criterion of temporary migrants – the minimum length of stay in the place of enumeration or length of time since leaving the *hukou* location – is reduced from one year in the 1990 census to six months in the 2000 census. This change has likely increased the total migrant count, but most researchers expect the effect to be small (Huadong shifan daxue 2005: 1216; Liang 2001a). And, since this dissertation's overall concern is migrants' characteristics rather than their magnitudes, this definitional change is not expected to unduly affect the findings.

Second, the spatial criterion of migration has changed from across county-level (county, county-level city or city district) boundaries in the 1990 census to across subcounty-level (town, township or street in cities) boundaries in the 2000 census. This means that people who move between subcounty-level units but within a county-level unit are not counted as migrants in the 1990 census but are counted as migrants in the 2000 census. The 1990 census records inter-county migration only but the 2000 census documents also intra-county moves. Because this dissertation's analysis deals mainly with inter-provincial migration – rather than inter-county and intra-county moves within provinces – the spatial change of the definition has no effect on the findings.

### **3.2 Changes in size and proportion**

Generally, there are two ways to look at the magnitude of migration: migration flow and migration stock (Fan 2008; Goodkind and West 2002). Migration flow is defined as the number of individuals who moved across certain administrative boundary between two specific points in time. For example, in the U.S. census, as well as in China's 1990 and 2000 censuses, a person is considered as a migrant if his/her regular place of residence on the census date is different from that five years ago. Migration stock does not depend on a specific time period and counts all individuals whose current place of residence is different from their places of birth, or in the Chinese context, their places of *hukou* registration. For example, the 2000 census records 144 million "floating population" that live in places other than their places of *hukou* registration. In this chapter, I focus on comparing migration flows, not migration stock.

#### **3.2.1 Permanent and temporary migrants**

Table 3.1 lists the volumes of inter-county and inter-provincial migration documented by the 1990 and 2000 censuses, broken down into permanent and temporary migrants. According to the 1990 census, there are 35.3 million inter-county migrants, among whom 11.5 million (32.6 percent) are inter-provincial migrants. By the 2000 census, among the 79.1 million inter-county migrants, 31.7 million (40.1 percent) are

inter-provincial ones. Clearly, in the late 1990s, more migrants moved over long distance than in the late 1980s. The importance of inter-provincial migration has been increasing over time, which reflects the maturation of migration streams and lowered barriers for migration.

**Table 3.1 Permanent and temporary migration in China, 1990 and 2000**

	<b>1990 census</b>		<b>2000 census</b>	
	<b>Volume (million)</b>	<b>Percent</b>	<b>Volume (million)</b>	<b>Percent</b>
<b>Inter-county migrants</b>	35.3	100.0	79.1	100.0
Permanent migrants	19.1	54.1	20.2	25.6
Temporary migrants	16.2	45.9	58.8	74.4
<b>Inter-provincial migrants</b>	11.5	100.0	31.7	100.0
Permanent migrants	5.4	46.7	4.2	13.2
Temporary migrants	6.2	53.3	27.5	86.8

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Inter-county migrants in the 2000 census: Liang and Ma (2004).

Notes: See also Fan (2008: 23); Sun and Fan (2011).

Meanwhile, the composition of permanent and temporary migration also has changed considerably. The 1990 census documents a total of 35.3 million inter-county migrants, among whom 19.1 million (54.1 percent) are permanent migrants and 16.2 million (45.9 percent) are temporary migrants (Table 3.1). The 2000 census shows only a slight increase of permanent migrants to 20.2 million but a more than three-fold increase of temporary migrants to 58.8 million. Accordingly, the share of temporary migrants has increased sharply, from 45.9 percent to 74.4 percent.

Among inter-provincial migrants, likewise, the volume and share of temporary

migrants have increased considerably. Between the two censuses, the number of inter-provincial temporary migrants increases from 6.2 million to 27.5 million, and their share increases from 53.3 percent to 86.8 percent. The number of inter-provincial permanent migrants has, in fact, declined, from 5.4 million to 4.2 million, and their share shrunk from 46.7 percent to 13.2 percent.

### **3.2.2 Rural-urban migrants**

The estimation of rural-urban migration is complicated by three factors. First, the definitions of urban population and places in China have changed many times (Chan and Hu 2003; Zhou and Ma 2003). Second, the Chinese census documents migrants' origins and destinations based on the spatial administrative hierarchy rather than rural and urban definitions. Finally, the origin and destination categories in census samples are not consistent over time. To clarify the definitional issues for the empirical analysis, in the following I elaborate on the second and third factors.

At the county (third) level of China's administrative hierarchy, two types of units are most commonly identified: "cities (*shi*)" and "counties (*xian*)."<sup>1</sup> Cities are more urbanized than counties, but the former may contain large numbers of rural population and the latter may contain significant numbers of urban population (Zhou and Ma 2003). At the township (fourth) level, there are three types of units: "streets (*jiedao*)," "towns

(*zhen*),” and “townships (*xiang*).” In the urban-rural continuum, streets are the most urbanized and townships are the most rural.

The sample from the 1990 census allows me to document migrants’ origins at the fourth level – streets, towns and townships – and their destinations at the third level – cities and counties. Within the confines of available data and definitions of the 1990 census, therefore, I define rural-urban migrants as those who move from township origins to city destinations. They account for 26.7 percent of all inter-provincial migrants (Table 3.2).

**Table 3.2 Origin and destination types of inter-provincial migrants (%), 1990 and 2000.**

Origin	Destination						
	1990 census			2000 census			
	Cities	Counties	Total	Cities	Towns	Counties	Total
<b>Streets</b>	17.7	8.6	26.3	9.2	1.6	2.0	12.8
<b>Towns</b>	6.4	7.5	13.9	24.7	10.6	12.6	48.0
(Residents’ committees)				(4.4)	(1.5)	(1.3)	(7.2)
(Villagers’ committees)				** (20.3)	*** (9.1)	(11.3)	(40.8)
<b>Townships</b>	*26.7	33.1	59.8	**19.4	***8.2	11.7	39.2
<b>Total</b>	50.8	49.2	100.0	53.4	20.4	26.2	100.0

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: See also Fan (2008: 26); Sun and Fan (2011); \*: rural-urban; \*\*rural-urban 1 (ru1); sum of \*\* and \*\*\*: rural-urban 2 (ru2).

The sample from the 2000 census has streets and townships as origins but further subdivides town origins into “residents’ committees” and “villagers’ committees.” This disaggregation is useful because residents’ committees are usually considered urban and villagers’ committees rural. Therefore, I define both townships and villagers’ committees

as rural origins, which is more accurate than defining entire towns as rural (or urban). The sample has three categories of migrant destinations – cities, towns, and counties. There is little information about how the “town” destination category is defined, such as whether these towns are administered by cities or counties. This uncertainty led me to decide to use two definitions of urban destination: (1) cities only; and (2) cities and towns.

Accordingly, for the 2000 census, I use two definitions of rural-urban migration. They differ in how urban destinations are defined. Rural-urban 1 (hereafter ru1) is more restrictive and refers to migrants from townships or villagers’ committees to cities. Rural-urban 2 (hereafter ru2) is more relaxed and refers to migrants from townships or villagers’ committees to cities or towns. These two definitions account for, respectively, 39.7 percent and 57.0 percent of all inter-provincial migrants. Regardless of which definition is used, it is clear that between 1990 and 2000 the share of rural-urban migration among all migrants has significantly increased.<sup>4</sup>

Table 3.3 shows the volume of rural-urban migration, broken down into permanent and temporary migrants. The finding of relative increase of temporary migrants and relative decline of permanent migrants, as observed in Table 3.1, is even more pronounced among rural-urban migrants. The 1990 census documents 0.8 million (26.1 percent) permanent migrants and 2.3 million (73.9 percent) temporary migrants.

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<sup>4</sup> Even if I included towns as rural origins for the 1990 census, thus yielding a rural-urban migration of 33.1 percent, there is still a significant increase of rural-urban migration from 1990 to 2000.

Using the ru1 and ru2 definitions, the 2000 census documents 0.9 million (7.1 percent) permanent migrants and 11.7 million (92.9 percent) temporary migrants, and 1.1 million (5.9 percent) permanent migrants and 17.0 million (94.1 percent) temporary migrants, respectively.

**Table 3.3 Inter-provincial rural-urban migration in China, 1990 and 2000**

	1990 census			2000 census					
	Rural-urban			Rural-urban 1 (ru1)			Rural-urban 2(ru2)		
	PM	TM	All	PM	TM	All	PM	TM	All
<b>Volume (million)</b>	0.8	2.3	3.1	0.9	11.7	12.6	1.1	17.0	18.1
<b>Percent</b>	26.1	73.9	100.0	7.1	92.9	100.0	5.9	94.1	100.0

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Note: PM: permanent migration; TM: temporary migration. See also Sun and Fan (2011).

In summary, over time the size and proportion of temporary migration have increased considerably, while the size of permanent migration has stayed about the same and its proportion has dropped sharply. These changes suggest that despite the profound increase in migration propensity and momentum, it is still very difficult for Chinese migrants, especially rural-urban migrants, to obtain *hukou* and permanent status in their destinations.

### 3.3 Changes in spatial pattern

The remaining part of this chapter discusses the different spatial patterns of



permanent and temporary migration by looking at their flows across provinces, regions and different types of origin and destination.

Figure 3.1 illustrates the provincial-level units and the three economic regions (belts) in China. There are 31 provincial-level units (hereafter provinces) in China, including 22 “regular” provinces, 5 autonomous regions, and 4 centrally administrated municipalities. Chongqing became a centrally administrated municipality in 1997. To facilitate comparison over time, I merged Chongqing with Sichuan. Thus, in this dissertation, the analysis includes a total of 30 provinces. Furthermore, I adopt the “three economic belts” scheme based on the Seventh Five-Year Plan (1986-1990), which is commonly used in investigating regional development in China (Fan 1995; Lee 2000; Fan and Sun 2008). These three regions are highly different in terms of their levels of economic development, which is very important for understanding the spatial patterns of migration. Overall, the coastal Eastern Region is the relatively developed region. In 2000, 42.0 percent of China’s population lived in this region and its per capita GDP was 1.5 times of the national average (Table 3.4). In contrast, the interior Western Region is much less developed. With 23.0 percent of the nation’s population, its regional per capita GDP in 2000 was only 60 percent of the national average. The Central Region is between the Eastern and Western regions in per capita GDP.

**Figure 3.1 Provincial-level units and the three regions in mainland China**



Note: Chongqing is combined with Sichuan.

**Table 3.4 Population and per capita GDP by province, 2000**

	Population		GDP per capita		
	(1,000)	Percent	Level (Yuan)	Ratio to national average	Average annual growth rate 1990-2000* (percent)
<b>Eastern Region</b>	<b>530,755</b>	<b>42.0</b>	<b>11,210</b>	<b>1.5</b>	<b>13.2</b>
Beijing	13,212	1.0	23,926	3.1	12.5
Tianjin	9,815	0.8	17,340	2.3	12.4
Hebei	66,565	5.3	7,577	1.0	12.6
Liaoning	41,825	3.3	11,163	1.5	10.0
Shanghai	15,440	1.2	30,901	4.0	13.4
Jiangsu	72,840	5.8	11,743	1.5	13.0
Zhejiang	45,863	3.6	13,368	1.8	14.3
Fujian	33,780	2.7	11,144	1.5	15.5
Shandong	89,620	7.1	9,303	1.2	12.6
Guangdong	86,500	6.8	12,418	1.6	15.5
Guangxi	47,505	3.8	4,412	0.6	10.2
Hainan	7,790	0.6	6,763	0.9	11.2
<b>Central Region</b>	<b>443,725</b>	<b>35.1</b>	<b>5,317</b>	<b>0.7</b>	<b>10.2</b>
Shanxi	32,378	2.6	5,701	0.7	9.1
Inner Mongolia	23,698	1.9	6,495	0.9	10.4
Jilin	26,742	2.1	7,298	1.0	10.4
Heilongjiang	38,015	3.0	8,290	1.1	9.3
Anhui	60,895	4.8	4,766	0.6	9.7
Jiangxi	42,085	3.3	4,760	0.6	10.4
Henan	94,710	7.5	5,335	0.7	13.1
Hubei	59,563	4.7	5,952	0.8	8.9
Hunan	65,639	5.2	5,411	0.7	9.6
<b>Western</b>	<b>290,271</b>	<b>23.0</b>	<b>4,640</b>	<b>0.6</b>	<b>9.2</b>
Sichuan	116,810	9.2	4,735	0.6	9.9
Guizhou	37,543	3.0	2,743	0.4	8.1
Yunnan	42,399	3.4	4,743	0.6	9.0
Tibet	2,592	0.2	4,544	0.6	8.7
Shaanxi	36,385	2.9	4,958	0.6	9.0
Gansu	25,589	2.0	4,115	0.5	6.7
Qinghai	5,165	0.4	5,106	0.7	9.7
Ningxia	5,533	0.4	5,332	0.7	9.5
Xinjiang	18,256	1.4	7,472	1.0	9.9
<b>National</b>	<b>1,264,751</b>	<b>100.0</b>	<b>7,635</b>	<b>1.0</b>	<b>10.5</b>

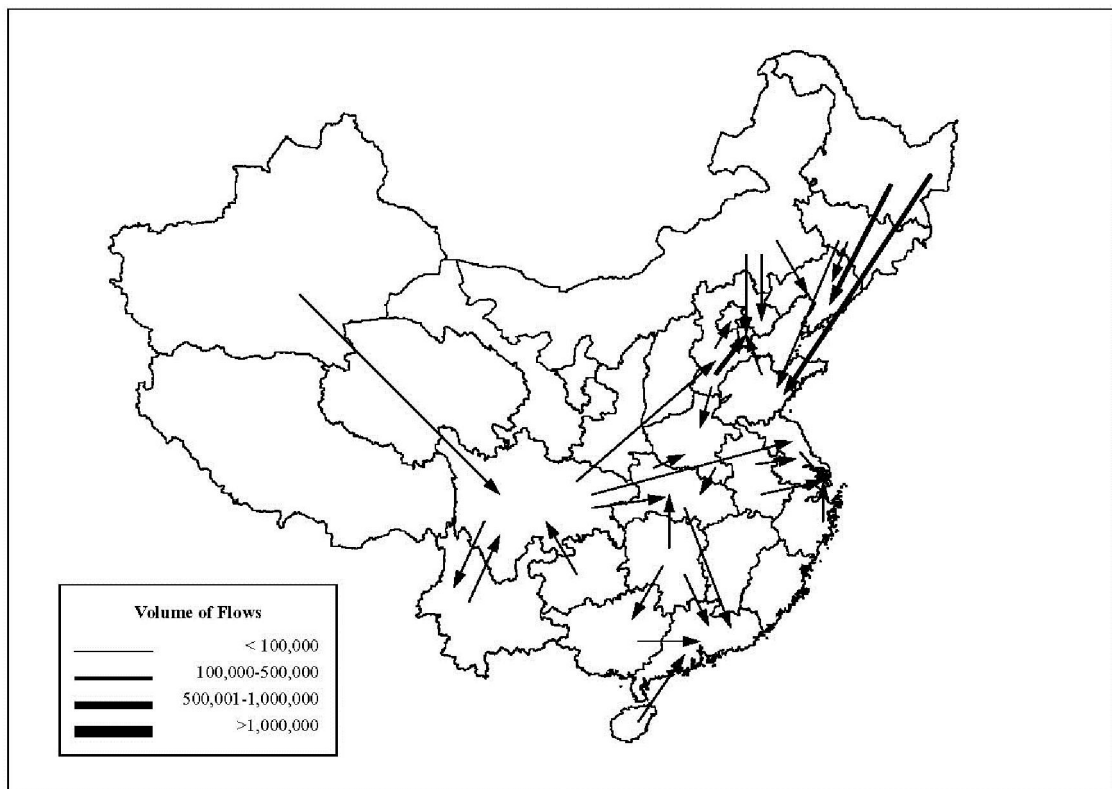
Sources: Compiled from NBS (1991, 2007) and provincial statistical yearbooks for 2006.

Note: \*: Average annual growth rate is calculated in 2000 constant price.

### 3.3.1 Inter-provincial migration

To illustrate the popular sending and receiving provinces and how the migration flows have changed over time, Figures 3.2 to 3.5 depict the 30 largest flows of inter-provincial permanent and temporary migration in the 1990 and 2000 censuses.

**Figure 3.2 The 30 largest flows of inter-provincial permanent migration, 1990**

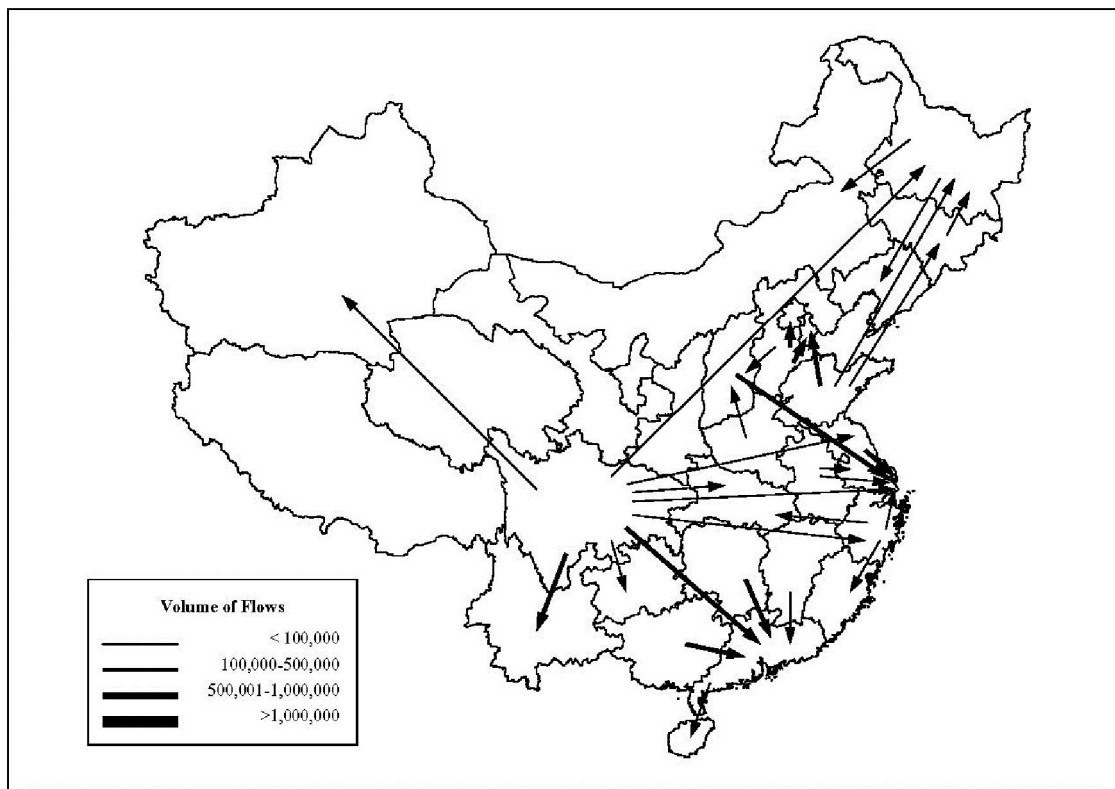


Source: 1990 census one-percent sample.

In the 1990 census, permanent and temporary migration flows share some popular sending provinces, such as Sichuan and Hebei, and popular receiving provinces, like

Shanghai, Tianjin and Guangdong (Figures 3.2 and 3.3). However, permanent and temporary migration flows differ in at least two aspects. First, permanent migration flows tend to be smaller and more dispersed than temporary migration flows. The 30 largest flows in Figure 3.2 account for 29.7 percent of the total permanent migration and the flows are relatively small. Only three of them are larger than 100,000, namely from Hebei to Tianjin, Heilongjiang to Liaoning, and Heilongjiang to Shandong. Many of these migrants were those who moved to Heilongjiang to help and support its construction and development in the 1960s and 1970s and returned to their hometowns since the 1980s (Chan, Liu and Yang 1999). Also, there are some two-way permanent migration flows between neighboring provinces, such as Yunnan and Sichuan, Henan and Hubei. In contrast, temporary migration flows are spatially more concentrated. The 30 largest flows in Figure 3.3 account for 44.5 percent of the total temporary migration. Nine flows are larger than 100,000, mainly toward relatively developed coastal provinces, such as Beijing, Tianjin, Shanghai and Guangdong. And, all flows are unidirectional. It appears that temporary migrants are more responsive than permanent migrants to gaps in economic development, which is consistent with the fact that the vast majority of temporary migrants move for economic reasons (see chapter 4 for a detailed discussion).

**Figure 3.3 The 30 largest flows of inter-provincial temporary migration, 1990**

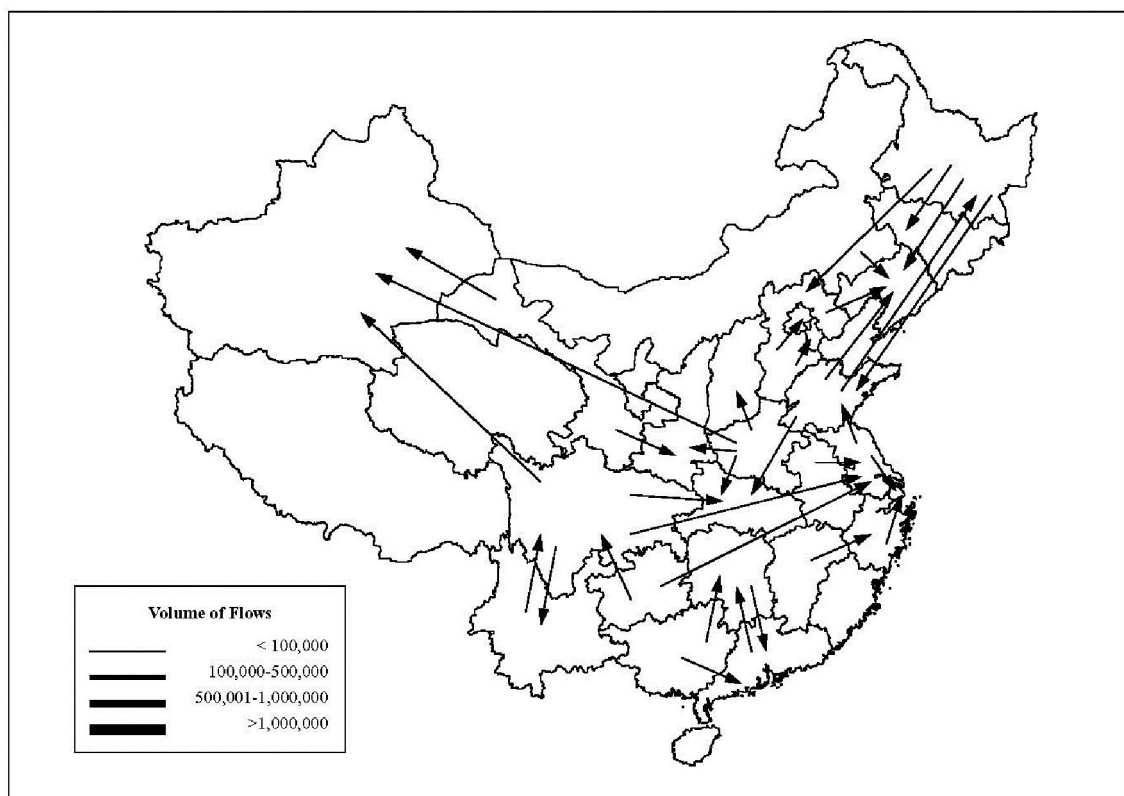


Source: 1990 census one-percent sample.

Second, at both the inter-county and inter-provincial levels, temporary migrants tend to move longer distance than permanent migrants. In the 1990 census, among 19.1 million and 16.2 million inter-county permanent and temporary migrants respectively, 28.3 percent (5.4 million) and 37.7 percent (6.1 million) are inter-provincial (Table 3.1). Many more temporary migrants than permanent migrants move across provinces. Among inter-provincial migrants, most permanent migration flows are between adjacent provinces (Figure 3.2), which are likely to have similar languages, culture and

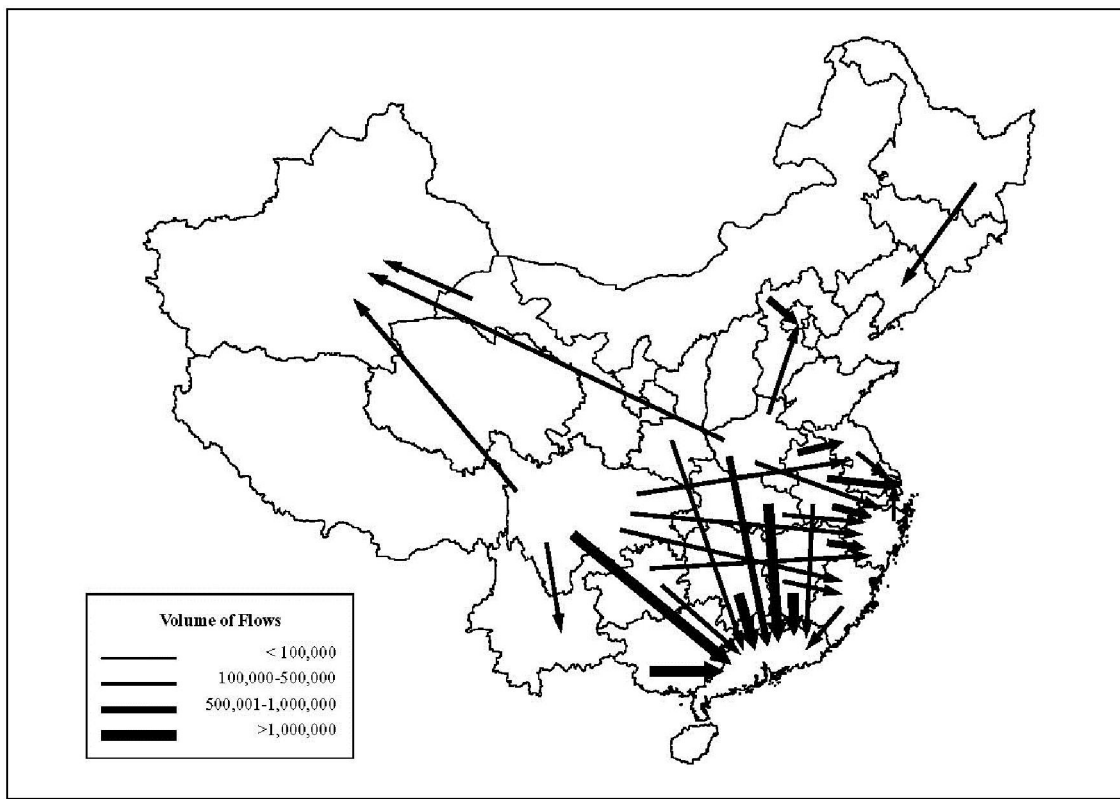
environment. For temporary migration, although the largest flows are between neighboring provinces (from Guangxi to Guangdong, Jiangsu to Shanghai and Hebei to Tianjin), 12 out of the 30 flows are across more than one province (Figure 3.3). Many temporary migrants are willing to travel hundreds, even thousands, of kilometers to find jobs or business opportunities, such as from Sichuan to Guangdong, to Xinjiang, and even to Heilongjiang.

**Figure 3.4 The 30 largest flows of inter-provincial permanent migration, 2000**



Source: 2000 census 0.1-percent inter-provincial migrant sample.

**Figure 3.5 The 30 largest flows of inter-provincial temporary migration, 2000**



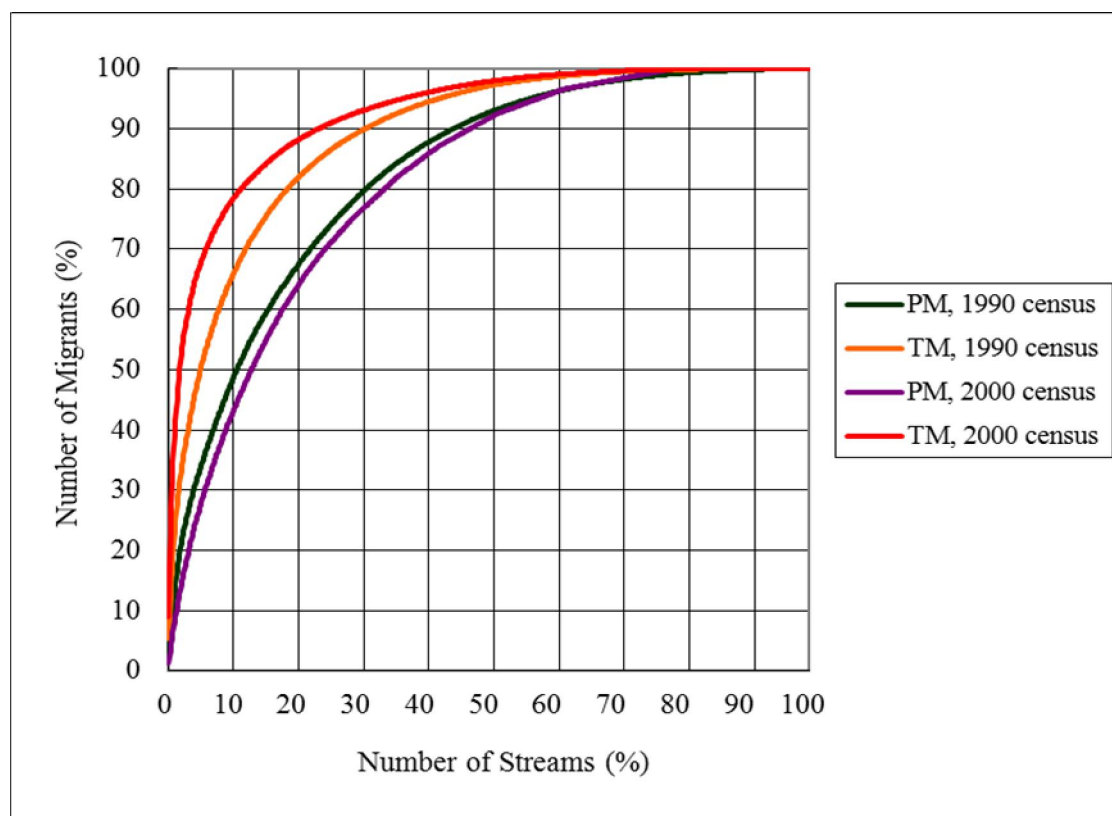
Source: 2000 census 0.1-percent inter-provincial migrant sample.

By the 2000 census, both permanent and temporary migration flows have changed. Permanent migration flows are even smaller and more dispersed, compared to those in the 1990 census (Figure 3.4). The 30 largest flows account for only 23.0 percent of the total permanent migration. And, the largest flow from Gansu to Xinjiang is only around 50,000, about one-third of the largest flow from Hebei to Tianjin (147,000) in the 1990 census. Despite the rapid economic development of the coastal provinces in the 1990s, the flows of permanent migrants to these provinces have not increased proportionally. On



the contrary, temporary migration flows are increasingly large and concentrated. Temporary migration flows in the 2000 census are much larger than those in the 1990 census. Five of them are more than one million and two are more than two million (from Hunan to Guangdong and Sichuan to Guangdong). The 30 largest flows account for 64 percent of the total temporary migration. Almost all the flows (26 out of 30) are toward the coastal provinces, especially Jiangsu, Shanghai, Zhejiang, Fujian and Guangdong, who enjoyed rapid economic growth in the 1990s (Table 3.3). The six largest flows are all towards Guangdong. Guangdong alone attracted 41 percent of the total temporary migrants (about 11 million) between 1995 and 2000. Figure 3.6 summarizes the spatial concentration of all permanent and temporary migration flows and their changes over time. Clearly, for both 1990 and 2000, temporary migration is more spatially concentrated than permanent migration. And, between the 1990 and 2000 censuses, temporary migration has become more concentrated while permanent migration has become more dispersed. As a result, the difference in spatial patterns between permanent and temporary migration flows has further enlarged, which suggests that the *hukou* control is still largely at work.

**Figure 3.6 Spatial concentration of inter-provincial migration flows, 1990 and 2000**



Notes: PM: permanent migration; TM: temporary migration. In the 1990 census, the numbers of migration streams are 763 and 707 for permanent migration and temporary migration, respectively. In the 2000 census, the numbers of streams are 602 and 634 for permanent migration and temporary migration, respectively.

### 3.3.2 Inter-regional migration

To further analyze migration flows among the three regions, Table 3.5 shows the proportions of intra-regional and inter-regional migration flows in the 1990 and 2000 censuses. The diagonal cells represent inter-provincial migration flows within the regions, and the off-diagonal cells represent flows across regions. Between the two censuses, for

both permanent and temporary migration, the shares of inter-regional migration have increased. Summing up the numbers of the off-diagonal cells, the share of inter-regional migration for permanent migration has increased from 58.0 percent in the 1990 census to 60.3 percent in the 2000 census. However, the share for temporary migration has increased considerably from 53.8 percent to 73.1 percent, which indicates that increasing proportions of temporary migrants than permanent migrants move across regions in the 2000 census. This again reflects that temporary migrants tend to travel longer distance than permanent migrants and that over time temporary migrants have moved longer and longer distances.

**Table 3.5 Inter-provincial migration within and across regions, 1990 and 2000**

Origin	Destination							
	Permanent migration				Temporary migration			
	Eastern	Central	Western	Total	Eastern	Central	Western	Total
<b>1990</b>								
Eastern	23.6	8.6	3.4	35.5	30.0	11.1	3.6	44.7
Central	24.7	9.2	3.7	37.6	19.3	8.2	3.6	31.1
Western	10.9	6.8	9.2	26.9	11.0	5.2	8.0	24.2
Total	59.2	24.5	16.3	100.0	60.2	24.5	15.3	100.0
<b>2000</b>								
Eastern	19.2	11.1	5.9	36.2	18.2	2.3	1.9	22.4
Central	20.1	9.9	5.7	35.6	44.5	3.3	3.0	50.8
Western	10.5	7.0	10.6	28.1	20.0	1.5	5.4	26.9
Total	49.8	28.0	22.2	100.0	82.7	7.0	10.2	100.0

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

The Eastern Region is the popular destination for both permanent and temporary

migration. However, there are changes between the two censuses. For permanent migration, the central-eastern flow (24.7 percent) and the eastern-eastern flow (23.6 percent) are the largest in the 1990 census. By the 2000 census, this pattern remains about the same, but the proportions decline to 20.1 percent and 19.2 percent respectively. As a result, the proportion of permanent migration towards the Eastern Region has declined from 59.2 percent to 49.8 percent. This is contrary to the trend for temporary migration. The flows towards the Eastern Region account for 60.2 percent of the total temporary migration in the 1990 census. This proportion increases to 82.7 percent in the 2000 census. Between the two censuses, the central-eastern and the western-eastern flows for temporary migration have greatly increased from 19.3 percent and 11.0 percent to 44.5 percent and 20.0 percent respectively. In short, the eastward movement of temporary migration is more prominent than permanent migration and the difference between them has increased over time.

### **3.3.3 Migration flows by types of origin and destination**

As mentioned earlier, the 1990 and 2000 censuses record migrants' origins and destinations using different categories, which presents a challenge to make direct comparisons between the two censuses. Here I focus more on comparing the difference between permanent and temporary migration and less on the changes between the two

censuses.

**Table 3.6 Inter-provincial migration by rural/urban origin and destination (%), 1990 and 2000**

Origin	Destination								
	1990*			2000					
				ru1**			ru2**		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Permanent migration									
Rural	24.7	15.0	39.6	28.9	21.3	50.2	24.7	25.4	50.2
Urban	25.1	35.3	60.4	13.5	36.4	49.8	8.3	41.5	49.8
Total	49.8	50.2	100.0	42.4	57.6	100.0	33.0	67.0	100.0
Temporary migration									
Rural	40.4	37.1	77.5	42.0	42.6	84.6	22.7	61.8	84.6
Urban	8.3	14.2	22.5	5.3	10.2	15.4	2.5	12.9	15.4
Total	48.7	51.3	100.0	47.3	52.7	100.0	25.2	74.8	100.0

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: \*: In the 1990 census, townships are considered rural origins and towns and cities are considered urban origins. Cities are considered urban destinations and counties are considered rural destinations. \*\*: Here ru1 and ru2 refer to the two sets of rural and urban definitions I made for the 2000 census. For both ru1 and ru2, townships and villagers' committees in towns are considered rural origins and residents' committees in towns and streets are urban origins. For ru1, cities are considered urban destinations and towns and counties are considered rural destinations. For ru2, towns and cities are considered urban destinations and counties are considered rural destination.

Using the rural and urban definitions I made earlier for the two censuses, Table 3.6 shows the proportions of inter-provincial migration by types of origin and destination. In the 1990 census, the prominent flows among permanent migration are urban-urban (35.3 percent), followed by urban-rural (25.1 percent) and rural-rural (24.7 percent) flows. Rural-urban flow accounts for only 15.0 percent of permanent migration, while the

corresponding proportion for temporary migration is 37.1 percent. This suggests that it is difficult for rural Chinese to attain urban *hukou*, whereas it is relatively easier for other types of migrants, especially urban-urban migrants, to obtain *hukou* in their respective destinations. As a result, temporary migrants are likely from rural areas (77.5 percent) and permanent migrants are likely from urban areas (60.4 percent).

In the 2000 census, the situation is quite similar. For permanent migration, urban-urban flow (36.4 percent for ru1 and 41.5 percent for ru2) is the largest, whereas its share for temporary migration is much smaller (10.2 percent for ru1 and 12.9 percent for ru2). On the other hand, rural-urban flow is much more prominent in temporary migration (42.6 percent for ru1 and 61.8 percent for ru2) than in permanent migration (21.3 percent for ru1 and 25.4 percent for ru2). The above suggests that rural-urban *hukou* change is still much more difficult than urban-urban *hukou* change, and this has not changed despite the *hukou* reforms in the 1990s. Table 3.7 summarizes the degree of difficulty in obtaining *hukou* change, broken down by rural and urban origins and destinations.

**Table 3.7 Degree of difficulty in *hukou* change by origin and destination**

Origin	Destination	
	Rural	Urban
Rural	Relatively easy	Difficult
Urban	Rare	Relatively easy

### 3.4 Summary

In this chapter, I have examined the magnitude and spatial patterns of permanent and temporary migration and their changes between the 1990 and 2000 censuses. The analysis focuses on inter-provincial migration, but also includes inter-county, inter-regional and rural-urban migration.

Between the two censuses, the gaps between permanent and temporary migration further enlarged. Among inter-county migrants, the number of temporary migration has more than tripled, while the size of permanent migration has remained about the same. The pattern is similar for inter-provincial migration, especially rural-urban migration. As a result, the share of temporary migration has increased considerably and the share of permanent migration has dropped sharply. These results suggest that the *hukou* reforms have not boosted permanent migration.

The relatively developed provinces are popular destinations for both permanent and temporary migration, but temporary migration is much more spatially concentrated than permanent migration and the concentration has intensified over time. Guangdong alone attracts 41 percent of inter-provincial temporary migrants in the 2000 census. Also, temporary migrants on average move longer distance than permanent migrants. More importantly, over time temporary migrants have traveled longer and longer distances. This may indicate that migration maturation is at work to lower the barriers for migration.

Looking at migration flows by types of origin and destination, urban-urban and rural-rural flows are most dominant among permanent migrants, whereas rural-urban flow is the overwhelming flow among temporary migrants. And, the above pattern remains largely the same between the two censuses. These suggest that rural-urban *hukou* change is more difficult than rural-rural and urban-urban *hukou* change and that *hukou* reforms have not made rural-urban *hukou* change easier.



## **Chapter 4**

### **Migration Reason and Selectivity of Permanent Migration and Temporary Migration**

Migration reason and the selectivity of migrants are key elements for understanding migration process. The Chinese censuses provide information on not only the primary motivation for migration, but also the channels through which migration is regulated (Fan 1999; Liu and Chan 2001). The characteristics and selectivity of migrants are also very important since they have direct impacts on migrants' lives, such as their occupational attainment and income, in the destination. In this chapter, I will examine the differentials in migration reason and selectivity between permanent migrants and temporary migrants as well as how the gaps between them have changed over time. Statistical models are also estimated to evaluate the relatively importance of factors that contribute to the differentials between these two types of migrants<sup>5</sup>.

#### **4.1 Changes in migration reason**

A highly valuable feature of China's 1990 and 2000 censuses is a question asking migrants their primary reason of migration. The 1990 census has nine options for that question: "job transfer," "job assignment," "industry/business," "study/training,"

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<sup>5</sup> A significant proportion of this chapter has been published in Sun and Fan (2011).

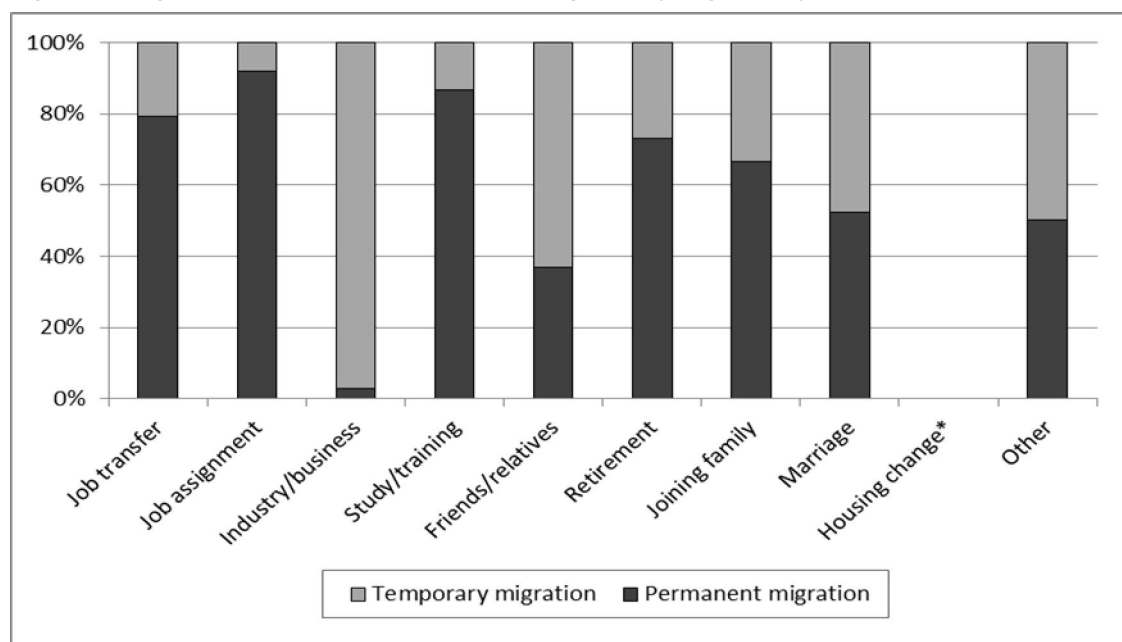
“friends/relatives,” “retirement,” “joining family,” “marriage,” and “other”. The 2000 census drops “retirement” and adds “housing change” as a migration reason to reflect the increased residential mobility as a result of the housing reform since the late 1980s. Table 4.1 describes the definitions of the above options. These migration reasons encompass a range of interpretations, including motives for migration (e.g., to pursue education), means of migration (e.g., to join friends or relatives), circumstances that result in migration (e.g., marriage), migrants’ plan (e.g., to retire; to find industrial or business jobs), and the degree of state involvement (e.g., job assignment by the state). In general, “job transfer,” “job assignment,” “joining family (as a result of job transfer)” and “study/training” are considered forms of migration sponsored, approved, or planned by the state. “Industry/business,” “friends/relatives” and “marriage” are generally considered self-initiated forms of migration not within state plans (Fan 1999; Liu and Chan 2001). State-sponsored migration is more likely to be associated with *hukou* change and thus permanent migration, whereas self-initiated migration is less likely to be granted *hukou* status in the destination and thus becomes temporary migration (Figures 4.1 and 4.2). Between the 1990 and 2000 censuses, this observation has not changed much except that state-sponsored job transfer and joining family are no longer highly associated with permanent migration. As China’s economy becomes more marketized, state sponsored job transfer and its associated family movement have declined in importance.

**Table 4.1 Census migration reasons and their definitions**

Migration reason	Definition
Job transfer	Job change sponsored by the government, including demobilization from the military
Job assignment	Job assignment by the government and recruitment of graduates from schools
Industry/business	Moving to seek jobs in industrial or commercial or service sectors
Study/training	Moving to pursue education or attend training or apprentice programs organized by local work units
Friends/relatives	Moving to seek support of relatives and friends
Joining family	Family members following the job transfer of cadres and workers
Marriage	Moving to live with spouse after marriage
Retirement	Retirement or resignation
Housing change	Moving due to house demolition or changing house
Other	All other reasons

Sources: NSB (2002: 1898); NSB (1993: 513-514, 558). See also Fan (2008: 55).

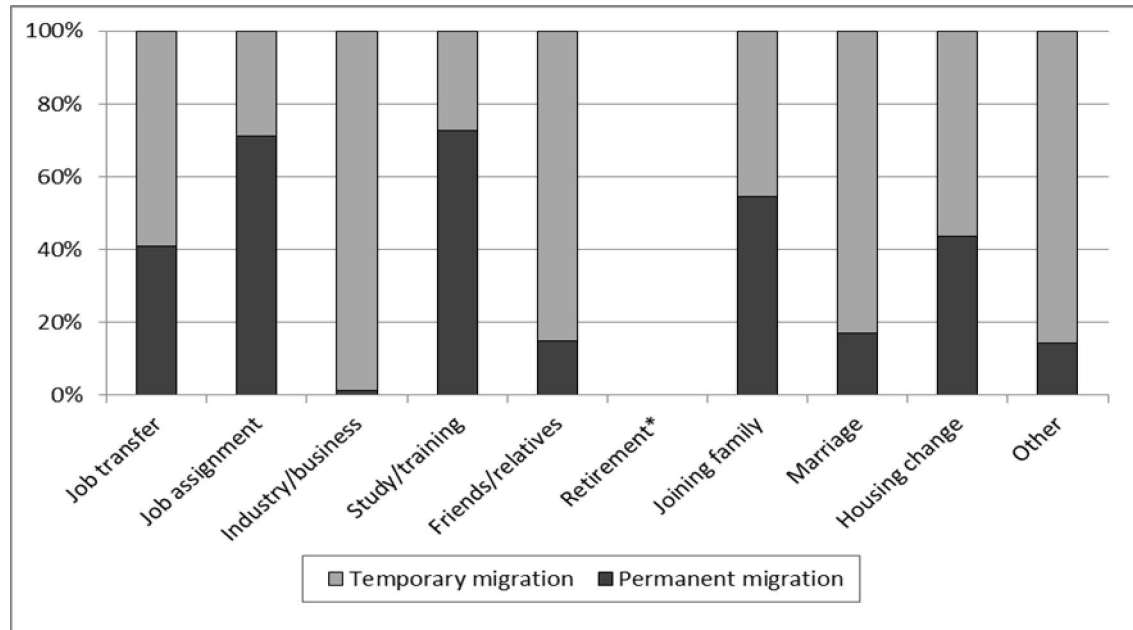
**Figure 4.1 Migration reasons of inter-provincial migrants by migration type, 1990**



Source: 1990 census one-percent sample.

Note: \*: "Housing change" did not appear as a migration reason in the 1990 census.

**Figure 4.2 Migration reasons of inter-provincial migrants by migration type, 2000**



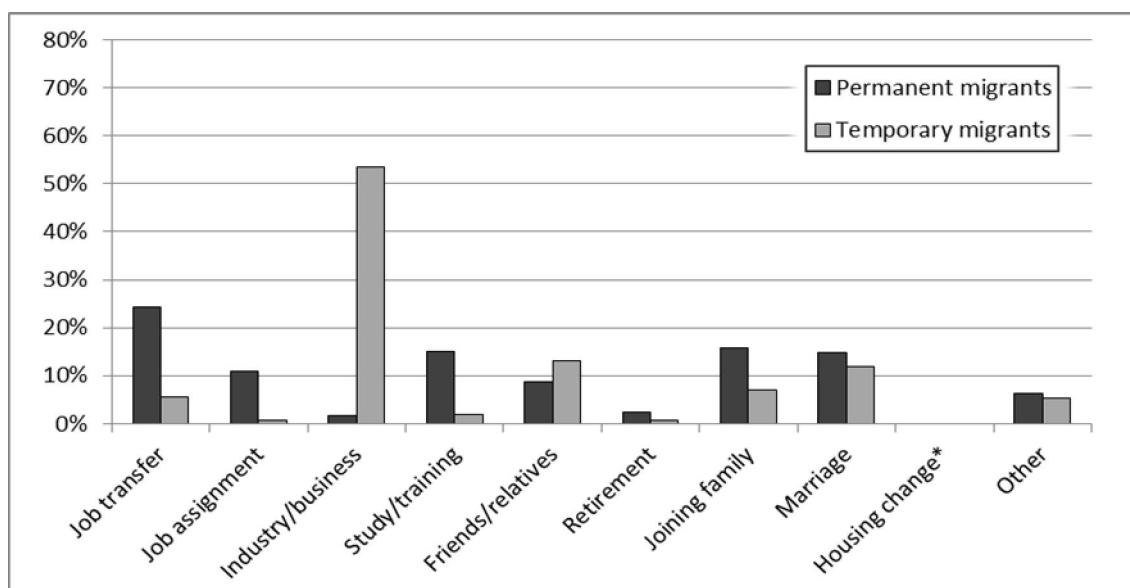
Source: 2000 census 0.1-percent inter-provincial migrant sample.

Note: \*: "Retirement" was dropped as a migration reason in the 2000 census.

Permanent and temporary migrants differ in their migration reasons. Figures 4.3 and 4.4 show the differentials among inter-provincial migrants and how they have changed. For 1990, "job transfer" (24.3 percent), "joining family" (15.7 percent), "study/training" (15.1 percent), "marriage" (14.8 percent) and "job assignment" (10.8 percent) are the leading reasons for permanent migrants. All except "marriage" are state-sponsored reasons. Studies have shown that permanent migrants for marriage are mostly those who move to rural areas, where obtaining a local *hukou* is much easier than in urban areas (Fan and Huang 1998; Fan and Li 2002). Among temporary migrants,

“industry/business” is the dominant reason (53.4 percent), followed by “friends/relatives” (13.1 percent) and “marriage” (11.8 percent). Clearly, the vast majority of temporary migrants undertake self-initiated rather than state-sponsored migration. And, finding jobs in the industrial or business sectors – referring primarily to commerce and services – is the main reason for temporary migration.

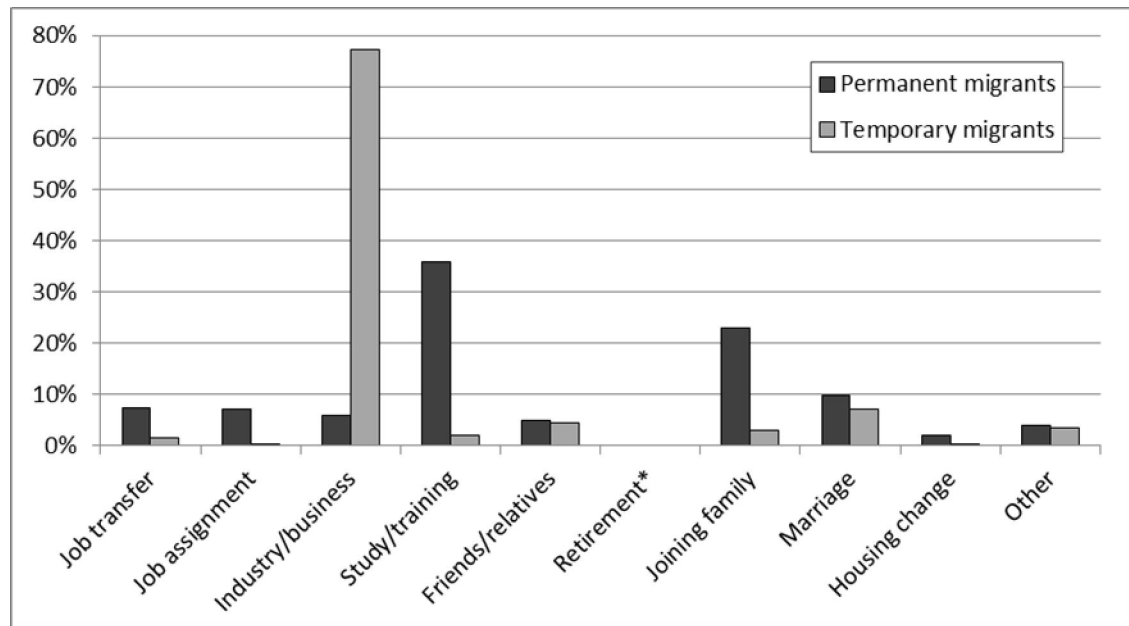
**Figure 4.3 Migration reasons of inter-provincial permanent and temporary migrants, 1990**



Source: 1990 census one-percent sample.

Note: \*: “Housing change” did not appear as a migration reason in the 1990 census. See also Sun and Fan (2011).

**Figure 4.4 Migration reasons of inter-provincial permanent and temporary migrants, 2000**



Source: 2000 census 0.1-percent inter-provincial migrant sample.

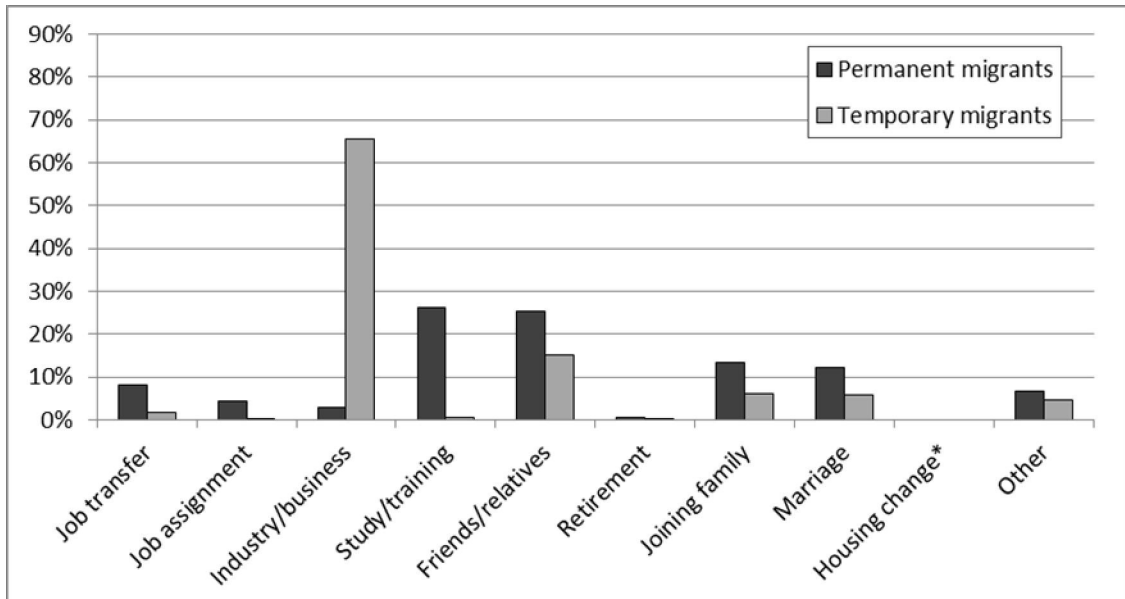
Note: \*: "Retirement" was dropped as a migration reason in the 2000 census. See also Sun and Fan (2011).

For both permanent and temporary migrants, there are considerable changes in migration reason between the two censuses. For the 2000 census, "study/training" (35.9 percent) and "marriage" (23.0 percent) are now leading migration reasons for permanent migrants. Admission to certain schools – such as specialized secondary schools or higher-education institutions (Yu 2002: 52) – has become a primary means of changing one's *hukou*. And, the relative importance of "marriage" for permanent migration has increased. On the other hand, central-planning types of reason, namely "job transfer" and "job assignment," are no longer important means of permanent migration. These changes suggest that the traditional means by which migrants change their *hukou* – mainly via

state employment – are increasingly giving way to processes that involve individual efforts. “Study/training,” in particular, highlights education, skills, and success. Among temporary migrants, the dominance of “industry/business” has increased further, to 77.4 percent, in 2000. No other reasons account for more than 8 percent of temporary migrants. Finding industrial, commerce and services jobs, therefore, continues to be the key motive for temporary migration.

Among rural-urban migrants (Figures 4.5 and 4.6), the dominance of leading reasons is even more pronounced, the gaps between permanent and temporary migrants are wider, and over time the gaps are increasing. For the sake of simplicity, Figure 4.6 shows only ru1, which has a very similar pattern to ru2. For 1990, “study/training” (26.3 percent) is the leading reason of permanent migration, followed by “friends/relatives” (25.4 percent), “joining family” (13.3 percent) and “marriage” (12.3 percent). By 2000, “study/training” (66.9 percent) has become the dominant reason of rural-urban permanent migration. Most of these migrants are university students, whose success in gaining university admission is being rewarded by an urban hukou, and most of whom would continue to live and work in cities upon graduation. According to the 1990 census, 65.7 percent of temporary migrants move for “industry/business” reason. By 2000 the proportion has increased to 82.1 percent.

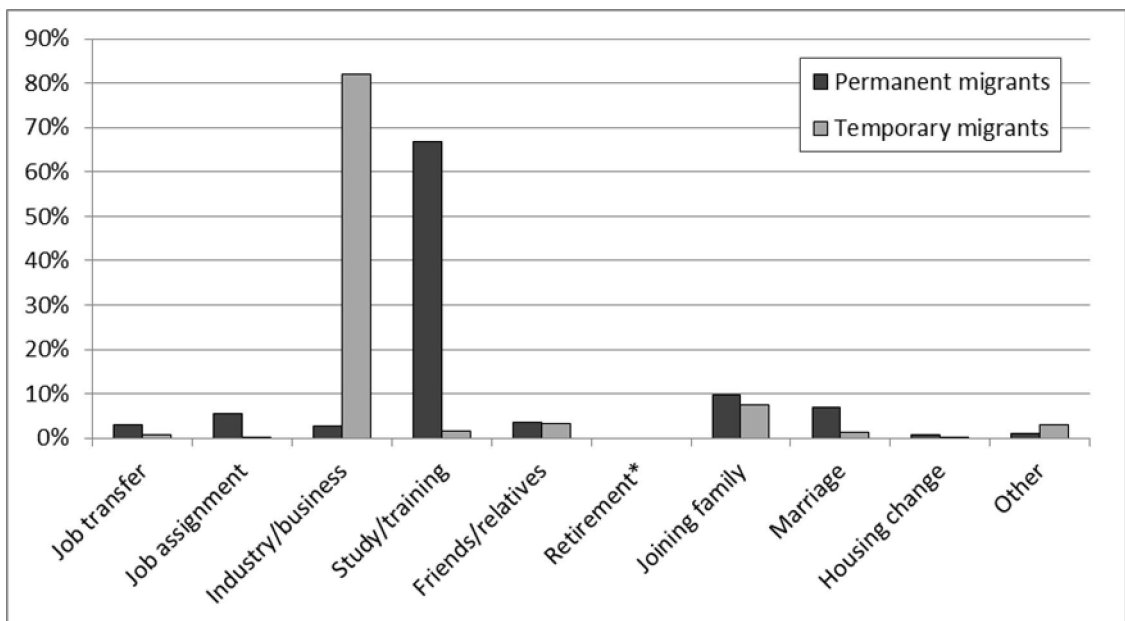
**Figure 4.5 Migration reasons of inter-provincial rural-urban migrants, 1990.**



Source: 1990 census one-percent sample.

Note: \*: "Housing change" did not appear as a migration reason in the 1990 census. See also Sun and Fan (2011).

**Figure 4.6 Migration reasons of inter-provincial rural-urban 1 (ru1) migrants, 2000.**



Source: 2000 census 0.1-percent inter-provincial migrant sample.

Note: \*: "Retirement" was dropped as a migration reason in the 2000 census. See also Sun and Fan (2011).



In summary, the differentials in migration reason between permanent and temporary migrants are large and have increased over time. The gaps and rates of widening are even more pronounced among rural-urban migrants. These findings reinforce the observation that *hukou* reforms have benefited only migrants that are already successful, namely those who have high levels of education and skills, and that the vast majority of rural migrants continue to be denied urban *hukou*.

#### **4.2 Changes in selectivity**

Migration selectivity and how it has changed can shed light on not only the impacts of *hukou* reforms but also how maturation of migration streams has shaped the composition of migrants. If *hukou* reforms have made permanent migration easier, then I would expect the differentials between permanent migrants and temporary migrants to narrow. If over time a larger spectrum of individuals have joined temporary migration, then I would expect the differentials to increase. Tables 4.2 and 4.3 summarize the differentials in characteristics between permanent and temporary migrants, respectively for all inter-provincial migrants and inter-provincial rural-urban migrants.

## *Age*

In general, migrants are younger than non-migrants. Between 1990 and 2000, the age gap between migrants and the general (5+) population has widened (Table 4.2). The mean ages of migrants and the general population are respectively 27.4 and 31.3 in the 1990 census, and 26.9 and 33.7 in the 2000 census. Over time, not only has the mean age of migrants declined, but their proportion in the 15-39 age group has increased – from 77.4 percent to 85.3 percent. This suggests that maturation of migration streams has enabled an increasing number of young people to join earlier migrants.

Based on the 1990 census, the mean ages of permanent and temporary migrants are very similar, respectively 27.2 and 27.6. But in the 2000 census, the mean age of permanent migrants declines to 25.2, resulting in a two-year gap with that of temporary migrants (27.2). Permanent migrants' decline in age likely reflects the increased prominence of “study/training” as a migration reason, an observation I discussed earlier (see also Fan 2008: 67). Among rural-urban migrants, likewise, the age gap between permanent and temporary migrants has widened – from 1.9 years in 1990 to 4.8 years (ru1) and 3.7 years (ru2) in 2000 (Table 4.3). And, between the two censuses, the proportion of permanent migrants aged 15-19 increases from 17.1 percent to 33.5 percent (ru1) and 30.1 percent (ru2). Again, this change is largely due to the increased importance of “study/training” as a migration reason for permanent migrants.

**Table 4.2 Characteristics of inter-provincial migrants, 1990 and 2000.**

	1990				2000			
	5+ population	Permanent migrants	Temporary migrants	All migrants	5+ population	Permanent migrants	Temporary migrants	All migrants
<b>Mean Age</b>	31.3	27.2	27.6	27.4	33.7	25.2	27.2	26.9
<b>Age Structure (%)</b>								
15-19	11.8	11.1	12.9	12.0	8.8	18.8	15.8	16.2
20-39	39.5	65.1	65.7	65.4	38.2	66.0	69.5	69.1
<b>Sex Ratio</b>	106	128	156	142	106	106	110	110
<b>Education (6+) (%)</b>								
Junior secondary and below	89.4	53.4	87.3	71.4	84.2	44.1	82.6	77.5
Senior secondary	9.0	21.7	10.0	15.5	12.0	15.6	13.5	13.8
College and above	1.6	24.9	2.7	13.1	3.8	40.4	3.9	8.7
<b>Origin (Townships or villagers' committees) (%)</b>		39.6	77.5	59.8		50.2	84.6	80.0
<b>Destination (Cities) (%)</b>		50.2	51.3	50.8		*57.6	*52.7	*53.4

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Note: \*: Restricted definition of urban (see Chapter 3, p. 40-42).

**Table 4.3 Characteristics of inter-provincial rural-urban migrants, 1990 and 2000.**

	1990			2000					
	Rural-urban			Rural-urban 1 (ru1)*			Rural-urban 2 (ru2)*		
	PM	TM	All	PM	TM	All	PM	TM	All
<b>Mean Age</b>	25.2	27.1	26.6	22.2	27.0	26.6	22.9	26.6	26.4
<b>Age Structure (%)</b>									
15-19	17.1	13.3	14.3	33.5	16.0	17.3	30.1	17.1	17.8
20-39	58.9	67.4	65.2	57.0	70.0	69.1	58.6	70.6	69.9
<b>Sex Ratio</b>	115	201	172	185	125	129	160	112	114
<b>Education (6+) (%)</b>									
Junior secondary and below	59.1	91.2	82.8	20.0	86.4	81.6	28.0	87.3	83.8
Senior secondary	17.1	8.6	10.8	20.1	12.3	12.8	19.0	11.4	11.9
College and above	23.8	0.2	6.4	59.9	1.3	5.4	52.1	1.2	4.2

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: PM: permanent migrants; TM: temporary migrants. \*: See chapter 3 (p.40-42) for definitions.

### ***Sex ratio***

The conventional wisdom about gender balance in migration is that men have greater migration propensity than women. Indeed, the 1990 census documents a migrant sex ratio of 142, much higher than the sex ratio of 106 for the general population (Table 4.2). Temporary migrants are especially sex-selective, marked by a sex ratio of 156. Since many temporary migrants in the 1980s were among the first in their communities to leave home, the high sex ratio supports the notion that men are more likely than women to be pioneer migrants. Notably, from 1990 to 2000, the sex ratio of migrants has declined sharply, indicating an increased number of women participating in migration and a rise in women's mobility more so than that of men (see also Fan 2008: 67). This change points to declining selectivity of migration. The decline is especially notable among temporary migrants, whose sex ratio drops by 46 – from 156 to 110, whereas the change for permanent migrants is 22 – from 128 to 106. Over time, therefore, the decline in sex-selectivity is more pronounced among temporary migrants than permanent migrants.

Among rural-urban migrants, however, the sex ratio of permanent migrants has increased, from 115 in 1990 to 185 (ru1) and 160 (ru2) in 2000 (Table 4.3). The increased dominance of men among rural-urban permanent migrants, again, reflects the prominence of “study/training” as a migration reason, as well as the persistent patriarchal tradition in rural areas that prioritizes boys' access to education over that of girls. On the other hand,

among rural-urban temporary migrants, the sex ratio has dropped from 201 in 1990 to 125 (ru1) and 112 (ru2) in 2000, pointing to a massive increase in rural women's migration propensity.

### ***Educational attainment***

Migrants tend to be positively selected in terms of educational attainment. For both 1990 and 2000, the proportion of migrants with senior secondary and above level of education (i.e., sum of "senior secondary" and "college and above") is higher than that of the general population (Table 4.2). Yet, between the two censuses, the proportion for migrants has dropped – from 28.6 percent to 22.5 percent – while that of the general population has improved – from 10.6 percent to 15.8 percent. The former appears to support the notion that over time migration has become less selective.

A closer look at the data reveals a paradoxical pattern – the proportion of all migrants with senior secondary and above level has declined, but the proportions for both permanent and temporary migrants have in fact increased, from respectively 46.6 percent to 56.0 percent and 12.7 percent to 17.4 percent. This is because temporary migrants, whose educational attainment is considerably lower than that of permanent migrants, have by 2000 increased their volume and share by many folds (see chapter 3 and Table 3.1), and are dominating and depressing the overall educational attainment of migrants

(see also Fan 2008: 67). Between 1990 and 2000, while the educational attainment of all three groups – the general population, permanent migrants, and temporary migrants – has increased, the improvement is the least among temporary migrants and the most among permanent migrants. Specifically, for senior secondary and above, the improvement is 9.4 percentage points for permanent migrants, 5.2 percentage points for the general population, and 4.7 percentage points for temporary migrants. Notably, the proportion of permanent migrants with college and above education increases by 15.5 percentage points (from 24.9 percent to 40.4 percent) while the increase for the general population is only 2.2 percentage points (from 1.6 percent to 3.8 percent) and that for temporary migrants 1.2 percentage points (from 2.7 percent to 3.9 percent). The above shows that over time permanent migrants are increasingly selected and temporary migrants less selected, resulting in a widening gap between them.

Among rural-urban migrants (Table 4.3), the gaps in educational attainment between permanent and temporary migrants are even larger and are widening over time. The proportion of permanent migrants with senior secondary and above education has more than doubled from 30.9 percent in 1990 to 79.0 percent (ru1) and 71.1 percent (ru2) in 2000, whereas the increase for temporary migrants is less than five percentage points, from 8.8 percent to 13.6 percent (ru1) and 12.6 percent (ru2). The largest gap is at the college and above level, which in 2000 accounted for more than half – 58.9 percent (ru1)

and 52.1 percent (ru2) – of permanent migrants but only 1.3 percent (ru1) and 1.2 percent (ru2) of temporary migrants. In summary, the educational selectivity of temporary migrants has declined relative to permanent migrants and the decline is especially pronounced among rural-urban migrants.

### ***Origins and destinations***

In 1990 and 2000, respectively 77.5 percent and 84.6 percent of temporary migrants were from rural origins – townships or villagers’ committees – compared to 39.6 percent and 50.2 percent of permanent migrants (Table 4.2). The proportion of all migrants that are from rural origins increased from 59.8 percent in 1990 to 80.0 percent in 2000.

The majority of inter-provincial migrants move to urban areas. In 1990, the differentials in destination between permanent and temporary migrants were small. In 2000, respectively 57.6 percent of permanent migrants and 52.7 percent of temporary migrants moved to cities (restrictive definition of urban areas, see chapter 3, p.39-40), and 67.0 percent of permanent migrants and 74.8 percent of temporary migrants moved to cities or towns (relaxed definition of urban areas, see chapter 3, p.40-42; not shown in Table 4.2). These statistics suggest that while the majority of temporary migrants move to cities, a significant proportion of them move to towns.



Although the above does not show clear trends of origin and destination differentials between permanent and temporary migrants, it highlights rural origins as a prominent and persistent characteristic of temporary migrants and urban areas as increasingly popular destinations for both permanent and temporary migrants.

#### **4.3 Modeling permanent and temporary migration**

The above analyses show that in terms of migration reason and socioeconomic characteristics, the gaps between permanent and temporary migrants have widened over time. In order to assess the relative importance of factors that contribute to the differentials between these two types of migrants, I estimate logistic regression models that predict the likelihood of permanent migration versus temporary migration. The dependent variable is coded 1 for permanent migrants and 0 for temporary migrants. My selection of independent variables is informed by the descriptive analysis described earlier, and I estimate the 1990 and 2000 models separately to show how the effects of these independent variables have changed over time. The modeling analysis focuses on migrants aged 15 and over. This is because migrants younger than 15 years old generally migrate with their parents and are not in the work force. At the same time migrants aged 15 and above are the bulk of migrants, who account for 91.8 percent of the total migrants in the 1990 census and 95.1 percent in the 2000 census.

I estimate models for both inter-provincial migration and inter-provincial rural-urban migration (Tables 4.4 and 4.5). For simplicity's sake, I refer to the former as all-migrant models and the latter as rural-urban models. For the all-migrant models, I include five sets of independent variables – GENDER, EDUCATION, MIGRATION REASON, ORIGIN, and DESTINATION. For the rural-urban models, I omit ORIGIN and DESTINATION. The GENDER variable is coded 1 for men and 0 for women. EDUCATION is represented by two dummy variables: SENIOR SECONDARY, and COLLEGE AND ABOVE; with JUNIOR SECONDARY AND BELOW as the reference group. For migration reason, I choose OTHER as the reference group. I combine JOB TRANSFER, JOB ASSIGNMENT AND JOINING FAMILY because of their association with state-sponsored moves. Thus, there are five dummy variables for migration reason. Finally, ORIGIN and DESTINATION are coded 1 for cities and 0 for others.

Both the all-migrant and rural-urban models are highly significant with high percentages of correctly classified observations – ranging from 79.7 percent to 97.1 percent. The pseudo R-squares ranging from 0.40 to 0.67 are reasonably high. Most coefficients are significant at 0.05 or higher level and have the expected sign. Overall the results support the observations made earlier.

**Table 4.4 Logistic regression on inter-provincial migration (15+), 1990 and 2000 (all-migrant models)**

Independent variable	1990			2000		
	Standardized coefficient	Z	Odds Ratio	Standardized Coefficient	Z	Odds Ratio
<b>GENDER</b> (Male=1)	0.016	4.19***	1.084	0.103	8.67***	1.598
<b>EDUCATION</b> (reference: JUNIOR SECONDARY AND BELOW)						
SENIOR SECONDARY	0.116	31.37***	2.158	0.072	6.42***	1.596
COLLEGE AND ABOVE	0.214	37.69***	4.543	0.188	17.95***	4.442
<b>MIGRATION REASON</b> (reference: OTHER)						
JOB TRANSFER/JOB ASSIGNMENT/ JOINING FAMILY	0.119	22.12***	1.918	0.057	5.06***	1.605
INDUSTRY/BUSINESS	-0.718	-90.97***	0.022	-0.575	-28.37***	0.055
STUDY/TRAINING	0.058	10.10***	1.657	0.192	16.15***	5.769
MARRIAGE	-0.020	-4.39***	0.870	0.191	19.13***	6.417
FRIENDS/RELATIVES	-0.085	-21.76***	0.491	-0.025	-2.47*	0.744
<b>ORIGIN</b> (City =1)	0.056	14.08***	1.366	0.070	7.83***	1.614
<b>DESTINATION</b> (City=1)	-0.092	-24.53***	0.634	-0.147	-11.29***	0.511
Model chi-square	5863.50			10821.82		
Pseudo R-square	0.40			0.49		
Percentage correctly predicted	79.70			91.30		
Number of cases	105890			28592		
Degree of freedom	10			10		

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: Dependent variable: 0: temporary migrants; 1: permanent migrants. Significance levels: \*: 0.05; \*\*: 0.01; \*\*\*: 0.001

**Table 4.5 Logistic regression on inter-provincial rural-urban migration (15+), 1990 and 2000 (Rural-urban models)**

Independent Variable	1990			2000					
	Rural-urban			Rural-urban 1			Rural-urban 2		
	Standardized Coefficient	Z	Odds Ratio	Standardized Coefficient	Z	Odds Ratio	Standardized Coefficient	Z	Odds Ratio
<b>GENDER</b> (Male=1)	0.010	1.35	1.057	0.089	3.44**	1.579	0.078	3.15**	1.430
<b>EDUCATION</b> (reference: JUNIOR SECONDARY AND BELOW)									
SENIOR SECONDARY	0.103	16.36***	2.432	0.203	9.63***	4.549	0.174	8.90***	3.343
COLLEGE AND ABOVE	0.342	18.98***	43.050	0.262	15.45***	17.552	0.252	16.77***	16.372
<b>MIGRATION REASON</b> (reference: OTHER)									
JOB TRANSFER/JOB ASSIGNMENT/ JOINING FAMILY	0.068	8.99***	1.880	0.141	4.64***	4.503	0.126	4.93***	3.514
INDUSTRY/BUSINESS	-0.670	-41.95***	0.024	-0.430	-7.42***	0.064	-0.457	-9.73***	0.064
STUDY/TRAINING	0.105	8.45***	2.942	0.270	8.65***	17.168	0.233	9.53***	12.526
MARRIAGE	0.023	3.22**	1.267	0.140	7.91***	15.972	0.167	10.46***	16.507
FRIENDS/RELATIVES	0.001	0.08	1.005	0.072	2.98**	2.970	0.062	3.03**	2.410
Model chi-square	14704.85			3897.16			4574.63		
Pseudo R-square	0.46			0.67			0.63		
Percentage correctly predicted	83.60			97.10			97.10		
Number of cases	28392			11400			16423		
Degree of freedom	8			8			8		

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: Dependent variable: 0: temporary migrants; 1: permanent migrants. Significance levels: \*: 0.05; \*\*: 0.01; \*\*\*: 0.001

See Chapter 3, p.40-42 for the definitions of "rural-urban 1" and "rural-urban 2".

For the all-migrant models (Table 4.4), GENDER is positive and significant and its odds ratio in the 2000 model (1.60) is larger than that in the 1990 model (1.08). These suggest that men are more likely to be permanent migrants than women and gender selectivity for permanent migration has increased over time.

For EDUCATION, both SENIOR SECONDARY and COLLEGE AND ABOVE have positive and significant coefficients. The odds ratios of COLLEGE AND ABOVE (4.54 and 4.44) are higher than that of SENIOR SECONDARY (2.16 and 1.60). This suggests that college-level education is especially important for increasing the likelihood of permanent migration.

For MIGRATION REASON, as expected, JOB TRANSFER/JOB ASSIGNMENT/JOINING FAMILY and STUDY/TRAINING are positively and significantly related to permanent migration. Between 1990 and 2000, the odds ratio of STUDY/TRAINING increased from 1.66 to 5.77, supporting the observation that the connection between higher education and permanent migration is stronger over time. The coefficient of MARRIAGE changed sign, from negative in 1990 to positive in 2000. It is unclear what the sign-change means, but the positive sign in 2000 highlights marriage as a factor of *hukou* change. This may be related to marriage migrants to rural destinations, where the control over *hukou* is relatively relaxed. At the same time, *hukou* reforms have made it easier for rural-urban marriage migrants to obtain urban *hukou* (see below). In

both cases, migrants for marriage are more likely than OTHER migrants to be permanent migrants. On the other hand, INDUSTRY/BUSINESS is negative and significant with very small odds ratio, which means that self-initiated economic migrants are much less likely to be permanent migrants, compared to OTHER migrants. Moving for seeking jobs in industrial, commercial or service sectors decreased the odds of being permanent migrants by 97.8 percent in 1990 and by 94.5 percent in 2000.

Not surprisingly, the coefficients for ORIGIN are positive and those for DESTINATION are negative and all are significant. That is, migrants from city origins are more likely than those from towns and townships to be permanent migrants and migrants moving to cities are more likely than those to other destinations to be temporary migrants.

In addition to the absolute effect of an independent variable net of other independent variables, I am also interested in assessing the relative importance of independent variables in explaining the variation in the dependent variable and the changes over time. To that effect, I used both the information theoretic approach (Table 4.6, see Appendix A for calculation method) and the standardized coefficients (Table 4.4) to evaluate the relative importance of independent variables. The information theory approach facilitates the decomposition of the explained variation in the dependent variable into the contributions of independent variables. Not only is this approach

conceptually attractive, it also provides a desirable way to interpret dummy variables. There is a debate on whether it is appropriate to standardize dummy variables because with only two values, the standard deviation of dummy variable is not as intuitively meaningful as that of numerical variable (Pampel 2000: 32). A similar issue exists for categorical variables that have more than two categories and are represented by a set of dummy variables. The coefficients of the set of dummy variables must be interpreted relative to the reference group. When we change the reference group, the coefficients may change, although they still convey the same information. Thus, the interpretation of the standardized coefficients of these dummy variables is not straightforward. Using the information theory approach avoids the above problems because it does not rely on the standard deviation of variables. Also, categorical variables can be treated as a single variable and their overall relative importance can be calculated. Therefore, I use the information theory approach to evaluate the relative importance of independent variables and treat categorical variables EDUCATION and MIGRATION REASON as single variables. I use the traditional standardized coefficients to evaluate the strength of the set of dummy variables of a categorical variable.

Table 4.6 shows the average contributions of independent variables to  $R_L^2$  (pseudo R-squares) in the all-migrant models, which is equal to the entropy measure of explained variation used in information theory (Haberman 1982). Clearly, migration

reason is the most important variable in predicting permanent migration versus temporary migration outcome, followed by migrants' educational attainment, origin, destination and gender. There is no change in the order of variables between 1990 and 2000. On average, variation in migration reason can explain more than 70 percent of the explained variation in the dependent variable and variation in educational attainment can explain about 17 percent to 19 percent of the explained variation in the dependent variable. The contributions of these two variables have slightly increased between the 1990 and 2000 censuses, while the contributions of the other three variables are relatively small (below 10 percent) and have declined over time. These suggest that migrants' reason for migration and educational attainment largely affect their chances of obtaining *hukou* in the destination.

**Table 4.6 Relative importance of independent variables in the all-migrant models (Table 4.4):**  
information theory approach

Independent variables	1990		2000	
	Average contribution	%	Average contribution	%
<b>Gender</b>	0.0029	0.72	0.0031	0.63
<b>Education</b>	0.0693	17.27	0.0941	19.29
<b>Migration reason</b>	0.2861	71.30	0.3571	73.20
<b>Origin</b>	0.0388	9.66	0.0292	5.98
<b>Destination</b>	0.0041	1.03	0.0044	0.90
<b>Total <math>R_L^2</math> (pseudo R-squares)</b>	0.4012	100.00	0.4878	100.00

Standardized coefficients show the relative strength of the set of dummy variables



of categorical variables. For both 1990 and 2000, INDUSTRY/BUSINESS is the most important predictor in migration reason. For 1990, the next two predictors are, in descending order, JOB TRANSFER/JOB ASSIGNMENT/JOINING FAMILY, and FRIENDS/RELATIVES. For 2000, the next two predictors are STUDY/TRAINING and MARRIAGE. These changes suggest that state-allocated jobs as a pathway toward *hukou* change have declined in importance and marriage migration is increasingly closely tied to permanent migration. For variable EDUCATION, COLLEGE AND ABOVE has larger standardized coefficients than SENIOR SECONDARY in both the 1990 and 2000 model, which is consistent with the earlier descriptive observation that high education is strongly associated with permanent migration.

**Table 4.7 Relative importance of independent variables in the rural-urban models (Table 4.5):**  
information theory approach

	1990		2000: Rural-urban 1		2000: Rural-urban 2	
	Average contribution	%	Average contribution	%	Average contribution	%
<b>Gender</b>	0.0100	2.18	0.0036	0.54	0.0031	0.49
<b>Education</b>	0.1110	24.23	0.2531	37.65	0.2167	34.33
<b>Migration reason</b>	0.3372	73.59	0.4154	61.81	0.4114	65.18
<b>Total <math>R_L^2</math> (pseudo R-squares)</b>	0.4582	100.00	0.6721	100.00	0.6312	100.00

The overall results for the rural-urban models (Tables 4.5 and 4.7) are similar to the all-migrant models. For the 1990 model and the two 2000 models (ru1 and ru2),

MIGRATION REASON is the most important variable in explaining the variation in the dependent variable, followed by EDUCATION and GENDER (Table 4.7). The larger contributions of EDUCATION, compared to the all-migrant models (Table 4.6), suggest that the relationship between education and permanent migration is stronger for rural-urban migration than overall migration. The increasing contribution of EDUCATION and the increasing size of the coefficient for STUDY/TRAINING, in particular, highlight the strong and increasing connection between higher education and urban *hukou*. The coefficient for MARRIAGE has also increased considerably between 1990 and 2000, suggesting that over time the barriers for rural-urban marriage migrants to obtain *hukou* have become lower. Unlike in the all-migrant models, in the rural-urban models the coefficient for JOB TRANSFER/JOB ASSIGNMENT/JOINING FAMILY has increased in size between 1990 and 2000. Jobs in the state sector or sponsored by the state are, therefore, still an important means for obtaining urban *hukou*.

#### **4.4 Summary**

The empirical analysis in this chapter shows that between 1990 and 2000 the gaps between inter-provincial permanent migrants and temporary migrants did not narrow but in most aspects had widened. This is the combined result of the *hukou* system and maturation of migration streams. There is little evidence that *hukou* reforms have made

*hukou* change easier. Permanent migrants largely move through state-sponsored channels, whereas temporary migrants are largely self-initiated. Over time, “study/training” has become the most important means of permanent migration and seeking jobs in industrial, commerce and services sectors is the dominant reason for temporary migration. Permanent migrants are increasingly represented by young and highly educated individuals. In contrast, the selectivity of temporary migrants has declined. Over time, a larger spectrum of population, including the less skilled and educated, has joined the temporary migration streams. The net result of the above is a persistence of a two-track migration system.

The statistical analysis further confirms the observations made from descriptive analysis. Migration reason and educational attainment largely determine migrants’ chances of obtaining *hukou* in the destination. INDUSTRY/BUSINESS (seeking jobs in industry, commerce and service sectors) is the most powerful variable negatively associated with permanent migration. Having college and above education significantly increases migrants’ likelihood of being permanent migrants. Pursuing higher education has become a more important means of permanent migration, while state-sponsored job-related permanent migration has declined in importance as China’s centrally planned economy gradually gives way to one driven by market.

## **Chapter 5**

### **Occupational Attainment**

#### **of Permanent Migrants and Temporary Migrants**

From this chapter on, I will focus on permanent and temporary migrants' experiences in the destination, especially in cities, where *hukou* regulations are still relatively tight and the labor market is segmented. How migrants fare in the destination not only sheds light on their well-being after migration but may directly affect their subsequent decisions on returning to their origins, moving to other places or settling down in their destinations, which in turn has important implications for the development of both the sending and receiving communities. Migrants' experiences in the destination are largely related to their work. In this chapter, I examine the differentials in occupational attainment between inter-provincial permanent and temporary migrants, especially rural-urban migrants. Statistical analysis is also conducted to evaluate the effects of *hukou* status and other socioeconomic factors on migrants' occupational attainment and how their effects have changed over time.

#### **5.1 Occupational attainment of permanent and temporary migrants**

Both the 1990 and 2000 censuses employ the three-digit China's Standard

Classification and Codes of Occupations (CSCCO) designed by the State Standardization Bureau of China (SSBC). However, the two censuses use two different versions of CSCCO. The 1990 census uses the 1986 CSCCO, which classifies 303 types of occupation into eight major categories, namely “government”, “professional”, “administrative”, “commerce”, “services”, “industrial”, “agriculture” and “others”. In 1999, the SSBC made adjustments to the CSCCO and the newer version is used in the 2000 census, which classifies 410 types of occupation into seven major categories. This classification combines “commerce” and “services” into one category “commerce and services”. In this chapter, to enable comparison between the two censuses, I combine “commerce” with “services” for the 1990 census. Thus the analysis below is mainly based on the six major occupation categories shown in Table 5.1. In general, “government”, “professional” and “administrative” work is considered non-manual and more prestigious than “commerce/services” and “industrial” work, and “agriculture” is at the lowest end of the occupational hierarchy.

**Table 5.1 Classification of occupations**

Major category	Examples
Government	Government officials, party officials, principals of enterprises
Professional	Scientists, engineers, health care workers, finance personnel, law practitioners, teachers, art/sport personnel, cultural/media personnel, clergy
Administrative	Administrative/executive personnel, public security officers, firemen, postal workers
Commerce/services	Sales, purchase personnel, procurement personnel, restaurant and hotel servers, cooks, tour guides, repair workers, hairdresser, maids
Industrial	Extraction workers, metallurgical workers, chemists, manufacturing workers, textile/garment workers, machinery workers, printers, electric workers, construction workers, transportation operators
Agriculture	Farmers, forestry workers, fishermen, animal husbandry workers, hunters

Sources: SSBC: Classification and Codes of Occupations (GB 6565-1986 and GB 6565-1999).

Note: See also Fan (2008, p.100).

Table 5.2 shows the labor force status and occupational attainment of the general population, inter-provincial permanent migrants and temporary migrants aged 15 and over, based on the 1990 and 2000 censuses. The labor market participation rate of temporary migrants is higher than that of the general population, reflecting the former's concentration in young working age (see Table 4.2). In contrast, the labor market participation rate of permanent migrants is much lower than that of the general population. A large proportion of permanent migrants are students, due to the prominence of "study/training" as a reason for permanent migration (Fan 2008: 101). In the 1990 census, 21.0 percent of permanent migrants are students. By the 2000 census, this proportion has further increased to 39.6 percent. As a result, less than half (48.4 percent) of permanent migrants are in the labor market, which is much lower than the 88.1 percent

for temporary migrants.

Among those working, migrants as a whole have higher occupational attainment than the general population. A much smaller proportion of the former engage in agriculture than the latter (9.1 percent versus 64.5 percent in the 2000 census). However, the differentials in occupational attainment between permanent and temporary migrants are striking. Permanent migrants are highly represented in the high- and low-ends of the occupation hierarchy (see also Fan 2008: 101), while temporary migrants are concentrated in the middle. According to the 1990 census, 38.1 percent of permanent migrants and only 5.2 percent of temporary migrants are in professional, government, and administrative occupations – occupations characterized by high pay, good benefits, and job stability (Table 5.2). Also, permanent migrants (28.7 percent) are more likely than temporary migrants (19.1 percent) to engage in agriculture, reflecting the fact that it is relatively easy for migrants to obtain *hukou* in rural areas. Among temporary migrants, the leading occupations are industrial and commerce/services, whose shares are respectively 58.7 percent and 16.8 percent. The industrial and commerce/services jobs those migrants engage in tend to be characterized by low pay, poor benefits, and lack of stability.

**Table 5.2 Occupational attainment of inter-provincial permanent and temporary migrants (15+), 1990 and 2000**

	1990				2000			
	15+ Population	Permanent Migrants	Temporary Migrants	(P/T)-1	15+ Population	Permanent Migrants	Temporary Migrants	(P/T)-1
<b>Labor force status (%)</b>								
Working	79.2	67.4	83.2	-	74.1	48.4	88.1	-
Student	4.8	21.0	2.9	-	5.4	39.6	2.1	-
Homemaker	8.4	4.2	8.8	-	7.8	5.3	5.5	-
Other non-working	7.6	7.4	5.1	-	12.7	6.6	4.4	-
<b>Occupation (%)</b>								
Government	1.8	4.1	1.0	3.2	1.7	1.4	1.2	0.2
Professional	5.3	22.9	3.0	6.6	5.7	17.0	2.6	5.5
Administrative	1.7	11.1	1.2	7.9	3.1	7.7	3.1	1.5
Commerce/services	5.4	8.7	16.8	-0.5	9.3	8.3	21.2	-0.6
Industrial	15.2	24.2	58.7	-0.6	15.8	17.5	66.0	-0.7
Agriculture	70.6	28.7	19.1	0.5	64.5	48.1	5.9	7.1
Other	0.0	0.3	0.1	2.0	0.1	0.0	0.0	0.0

Sources: NBS 1993; NBS 2002; 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: See also Fan (2008, p.102).



By 2000, the differentials between permanent and temporary migrants in high-ranked occupations declined while the differentials in the middle and low-end ones further enlarged. Following Huang's (2001) method, a difference index  $(P/T)-1$ <sup>6</sup> is calculated and reported in Table 5.2. Although in both censuses permanent migrants are more likely than temporary migrants to engage in government, professional and administrative work, the difference indices have declined from 3.2, 6.6, 7.9 to 0.2, 5.5, and 1.5 respectively. The narrowed gaps, interestingly, are mainly attributed to the decreased representation of those occupations among permanent migrants in 2000, which is likely due to the increased prominence of agriculture – 48.1 percent – largely a result of marriage migrants from rural origins to rural destinations (Davin 1999; Fan 2008: 101). Consistent with this observation, the difference index for agriculture increased considerably from 0.5 in 1990 to 7.1 in 2000. At the same time, the difference indices for industrial work and commerce/services become more negative over time, reinforcing the increasing dominance of those occupations among temporary migrants. By the 2000 census, 66.0 percent of temporary migrants engaged in industrial work and 21.2 percent in commerce and services, compared to respectively 58.7 percent and 16.8 percent in the 1990 census. As a result, the differentials between permanent and temporary migrants in

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<sup>6</sup> The difference index is defined as  $(P/T)-1$ , where P is the percentage of permanent migrants engaging in a certain occupation, and T is the percentage of temporary migrants engaging in the same occupation. If the index is  $< 0$ , permanent migrants are less likely than temporary migrants to be in that occupation, and if the index is  $> 0$ , permanent migrants are more likely to be in that occupation. The larger the absolute value of the index, the larger is the difference between permanent and temporary migrants. See also Huang 2001, notes 11 and 12.

industrial work and commerce/services have also widened. Overall the differentials in occupational attainment between permanent and temporary migrants have enlarged between the two censuses. The Index of Dissimilarity<sup>7</sup> increased from 0.43 to 0.61, which indicates that 43 percent of permanent migrants in the 1990 census and 61 percent in the 2000 census would have to change their jobs in order to have the same occupational distribution as temporary migrants.

## 5.2 Occupational attainment of rural-urban permanent and temporary migrants

The rest of this chapter focuses on inter-provincial rural-urban permanent and temporary migrants. Since the economic reforms, the urban labor market in China has expanded, yet it is still segmented by institutions such as *hukou*. Without a local urban *hukou*, temporary migrants' opportunities in the labor market are constrained (Fan 2002a, 2003) and they are generally channeled to the low-paid "3D" (dirty, difficult and dangerous) jobs (Chan and Zhang 1999; Solinger 1999). Temporary migrants in the city tend to be at the bottom segments of the labor market hierarchy compared to local residents and permanent migrants, reflecting both temporary migrants' low human capital and social status (Chan and Zhang 1999; Fan 2002a; Meng and Zhang 2001; Solinger 1999). This section aims at examining the gaps in occupational attainment between

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<sup>7</sup> The Index of Dissimilarity is defined as  $\frac{1}{2} \sum |p_i - t_i|$ , where  $p_i$  is the proportion of permanent migrants in the  $i^{\text{th}}$  occupation and  $t_i$  is the proportion of temporary migrants in the  $i^{\text{th}}$  occupation.

rural-urban permanent and temporary migrants and their changes over time, as well as the extent to which the gaps can be explained by the differentials in migrants' demographic and socioeconomic characteristics, and their *hukou* status.

### ***5.2.1 Occupational attainment of rural-urban permanent and temporary migrants***

In China, the economic structure, labor markets and *hukou* regulations of towns and cities are very different (Goldstein and Goldstein 1991; Yang and Guo 1996). Here I focus on rural migrants who move to cities (the restrictive definition of urban areas, see Chapter 3).

Table 5.3 summarizes the labor force status and occupational attainment of urban residents as a whole, and rural-urban permanent and temporary migrants, for ages 15 and above. Large proportions of rural-urban permanent migrants are not working – 32.4 percent in 1990 and 81.9 percent in 2000 – compared to temporary migrants and all urban residents. The vast majority of non-working permanent migrants are students, again reflecting the dominance of “study/training” as a means of rural-urban permanent migration (see chapter 4). In contrast, most rural-urban temporary migrants – over 88 percent in both censuses – are working.

**Table 5.3 Occupational attainment of inter-provincial rural-urban permanent and temporary migrants (15+), 1990 and 2000**

	1990				2000			
	Urban Residents* (15+)	Permanent Migrants	Temporary Migrants	(P/T)-1	Urban Residents (15+)	Permanent Migrants	Temporary Migrants	(P/T)-1
<b>Labor force status (%)</b>								
Working	73.0	68.6	88.1	-	59.6	18.1	88.6	-
Student	7.2	23.4	1.1	-	9.1	71.5	1.4	-
Homemaker	7.4	4.3	7.9	-	8.6	4.1	6.2	-
Other non-working	12.4	3.7	2.9	-	22.7	6.2	3.7	-
<b>Occupation (%)</b>								
Government	4.6	1.4	0.5	2.2	4.4	0.7	1.1	-0.4
Professional	12.9	8.3	1.5	4.4	14.2	33.1	1.5	21.7
Administrative	5.0	3.8	1.0	2.7	9.7	8.3	2.7	2.1
Commerce/Services	13.5	17.5	22.4	-0.2	23.5	22.8	28.0	-0.2
Industrial	38.6	39.7	64.4	-0.4	33.8	20.0	64.0	-0.7
Agriculture	25.3	28.9	10.2	1.8	14.4	15.2	2.8	4.4
Other	0.1	0.3	0.0	-	0.0	0.0	0.0	-

Sources: NBS 1993; NBS 2002; 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: \*: Here urban residents refer to individuals living in cities.

Among the working population, the occupational attainment of rural-urban permanent and temporary migrants differs considerably. Permanent migrants are more likely than temporary migrants to have prestigious occupations, in particular professional occupation. According to the 1990 census, permanent migrants are more than 5 times as likely as temporary migrants to be professionals (8.3 percent versus 1.5 percent). By the 2000 census, the gap has further increased to more than 22 times (33.1 percent versus 1.5 percent). In fact professional work has become the leading occupation for permanent migrants. About one-third of permanent migrants are professionals, a proportion much higher than the 14.2 percent for all urban residents. This reflects rural-urban permanent migrants' high concentration in the college and above education level (see chapter 4, Table 4.3), which is largely a result of the *hukou* policy that aims at attracting high-skilled migrants while excluding others.

Rural-urban permanent migrants are also relatively concentrated in agriculture. In both censuses, the proportions of permanent migrants engaging in agriculture are slightly higher than that of all urban residents and considerably higher than that of temporary migrants.

On the other hand, rural-urban temporary migrants are more likely than permanent migrants to be in commerce/services and especially industrial work. Industrial work has always been the dominant occupation for temporary migrants. In the 1990

census, 64.4 percent of temporary migrants and 39.7 percent of permanent migrants engage in industrial work. By the 2000 census, the proportion of the former has hardly changed while that of the latter has declined to 20.0 percent. Consequently, the difference between permanent and temporary migrants has increased.

Overall, the differentials in occupational attainment between rural-urban permanent and temporary migrants have enlarged between the two censuses, as illustrated by the increase in the Index of Dissimilarity from 0.29 to 0.50 (see Note 7 on p.93 for explanation of the index). Permanent migrants are highly and increasingly represented in high-prestige jobs, while temporary migrants continue to concentrate in occupations of low pay and status.

### ***5.2.2 Occupational attainment of rural-urban permanent and temporary migrants by migration reason***

In Chapter 4, I have shown that migration reason is the most important factor that affects a migrant's chance to obtain *hukou* in the destination. Also, studies have shown that the demographic and socioeconomic characteristics of migrants differ among migration reasons (Fan 1999, 2008: 57-61; Liang and Ma 2004). In this section, I examine the occupational attainment of rural-urban permanent and temporary migrants by migration reason. Migration reasons are conventionally collapsed into two groups,

namely economic reasons and social reasons. The former includes “job transfer”, “job assignment” and “industry/business”, and the latter includes “joining family”, “marriage” and “friends/relatives”. “Study/training” and other reasons are excluded here, because very few working migrants are in the “study/training” category.

Among rural-urban migrants for economic reasons, the differentials in occupational attainment between permanent and temporary migrants are profound, as shown in Table 5.4. According to the 1990 census, industrial work is the leading occupation for both permanent migrants and temporary migrants for economic reasons, but the proportion of permanent migrants (52.5 percent) is lower than that of temporary migrants (69.0 percent). Meanwhile, permanent migrants for economic reasons are more likely than their temporary migrant counterparts to have prestigious occupations, such as government, professional, and administrative work, and less likely to be in commerce/services. By the 2000 census, the occupational distribution of temporary migrants for economic reasons has not changed much. Among permanent migrants for economic reasons, however, professional work (52.4 percent) has replaced industrial work as the dominant occupation and the prominence of industrial work (20.2 percent) has significantly declined. As a result the gap between rural-urban permanent and temporary migrants for economic reasons has widened over time. This mainly reflects the increased differentials in human capital between the two groups. In the 1990 census, 10.0

percent of rural-urban permanent economic migrants have college and above education, compared to 0.1 percent for their temporary migrant counterparts. By the 2000 census, the respective levels have changed to 51.2 percent and 0.8 percent. That is, human capital has increasingly become the key for economic migrants in obtaining *hukou* in cities. At the same time, having a local *hukou* also helps permanent migrants in obtaining prestigious jobs. For migrants with the same level of educational attainment, rural-urban permanent migrants are more likely than temporary migrants to have better jobs (see section 5.2.4 below).

Among rural-urban migrants for social reasons, the differences in occupational attainment between permanent and temporary migrants are quite small, according to the 1990 census. Agriculture is the leading occupation for both permanent and temporary migrants for social reasons, followed by industrial, commerce/services, professional, administrative and government. The Index of Dissimilarity between the two groups is only 0.07. By the 2000 census, however, commerce/services has become the most popular occupation for both permanent and temporary migrants for social reasons. Although about one-third (33.9 percent) of permanent migrants for social reasons engage in agriculture, the proportion for their temporary migrant counterparts has declined considerably from 44.6 percent in the 1990 census to 16.6 percent in the 2000 census. Meanwhile, the proportion of permanent migrants for social reasons engaging in



industrial work has also declined from 33.0 percent to 17.9 percent. As a result, the Index of Dissimilarity has increased to 0.21 in the 2000 census.

Comparing the occupational attainment of rural-urban migrants for economic reasons with those for social reasons reveals some interesting observations. Among permanent migrants, economic migrants have much better occupational attainment than social migrants in both censuses, reflecting the differentials in human capital between the two groups. The situation among temporary migrants is different. In both the 1990 and 2000 censuses, temporary migrants for social reasons are more likely than those for economic reasons to have professional jobs. Moreover, in the 2000 census, social migrants are considerably more likely than economic migrants to engage in commerce/services work, among both permanent and temporary migrants. These results may be due to the fact that social migrants on average have wider social networks, including family and friends, in the destination than economic migrants. Those social networks are useful for obtaining prestigious jobs or setting up business.

**Table 5.4 Occupational attainment of inter-provincial rural-urban permanent and temporary migrants (15+) by migration reason, 1990 and 2000**

	1990				2000			
	Economic Reasons		Social Reasons		Economic Reasons		Social Reasons	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
	Migrants	Migrants	Migrants	Migrants	Migrants	Migrants	Migrants	Migrants
Government	3.4	0.5	0.3	0.2	1.2	1.1	0.0	0.0
Professional	17.5	1.1	2.9	1.6	52.4	1.3	7.1	3.6
Administrative	8.3	1.1	1.2	0.6	10.7	2.6	5.4	4.9
Commerce/services	12.7	23.4	21.2	16.7	14.3	27.5	35.7	39.7
Industrial	52.5	69.0	33.0	38.5	20.2	65.2	17.9	35.2
Agriculture	5.3	4.9	41.1	42.6	1.2	2.3	33.9	16.6
Index of Dissimilarity	0.27		0.07		0.59		0.21	

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

To sum up, for both rural-urban economic and social migrants, permanent migrants tend to have higher occupational attainment than temporary migrants. Furthermore, the differentials in occupational attainment between permanent and temporary migrants for economic reasons are larger than those among migrants for social reasons. This suggests that *hukou* regulations in cities are tighter for economic migrants than social migrants. Migration reason is an important factor that relates to rural-urban migrants' occupational attainment in the destination, especially for temporary migrants. Among temporary migrants in the 2000 census, those for social reasons tend to have better occupational attainment than those for economic reasons, pointing to the link between social network and occupational attainment.

### ***5.2.3 Occupational attainment of rural-urban permanent and temporary migrants by gender***

Gender is an important factor affecting one's occupational attainment. Huang (2001) argues that female migrants' occupational attainment is subject to the double constraints of gender and the segmented labor market resulting from the *hukou* system. In this section, I examine the occupational attainment of rural-urban permanent migrants and temporary migrants by gender.

**Table 5.5 Occupational attainment of inter-provincial rural-urban permanent and temporary migrants (+15) by gender, 1990 and 2000**

	Urban residents		Permanent migrants		Temporary migrants	
	Male	Female	Male	Female	Male	Female
1990 census (%)						
Government	6.9	1.7	2.5	0.6	0.6	0.1
Professional	10.6	15.7	10.8	6.1	1.5	1.8
Administrative	6.1	3.6	6.6	1.3	1.2	0.4
Commerce/services	10.9	16.8	10.4	23.7	17.4	38.1
Industrial	42.8	33.2	51.0	29.9	72.9	37.6
Agriculture	22.5	28.8	18.4	38.0	6.5	22.0
Index of Dissimilarity	0.17		0.33		0.36	
2000 census (%)						
Government	6.2	2.1	1.2	0.0	1.5	0.4
Professional	10.5	19.0	45.9	15.0	1.5	1.4
Administrative	11.4	7.4	9.4	6.7	3.7	1.2
Commerce/services	19.7	28.1	16.5	31.7	25.8	31.1
Industrial	39.3	26.7	21.2	18.3	64.7	63.0
Agriculture	12.8	16.6	5.9	28.3	2.8	2.8
Index of Dissimilarity	0.21		0.38		0.05	

Sources: NBS 1993; NBS 2002; 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Among rural-urban male migrants, as expected, permanent migrants tend to have higher occupational attainment than temporary migrants and the gaps between them have widened over time (Table 5.5). The Index of Dissimilarity has almost doubled from 0.29 in the 1990 census to 0.53 in the 2000 census (dissimilarity between column 4 and 6 in Table 5.5, not shown in the table), reflecting gaps between the two groups in both human capital and social status. Among rural-urban female migrants, the situation is quite similar. To reveal the role of gender in migrants' occupational attainment, next I examine the gender differences in occupational attainment among permanent migrants and temporary migrants respectively.

Among rural-urban permanent migrants, gender difference in occupational attainment is large. Male permanent migrants have higher occupational attainment than their female counterparts. The former are more likely than the latter to have government, professional, and administrative occupations, and less likely to engage in agriculture. This reflects both the labor market segmentation by gender and the differentials in human capital between the two groups. On the one hand, the urban labor market in China is segmented by gender. Rooted in the Confucian ideology, women in China are considered inferior to men both at home and in the labor market. Many employers are reluctant to hire women, especially for long-term jobs, because of their maternity and family responsibilities (Huang 2001; Park 1992). Women also have fewer opportunities than

men to be leaders and hold high positions in government or business management. As illustrated in Table 5.5, among urban residents, women are less likely than men to have government jobs. Double constrained by their migrant status and gender, female migrants are generally channeled to less prestigious and low paid jobs, such as service work, assembly line work and agriculture.

On the other hand, male and female permanent migrants move through different channels. Among working permanent migrants, the majority of male migrants migrate for job-related economic reasons. In the 2000 census, 49.4 percent of them move for “job assignment”, followed by “job transfer” (17.8 percent) and “industry/business” (15.3 percent). In general, to get a local urban *hukou* through these channels, migrants need either state-sponsorship or/and high education and skills, both of which help migrants to obtain prestigious jobs. On the other hand, the vast majority of female permanent migrants get *hukou* change through social channels, which generally have no requirement on educational attainment or skills. In the 2000 census, for example, 45.0 percent of female permanent migrants move for “marriage” and 18.3 percent for “joining family”. Not surprisingly, male permanent migrants on average are much better educated than their female counterparts. According to the 2000 census, while professional (45.9 percent) is the leading occupation for male permanent migrants, it is the fourth-ranked occupation (15.0 percent) for female permanent migrants. Moreover, urban marriage market is

largely closed to rural migrants (Fan 2002b). Thus, female marriage migrants are largely channeled to urban fringe and engage in agriculture. In both the 1990 and 2000 censuses, female permanent migrants are more likely than not only their male counterparts, but also the general female urban residents, to engage in agriculture.

Overall, the occupational attainment of male permanent migrants is similar to or better than that of the general male urban residents, while the occupational attainment of female permanent migrants is lower than that of female urban residents (Table 5.5). Thus, the gender difference in occupational attainment among rural-urban permanent migrants is larger than that among urban residents.

The story of rural-urban temporary migrants is different. Due to their *hukou* status and relatively low educational attainment, both male and female temporary migrants have fewer opportunities to get prestigious jobs, compared respectively to male and female urban residents. More importantly, the gender difference in occupational attainment among temporary migrants has considerably declined between the 1990 and 2000 censuses. In the 1990 census, the gender difference is large. Male temporary migrants are much more likely than female temporary migrants to engage in industrial work, and less likely to engage in commerce/services and agriculture. By the 2000 census, the occupational distributions of male and female temporary migrants have become very similar (Table 5.5). Industrial work has become the dominant occupation for both male

and female temporary migrants (64.7 percent and 63.3 percent respectively), followed by commerce/services. The Index of Dissimilarity has declined from 0.36 in the 1990 census to 0.05. This reflects that as migration streams mature and more and more women participate in migration, the gender difference in temporary migrants' socioeconomic characteristics narrows over time.

In sum, among both rural-urban male and female migrants, permanent migrants are more likely than temporary migrants to have prestigious occupations. More importantly, the gender difference in occupational attainment among rural-urban permanent migrants is large and it persists between the two censuses. Male permanent migrants have much better occupational attainment than their female counterparts, attributed to the urban labor market segmentation and their different channels of permanent migration. Meanwhile, the gender difference among rural-urban temporary migrants has significantly narrowed as migration streams mature over time.

#### ***5.2.4 Occupational attainment of rural-urban permanent and temporary migrants by educational attainment***

Unquestionably, educational attainment is an important factor determining one's occupational attainment. Better educated people are more likely than those less educated to have prestigious jobs. However, studies (e.g. Chen 1996; Fan 2002a; Meng and Zhang



2001) have shown that temporary migrants in cities are not only disadvantaged by their low human capital, but also their migrant status, in the labor market. The analysis in this section reinforces this observation.

Table 5.6 shows the occupational attainment of inter-provincial rural-urban permanent and temporary migrants by their educational attainment, in the 1990 and 2000 censuses. Among both permanent and temporary migrants, not surprisingly, better educated migrants tend to have better occupational attainment than those less educated. According to the 2000 census, for example, the dominant occupation for temporary migrants with junior secondary and below education is industrial work (65.6 percent), while the most popular occupation for temporary migrants with college and above education is professional (36.9 percent).

**Table 5.6 Occupational attainment of inter-provincial rural-urban permanent and temporary migrants by educational attainment, 1990 and 2000**

		Government	Professional	Administrative	Commerce /Services	Industrial	Agriculture	Index of Dissimilarity
<b><u>1990</u></b>								
Junior secondary and below	PM*	0.4	2.2	1.6	19.8	39.9	36.0	0.27
	TM*	0.3	1.0	0.9	22.5	64.6	10.6	
Senior secondary	PM	3.7	18.9	9.7	5.2	45.1	5.2	0.29
	TM	1.6	6.1	1.9	21.4	62.5	6.6	
College and above	PM	9.8	67.4	13.6	2.3	6.8	0.0	0.23
	TM	4.0	56.0	8.0	12.0	16.0	4.0	
<b><u>2000</u></b>								
Junior secondary and below	PM	0.0	1.5	7.4	33.8	27.9	29.4	0.39
	TM	0.9	0.6	2.0	27.8	65.6	3.0	
Senior secondary	PM	0.0	29.6	14.8	29.6	22.2	3.7	0.36
	TM	2.0	4.5	6.5	29.8	56.0	1.2	
College and above	PM	2.0	78.0	6.0	4.0	8.0	2.0	0.41
	TM	6.0	36.9	9.5	21.4	23.8	2.4	

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Note: PM: permanent migrants; TM: temporary migrants.

One more interesting observation is that, among rural-urban migrants with the same level of educational attainment, permanent migrants are more likely than temporary migrants to have prestigious jobs. In the 1990 census, among rural-urban migrants with senior secondary education, 32.3 percent of permanent migrants are in government, professional and administrative occupations, compared to 9.6 percent for temporary migrants. Among migrants with college and above education, 89.8 percent of permanent migrants are in the above three occupations, but only 68.0 percent for temporary migrants. The large indices of dissimilarity – between 0.23 and 0.29 – also indicate that the difference in occupational attainment between rural-urban permanent and temporary migrants with the same level of educational attainment is considerable. By the 2000 census, the above phenomenon persists. Moreover, the occupational differentials between two groups of migrants with the same level of education have further enlarged, as indicated by the increased indices of dissimilarity (Table 5.6). These suggest that, besides human capital, *hukou* status is also an important factor that affects rural-urban migrants' occupational attainment. Having a local *hukou* significantly increases migrants' chance to obtain prestigious jobs. That is, permanent migrants are state-sponsored or have more access to institutional resources (Fan 2002a). Also, many jobs are only reserved for local residents and permanent migrants, especially those in state-sectors (Meng and Zhang 2001, see also chapter 6).

In sum, rural-urban temporary migrants are double disadvantaged by their low human capital and migrant status in the labor market. More importantly, it appears that this type of discrimination against temporary migrants has continued over time.

### **5.3 Modeling rural-urban migrants' occupational attainment**

The above descriptive analysis shows that there are striking differences in occupational attainment between rural-urban permanent and temporary migrants. However, migrants' demographic and socioeconomic characteristics, such as gender, educational attainment and migration reason, are also important factors affecting their occupational attainment. To compare the likelihood of rural-urban permanent and temporary migrants being in each occupational categories controlling for the effects of other variables, I estimate a multinomial logistic (MNL) regression model. It is to test whether or not the observed differences in occupational attainment between rural-urban permanent and temporary migrants still hold if all other things are equal.

The dependent variable is the occupation of rural-urban working migrants aged 15 and above. To estimate the multinomial logistic model, each occupation must have a large enough sample. Due to the small sample size for permanent migrants working in government in the 2000 census sample, I collapsed the occupational categories into four. Government, professional and administrative workers are grouped into a "professional"

category. Industrial work is selected as the reference group and the estimated coefficients are interpreted relative to it. Six sets of independent variables are included. In addition to GENDER, EDUCATION, MIGRANT STATUS, and MIGRATION REASON described earlier, AGE and MARITAL STATUS are also included as control variables. To evaluate how the effects of independent variables have changed over time, I estimate the MNL regression models for the 1990 and 2000 censuses separately.

Table 5.7 summarizes the regression results. Overall, both models are statistically significant, as indicated by the large Chi-square statistics. Also, 67.4 percent and 64.7 percent of the observations are correctly classified in the 1990 model and the 2000 model respectively. Most coefficients are significant at 0.05 or higher level. The results largely support the descriptive observations made earlier.

AGE is significant and positive for professional and commerce/services in both models, and positive for agriculture in the 2000 model. As age goes up, migrants are more likely to engage in professional, commerce/service work and agriculture, compared to industrial work, holding other variables constant. Accumulated experiences help migrants to move up the occupational ladder, whereas in general industrial employers prefer younger workers.

GENDER is coded 1 for men and 0 for women. In the 1990 model, GENDER is significant and has negative coefficients for all professional, commerce/services and

agriculture. Men are less likely than women to have professional, commerce/services and agricultural jobs, relative to industrial jobs. In the 2000 model, GENDER becomes positive for professional, which indicates that men are more likely than women to be professionals, net of other variables. It appears that over time female migrants have become more disadvantaged than male migrants in the urban labor market.

EDUCATION is represented by two dummy variables: SENIOR SECONDARY and COLLEGE AND ABOVE; with JUNIOR SECONDARY AND BELOW as the reference group. As expected, level of education is very important for migrants to obtain prestigious jobs. SENIOR SECONDARY and COLLEGE AND ABOVE are significantly and positively associated with professional in both models. Moreover, the odds ratio of the latter is much larger than that of the former (Table 5.7), which suggests that higher education significantly increases migrants' chance to be professionals, relative to industrial workers. Meanwhile, SENIOR SECONDARY is significant and negative for agriculture. It appears that better education also decreases migrants' probability to engage in agriculture. Interestingly, COLLEGE AND ABOVE is not significant for agriculture in both the 1990 and 2000 models. This may be due to the fact that few migrants with college and above education engage in agriculture (see Table 5.5).

**Table 5.7 Multinomial logistic regression on occupational attainment of inter-provincial rural-urban migrants, 1990 and 2000**

	1990			2000		
	Coefficient	Z	Odds ratio	Coefficient	Z	Odds ratio
<b><u>Professional</u></b>						
Age	0.06***	13.98	1.06	0.04***	5.25	1.04
Gender (Male)	-0.58***	-6.32	0.56	0.61***	5.36	1.84
Education						
Senior high	1.75***	21.89	5.77	1.46***	13.71	4.31
College and above	4.79***	15.70	120.11	3.64***	14.22	38.07
Marital status (Married)	-0.04	-0.42	0.96	-0.11	-0.87	0.90
Migration reason						
Social reasons	-0.44***	-3.76	0.64	0.86**	3.34	2.36
Other reasons	1.36***	9.54	3.91	0.58*	2.14	1.79
Migrant status (Permanent)	1.14***	13.08	3.14	1.73***	6.06	5.66
<b><u>Commerce/services</u></b>						
Age	0.06***	26.64	1.06	0.03***	7.61	1.03
Gender (Male)	-1.58***	-37.98	0.21	-0.36***	-7.22	0.70
Education						
Senior high	-0.02	-0.27	0.98	0.33***	4.61	1.39
College and above	0.47	0.93	1.59	0.65*	2.10	1.92
Marital status (Married)	0.00	0.08	1.00	0.41***	6.53	1.51
Migration reason						
Social reasons	-0.19**	-3.20	0.83	0.87***	5.96	2.38
Other reasons	0.26*	2.09	1.29	0.57***	3.79	1.77
Migrant status (Permanent)	-0.27***	-4.31	0.76	0.35	0.20	1.41
<b><u>Agriculture</u></b>						
Age	-0.00	-1.23	1.00	0.07***	9.82	1.07
Gender (Male)	-1.04***	-18.99	0.35	-0.26*	-1.96	0.77
Education						
Senior high	-0.76***	-8.29	0.47	-0.70*	-2.52	0.50
College and above	-0.67	-0.64	0.51	0.44	0.68	1.55
Marital status (Married)	1.08***	17.73	2.95	1.11***	5.63	3.05
Migration reason						
Social reasons	2.16***	36.17	8.67	2.48***	12.13	12.00
Other reasons	2.90***	27.97	18.20	1.47***	5.16	4.35
Migrant status (Permanent)	0.02	0.28	1.02	1.34***	3.95	3.81
<b>Model chi-square</b>	8499.69			1374.28		
<b>Pseudo R<sup>2</sup></b>	0.19			0.08		
<b>Percentage correctly predicted</b>	67.4			64.7		
<b>Number of cases</b>	21438			9540		
<b>Degree of freedom</b>	24			24		

Sources: 1990 census one-percent sample; 2000 census 0.1-percent inter-provincial migrant sample.

Notes: Significance levels: \*: 0.05; \*\*: 0.01; \*\*\*: 0.001.

Reference groups: Gender (female); Education (junior secondary and below); Marital status (other, mostly single), Migration reason (economic reasons); Migrants status (temporary).

MARITAL STATUS is coded 1 for married and 0 for other (mostly single). Other is used as the reference group. MARITAL STATUS is significant and positive for agriculture in both models. Married migrants are more likely than other migrants to engage in agriculture, relative to industrial work. In the 2000 model, MARITAL STATUS is also significantly and positively associated with commerce/services. These results may be related to the fact that a large proportion of rural-urban migrants engaging in industrial work are channeled to the assembly-lines in factories which are subject to strict disciplines. Factories may prefer single migrants because they have less family responsibility and thus are easier to manage.

Migration reasons are grouped into three categories, namely ECONOMIC REASONS, SOCIAL REASONS and OTHER. I choose ECONOMIC REASONS as the reference group because most rural-urban working migrants move for economic reasons. SOCIAL REASONS is significant and has negative coefficients for professional and commerce/services in the 1990 model, but the coefficients change to positive in the 2000 model. It is unclear why social migrants are less likely than economic migrants to have professional and commerce/services jobs, relative to industrial jobs, in the 1990 model. However, the positive sign in the 2000 model supports the earlier observation that social network in the city is an important factor affecting migrants' occupational attainment. Taking advantage of their network, social migrants are more likely than economic



migrants to obtain prestigious jobs or set up business in the city, net of other variables. SOCIAL REASONS is significantly and positively related to agriculture in both models. Economic migrants are less likely than social migrants to engage in agriculture largely due to the fact a significant proportion of social migrants are female marriage migrants who are channeled to urban fringe and engage in agriculture.

The above statistical results show that migrants' demographic and socioeconomic characteristics have great influence on their occupational attainment. However, this is not the whole story. Migrant status still plays an important role in migrants' occupational attainment after controlling for other variables. MIGRANT STATUS is coded 1 for permanent migrants and 0 for temporary migrants. MIGRANT STATUS is significantly and positively related to professional in both models, which indicates that permanent migrants are more likely than temporary migrants to be professionals, holding other variables constant. The odds ratio of permanent migrants being professionals, relative to industrial workers, is 3.14 times and 5.66 times that of temporary migrants in the 1990 and 2000 models, respectively. Having a local *hukou* significantly increases migrants' chance to obtain prestigious jobs and this phenomenon persists over time. Meanwhile, MIGRANT STATUS is not significant for agriculture in the 1990 model, but significant and positive in the 2000 model. Permanent migrants are also more likely than temporary migrants to engage in agriculture. Again, this may relate to female marriage migrants

who engage in agriculture in urban fringe.

#### **5.4 Summary**

Based on data from the 1990 and 2000 censuses, in this chapter, I have examined the occupational attainment of inter-provincial permanent and temporary migrants. The analysis has focused especially on rural-urban migrants since China's urban labor market is highly segmented and the segmentation is heavily driven by *hukou*. Rural-urban permanent migrants as a whole have better occupational attainment than temporary migrants and the gaps between them have enlarged between the two censuses. Permanent migrants are highly and increasingly represented in high-prestige occupations, such as government, professional and administrative work, while temporary migrants continue to concentrate in occupations of low pay and status, such as industrial and commerce/services work.

Moreover, migrants' reason for migration, gender and educational attainment are also factors that affect their occupation. Rural-urban migrants for economic reasons have higher levels of occupational attainment than those for social reasons. The differentials in occupation between rural-urban permanent and temporary migrants are larger among economic migrants than among social migrants. That is, *hukou* regulation is tighter on economic migration than social migration.

In general, rural-urban male migrants have better occupations than their female counterparts. Among permanent migrants, men are more likely than women to have prestigious jobs and less likely to engage in commerce/services and agriculture, reflecting the labor market segmentation by gender and the differences in human capital between the two groups. Among temporary migrants, men also tend to have higher occupational attainment than women in the 1990 census. As the migration streams become more mature, however, by 2000, female temporary migrants are catching up with their male counterparts. As a result, while the gender difference in occupation among permanent migrants persists, the gender difference among temporary migrants significantly narrows over time.

In general, rural-urban migrants with better education are more likely to have better occupation. However, among migrant with the same level of education, permanent migrants have higher occupational attainment than temporary migrants. Having a local *hukou* significantly increases migrants' chance to obtain prestigious jobs.

The MNL regression analysis indicates that migrants' demographic and socioeconomic characteristics, such as age, education, marital status and migration reasons, do have great influence on their occupational attainment. However, after controlling for these variables, migrant status still plays a significant role in determining migrants' occupational attainment, and the differentials in occupational attainment

between rural-urban permanent and temporary migrants remain. These results suggest that migrants' *hukou* status significantly affects their experience in cities and that the role of *hukou* remains prominent.

## Chapter 6

### Temporary Migrants' Settlement Intention in the City

Based on the 1990 and 2000 census data, I have shown in Chapters 3-5 that the two-track migration system in China has persisted. The gaps between permanent and temporary migrants haven't narrowed but in most aspects have further enlarged over time. I have also highlighted the relationship between *hukou* reforms and the maturation of migration streams on one hand and the change of the two-track migration system on another. In this chapter, I further examine migrants' settlement intention, which has direct implications for *hukou* reforms.

Migrants' settlement intention influences not only migrants' migration decision but also their willingness and interest to pursue *hukou* change when given the opportunity. The prevailing thought as reflected in existing studies is that temporary migrants do not settle permanently in the city because they lack urban *hukou* (Zhu 2007) and accordingly they are not entitled to full-fledged urban "citizenship" and related privileges (Fan 2002a; Solinger 1999). In this perspective, all or most of the temporary migrants will settle down in the destination cities if they are awarded urban *hukou*. However, this assumption is questionable. Some studies have found that many rural migrants are not enthusiastic about changing their *hukou* to the cities even if given the opportunity to do so (Wen 2002;

Zhu 2003, 2007). Zhu (2003, 2007) conducted a survey in Fujian in 2002 and found that only about one fourth of the temporary migrants would move the whole family to their destinations even if they are permitted to obtain the destination's *hukou*. Instead, the majority of migrants choose to circulate between their origins and destinations. Other studies point out that the city's lack of social and housing provisions to rural migrants compels them to consider the countryside their permanent home (Fan 2009; Fan and Wang 2008). Circulation between the cities and countryside enables migrant households to diversify and maximize household income and to obtain the best of both worlds (Fan 2008: 12). In this light, the notion that temporary migrants would settle down permanently once urban *hukou* is provided is too simplistic. *Hukou* reforms alone are not sufficient to turn all temporary migrants into permanent migrants. By analyzing migrants' settlement intention and the underlying factors, this chapter aims at providing a better understanding of the nature of temporary migration and the role of *hukou*. The effects of *hukou* and other constraints in the city, such as job instability and low income, are discussed. The findings are expected to shed light on *hukou* reforms as well as other policies that facilitate temporary migrants' living and permanent settlement in the city.

Although census data provide valuable and comprehensive information for migration analysis, they have some drawbacks. Like census surveys in the U.S. (and many other countries), China's censuses provide snapshots rather than longitudinal data

and provide little information on long-term migrants who began migration more than five years before the census. Censuses are also not designed to examine return migration and circular migration, both prevalent in China. Finally, census-type surveys do not typically ask in-depth questions about migration process and migrants' settlement intention. To supplement the census data, I conducted a questionnaire survey in Wuxi, Jiangsu province, between July and September 2008. Analyses based on that survey constitute the main empirical basis of this chapter.



**Figure 6.1 Location of the City of Wuxi**

## 6.1 The study region

### 6.1.1 Overview

As described in Chapter 3, the majority of migrants in China move from the interior Central and Western regions to the coastal Eastern region and from rural areas to urban areas. Located at the Yangtze River Delta, Wuxi<sup>8</sup> is a large prefecture-level city in Jiangsu province (Figure 6.1) and one of the most important industrial cities in the nation. It is a city with relatively high level of development. The GDP per capita of Wuxi was 68,352 *yuan* in 2007 (Table 6.1), which was 3.61 times the national average (18,934 *yuan*). The per capita annual disposable income of urban households in Wuxi was 20,898 *yuan* in 2007, also much higher than the national level of 13,786 *yuan*. In terms of educational attainment, Wuxi's population has, on average, 9.2 years of schooling compared to 8.2 years at the national level. With a high level of living standard and rapid economic growth, Wuxi has attracted large numbers of migrants. The 2000 census records a total of 0.5 million temporary migrants in Wuxi. By July 2008, the number of registered temporary migrants reached 1.6 million<sup>9</sup>. With about 2.4 million of *hukou* population, currently about 40 percent of the people living in Wuxi are temporary

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<sup>8</sup> Unless otherwise specified, in this dissertation, Wuxi refers to the urban districts in the City of Wuxi, not including the two county-level cities, Jiangyin and Yixing, which are under the administration of Wuxi.

<sup>9</sup> This number is provided by the Office of Migrant Management in Wuxi.



migrants, among whom about two thirds are from other provinces. Thus, Wuxi is an appropriate site for studying temporary migrants' settlement intention.

**Table 6.1 Demographic and economic indicators of Wuxi, 2007**

	Wuxi	Jiangsu	China
Total <i>hukou</i> population (million)	2.4	76.2	1321.3
GDP per capita* ( <i>yuan</i> )	68,352.0	33,928.0	18,934.0
Per capita annual disposable income of urban households ( <i>yuan</i> )	20,898.0	16,378.0	13785.8
Average years of schooling	9.2	8.4**	8.2**

Sources: China Statistical Yearbook 2008; Wuxi Statistical Yearbook 2008;

Review on the thirty years of development of population and family planning in Wuxi,  
<http://rkjsw.wuxi.gov.cn/xwzx/ldjh/102196.shtml> (last accessed on January 19, 2010).

Note: \*: GDP per capita is calculated based on total population, including temporary migrants who have stayed for at least 6 months.

\*\*: Calculated by the author based on data from statistical yearbooks.

### 6.1.2 *Hukou* policy and reforms

Generally speaking, *hukou* regulations are most strict in super-large cities such as Beijing and Shanghai and most relaxed in small cities and towns. Based on its population size, Wuxi is considered a large, but not super-large, city in China's urban hierarchy. Using Wuxi as a case study enables me to examine the situation in a city with medium level of *hukou* control which may be similar to many other large cities in China.

Since 2002, *hukou* control in small cities and towns has largely been removed. Temporary migrants with a stable job and a stable place for living are allowed to change their *hukou* to these small cities and towns. However, *hukou* regulations in large cities, such as Wuxi, are still relatively tight, especially for economic migrants. Although

various reforms have been carried out since the 1990s, they were mostly designed to relax control over family migration. For example, in 1999, new born and unmarried children under 18 years old could follow either their mother or their father's *hukou* to Wuxi. Before that, they could only follow their mothers' *hukou*. Also, the city started to issue *hukou* to migrants who have been married to Wuxi residents for at least two years and have lived in Wuxi for at least two years. In 2003, the above restrictions on children's age and the length of marriage were further removed. For economic migrants, however, Wuxi *hukou* is only granted to certain qualified individuals, such as skilled professionals, overseas Chinese, investors and home buyers. In other words, the city aims at attracting quality migrants who can help boost human resources and this goal has not changed over recent years. In 2001, five types of economic migrants were qualified for Wuxi *hukou*<sup>10</sup>:

- (1) Professionals with special skills that the city is short of.
- (2) Investors who have invested at least one million *yuan*, paid over 100,000 *yuan* of tax for two consecutive years, and have home ownership in the city.
- (3) Private entrepreneurs who have paid over 20,000 *yuan* of tax for two consecutive years, and have home ownership in the city.
- (4) Home buyers who have purchased qualified home and actually live in the city.

The home should be valued over 350,000 *yuan* and the per capita construction

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<sup>10</sup> Source: [http://www.wuxi.gov.cn/open/info\\_dep/wxsgaj/bmwj/14728.shtml](http://www.wuxi.gov.cn/open/info_dep/wxsgaj/bmwj/14728.shtml) (last accessed on September 16, 2007).

area should be no less than 20 square meters.

- (5) Migrants with college education, who have been employed for at least three years, participated in social insurance and have home ownership in the city.

Current *hukou* regulations in Wuxi are, to some extent, more relaxed. For example, for investors, the tax requirement has been reduced to 50,000 *yuan* and the home ownership requirement has been removed. Similarly, the tax requirement for private entrepreneurs has been reduced to 10,000 *yuan*. Also, the education requirement for the fifth type of migrants above has been lowered to technical secondary school. In addition, two other types of migrants are added to the above five groups. One is entrepreneurs with overseas experiences, and the other is migrants who have been employed and have participated in basic pension insurance for 10 years, and have purchased home with per capita construction area of no less than 20 square meters in Wuxi.

However, Wuxi *hukou* is still largely unavailable to the vast majority of economic migrants. Investors, entrepreneurs and skilled professionals account for a very small proportion of economic migrants. Requirements of home ownership and social insurance participation render most temporary migrants ineligible for Wuxi *hukou*. Moreover, the threshold for home buyers has actually been raised rather than lowered. Currently, the size of home bought to qualify for Wuxi *hukou* is 100 square meters. In other words, *hukou* control for economic migrants in Wuxi is still tight and in some aspects tighter

than before.

In 2009, the Wuxi government started to introduce a new form of Residence Card, which is something between the Temporary Residence Card<sup>11</sup> and the formal Wuxi *hukou*. The threshold of Residence Card is lower than that of Wuxi *hukou*. For example, by purchasing a home less than 100 square meters, a migrant may be qualified for the Residence Card, but not Wuxi *hukou*. Similarly, a stable job and two years of basic pension insurance participation may qualify someone for the Residence Card<sup>12</sup>, but not Wuxi *hukou*. Migrants with Residence Card can enjoy many benefits just like local residents, such as free family planning services, free employment training, social insurance, and free 9-year mandatory education for their children in Wuxi. This could be seen as a big step in *hukou* reform, which provides qualified migrants more resources in the city. However, this also suggests that the full Wuxi *hukou* might still not be available to most temporary migrants in the near future. Meanwhile, it is still too early to tell how effective such reform is. In 2007, the Residence Card was tested in the New District. Surprisingly, only a few migrants applied for the Residence Card. Two reasons may have contributed to the less than enthusiastic reaction. First, not many migrants are qualified. Second, some of the qualified migrants would rather change their *hukou* to Wuxi in the

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<sup>11</sup> Temporary migrants in Chinese cities are required to obtain a Temporary Residence Card as identification. See also Chapter 2, section 2.2 on *hukou* reforms.

<sup>12</sup> Source: <http://www.hukouwang.com/html/84/863.htm> and <http://old.wuxi.gov.cn/open/gazette/rules/189531.shtml> (last accessed on June 24, 2010).

near future when they become eligible<sup>13</sup>.

Lack of local *hukou* makes temporary migrants disadvantaged in many aspects of their living in Wuxi, such as job hunting, home purchase and participation in social insurance. For example, some jobs in public sectors are reserved for local residents. Similarly, temporary migrants are not eligible for subsidized housing in the city. How *hukou* status puts additional constraints on migrants' living in the city will be discussed in detail later in the chapter. I now turn to discussing the survey I conducted in Wuxi.

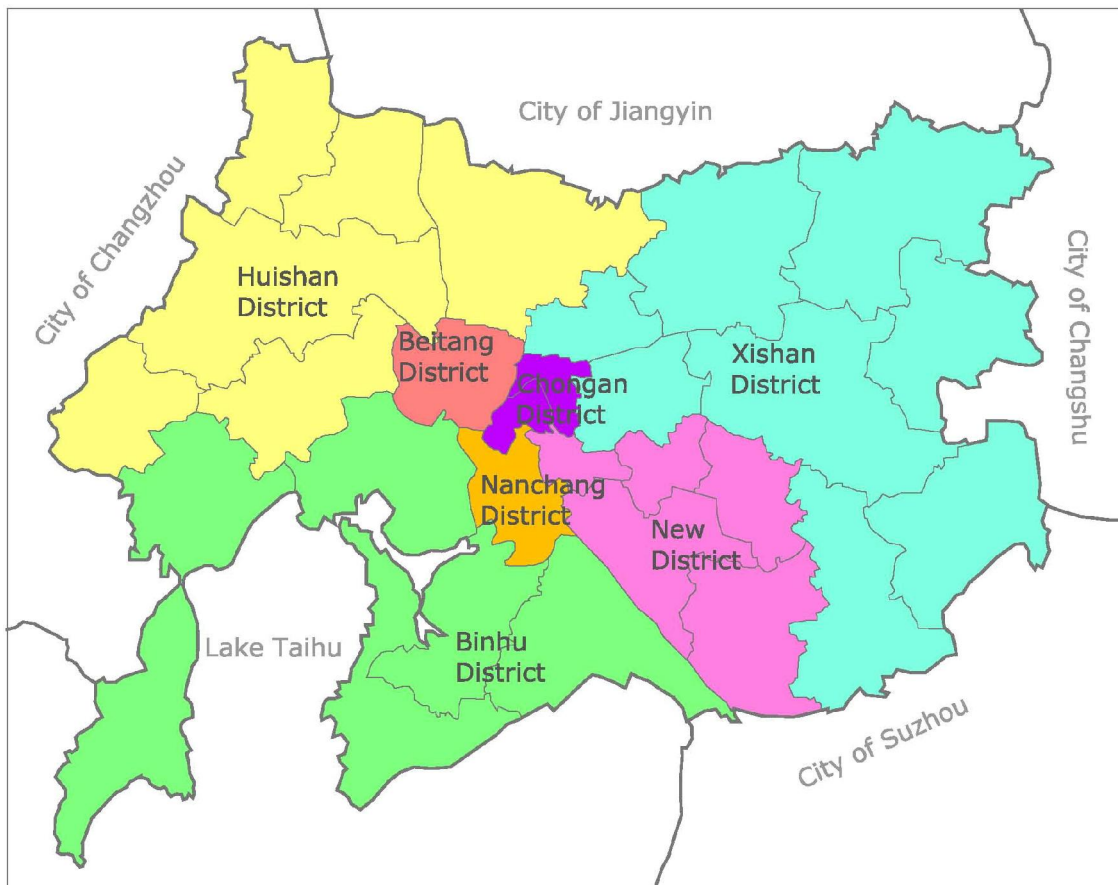
## **6.2 The survey design**

Conducted between July and September of 2008, my questionnaire survey included 25 permanent migrants and 79 temporary migrants who originate from other provinces (not Jiangsu). Time and budget constraints limited the sample to about 100, and I decided to include more temporary migrants than permanent migrants because in Wuxi temporary migrants considerably outnumber permanent migrants and the survey's main objective was to understand the former's settlement intention. In addition, the survey focuses only on migrants for economic reasons and not migrants for family and other reasons. The selection criteria for participants in the survey are migrants: (1) who moved to Wuxi after 1985 (the turning point in China's *hukou* reform) from other provinces; (2)

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<sup>13</sup> Source: [http://jssn.xinhuanet.com/xin\\_wen\\_zhong\\_xin/2006-08/31/content\\_7920863.htm](http://jssn.xinhuanet.com/xin_wen_zhong_xin/2006-08/31/content_7920863.htm) (last accessed June 25, 2010).

who have lived in Wuxi for at least six months; (3) who are 15 years old or older at the time of the survey; and (4) who migrated for economic reasons (job related). Migrants who moved originally for education and stayed for work after graduation are considered economic migrants. In the analysis, I focus on temporary migrants.



**Figure 6.2 Urban Districts of the City of Wuxi**

Since a complete list of temporary migrants in Wuxi (and for that matter in any

Chinese city) is not available<sup>14</sup>, it is very difficult to obtain a random sample. In order to produce a sample as representative as possible, I have designed mechanisms in order to reach a large spectrum of temporary migrants and to minimize the possibility of over-representation by certain segments of the migrant population. First, the survey was carried out in districts in both the central city and urban outskirts – Nanchang, Binhu and New District<sup>15</sup>. Generally speaking, white-collar jobs and large business companies are concentrated in the central city whereas manufacturing and small businesses are concentrated in the outskirts. The housing price in the central city is much higher than that in urban outskirts. By selecting migrants from both the central city and outskirts, I included various factories, businesses, and residential areas and increased the chance of reaching a large spectrum of migrants. Second, I allocated the proportions of the sample based roughly on the geographic distribution of registered temporary migrants across the city. In Wuxi, the vast majority of temporary migrants live in the outskirt districts (Figure 6.2 and Table 6.2). Among the 1.6 million registered temporary migrants<sup>16</sup> (July 2008), 24.0 percent live in the New District where the High-tech Industrial Development Zone

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<sup>14</sup> Temporary migrants are required to register to get the Temporary Residence Card, but many of them do not. Thus, there is not a central authority in the city that has a complete list of temporary migrants.

<sup>15</sup> The New District is not an administratively official urban district but a special district under Binhu District. It is where a state-level high-tech industrial development zone and a few other industrial parks are located. A large proportion of temporary migrants in Wuxi also live there. Thus, it is often listed as a separate district, such as in Wuxi statistical yearbooks. I do the same in this dissertation.

<sup>16</sup> According to the estimation of the Office of Migrant Management, about 30 percent of temporary migrants in Wuxi are not registered.

and many foreign and joint-venture enterprises are located. Some 56.6 percent live in three other outskirt districts: Xishan, Huishan and Binhu. A further 19.4 percent live in the central city: Chongan, Nanchang and Beitang districts. Accordingly, I allocated large proportions of the sample to Binhu and New District and a smaller proportion to Nanchang. Within each district, several communities are selected for the survey. In each community, I selected temporary migrants randomly in the street or at their residential places to participate in the survey.

**Table 6.2 Number of registered temporary migrants in Wuxi, July 2008**

Urban District	Location	<i>Hukou</i> population (1,000)	Temporary migrants	
			Number (1,000)	Percent
<b>Chongan</b>	Central city	187	91	5.8
<b>Nanchang</b>	Central city	333	102	6.5
<b>Beitang</b>	Central city	258	110	7.1
<b>Xishan</b>	Outskirt	402	300	19.2
<b>Huishan</b>	Outskirt	399	300	19.2
<b>Binhu</b>	Outskirt	472	283	18.2
<b>New District</b>	Outskirt	308	374	24.0
<b>Total</b>		2,359	1,560	100.0

Sources: Wuxi Statistical Yearbook 2008; Office of Migrant Management in Wuxi.

Note: *Hukou* population is 2007 year-end data.

Table 6.3 summarizes the main characteristics of temporary migrants in the survey. The majority of temporary migrants are young, male, and married. They are highly concentrated in the 15-39 age group (81.0 percent); their sex ratio is 119.4; and 64.6 percent of them are married. The vast majority of temporary migrants are from rural areas



with agricultural *hukou*. Close to 95 percent of them are working, among whom 33.3 percent are self-employed. Among working migrants, 53.3 percent engage in industrial work, and 38.7 percent engage in commerce and services work. Temporary migrants are highly concentrated in the education level of junior secondary (54.4 percent), followed by senior secondary (24.0 percent). These results are largely consistent with the general characteristics of temporary migrants in Wuxi documented by the 2000 census and the 2007 Wuxi Migrant Survey conducted by the Wuxi Bureau of Population and Family Planning and Shanghai Academy of Social Science (2007 Wuxi Migrant Survey, hereafter)<sup>17</sup>. One exception is that the educational attainment of migrants in my survey is somewhat higher than that of migrants in the 2007 Wuxi Migrant Survey. This discrepancy may come from the fact that the 2007 Wuxi Migrant Survey included not only migrants in the urban districts of Wuxi but also those in the two county-level cities, Jiangyin and Yixing. According to the 2000 census, migrants in the urban districts of Wuxi, on average, are better educated than those in Jiangyin and Yixing. Another possible reason is that a considerable proportion of migrants in my survey are working in high-tech and foreign and joint-venture enterprises located in the New District. These migrants may on average have higher educational attainment than temporary migrants in Wuxi as a whole. Overall, my survey yields a reasonably good migrant sample.

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<sup>17</sup> The 2007 Wuxi Migrant Survey includes 4,344 temporary migrants for economic reasons, who are over 15 years old, moved to Wuxi for work-related reasons and have stayed for more than 6 months. The survey covers not only the City of Wuxi, but also two county-level cities, Jiangyin and Yixing.

**Table 6.3 Characteristics of temporary migrants in the Wuxi survey**

Temporary Migrants	
<b>Age</b>	
Mean Age	31.0
15-39 (%)	81.0
<b>Sex ratio (M/F)</b>	119.4
<b>Marital status (%)</b>	
Single	34.2
Married	64.6
Divorced	1.3
<b>Agricultural hukou (%)</b>	79.7
<b>Education (%)</b>	
Primary and below	12.7
Junior secondary	54.4
Senior secondary	24.0
College and above	8.9
<b>Employment status (%)</b>	
Not employed	5.1
Employed	63.3
Self-employed	31.6
<b>Occupation (%)</b>	
Professional	8.0
Commerce	18.7
Services	20.0
Industrial	53.3

### 6.3 Temporary migrants' settlement intention

I included in the survey two specific questions on temporary migrants' settlement intention: (1) will you stay permanently in Wuxi if there were no constraints, and (2) will you stay permanently in Wuxi under current conditions? Here, constraints refer to factors that prevent migrants from realizing their preferred choice. For example, some migrants may prefer to settle down in Wuxi but they have to return because they cannot get Wuxi

*hukou* or they have family obligations in the home village. In this section, I will first compare migrants' different responses to the above two questions, and then I will look into the reasons behind their choices.

**Table 6.4 Temporary migrants' settlement intention in the Wuxi survey**

If no constraints	Under current conditions				
	Stay permanently	Go back to the origin	Go to other places	No clear settlement intention	Total (%)
Stay permanently	23 (29.1)	4 (5.1)	0 (0.0)	11 (13.9)	38 (48.1)
Go back to the origin	0 (0.0)	23 (29.1)	0 (0.0)	1 (1.3)	24 (30.4)
Go to other places	0 (0.0)	0 (0.0)	1 (1.3)	0 (0.0)	1 (1.3)
No clear settlement intention	2 (2.5)	0 (0.0)	0 (0.0)	14 (17.7)	16 (20.2)
Total	25 (31.6)	27 (34.2)	1 (1.3)	26 (32.9)	79 (100.0)

Note: Percentages are in parentheses.

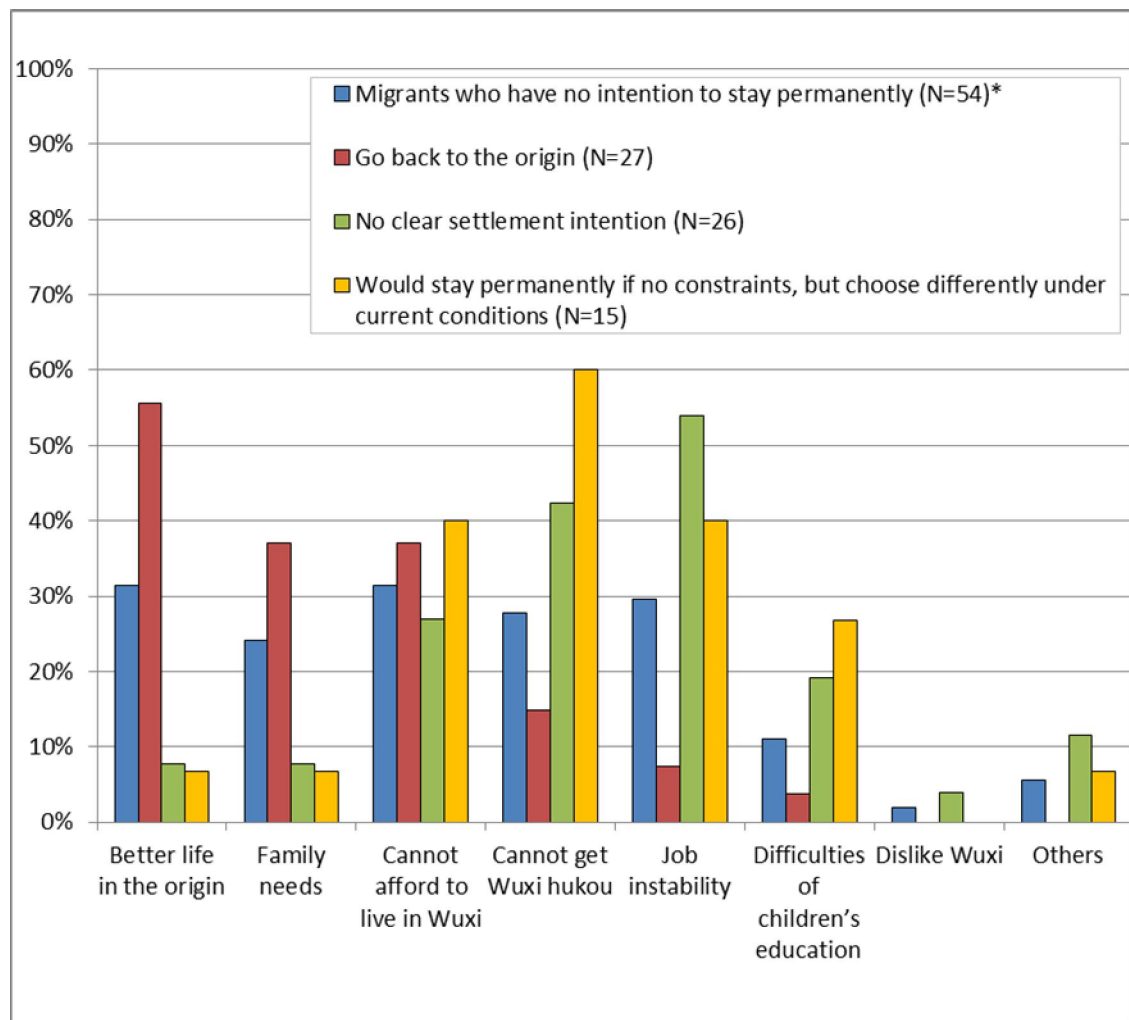
As shown in Table 6.4, if there were no constraints, about half of the respondents (48.1 percent) would like to stay permanently in Wuxi, 30.4 percent would like to go back to their origins, and 20.2 percent have no clear settlement intention. Under current conditions, 31.6 percent of the respondents have intention to stay permanently in Wuxi, 34.2 percent have intention to go back to their origins, and 32.9 percent have no clear settlement intention. Therefore, the major difference in migrants' responses to the two questions is that the proportion of migrants who have intention to stay permanently under current conditions is considerably smaller than that if there were no constraints. Among

the 38 respondents who would stay permanently if there were no constraints, 15 (39.5 percent) choose differently under current conditions. Interestingly, among the above 15 respondents, only 4 (26.7 percent) change their choice to “go back to the origin” and 11 (73.3 percent) change their choice to “have no clear intention”. This suggests that because of the constraints those migrants are hesitant to settle down in Wuxi but they may not return to their origins. If the constraints are removed, they may choose to stay. Under current conditions, the proportion of respondents who intend to go back to their origins is 34.2 percent, larger than but not considerably larger than that without constraints (30.4 percent). Thus, about 30 percent (23) of the respondents intend to go back to their origins regardless of whether present constraints are removed. In that sense, these migrants are truly temporary. Among the remaining 56 respondents, most (55) have potential to stay permanently, though about half (26) of them still have no clear intention to settle down in the city.

Looking into the reasons behind migrants’ choices further confirms the above observations. To help understand the possible factors affecting migrants’ settlement intention, I asked this question to respondents who did not choose “stay permanently” under current conditions: why do you not want to settle down in Wuxi under current conditions? Because it is common for migrants to have multiple considerations in their decision making, the respondents are allowed to choose as many reasons as they want,

from seven possible reasons (see Figure 6.3), which include factors in their origins and factors in the destination city. Figure 6.1 illustrates the choices of migrants by settlement intention. For migrants who currently have no intention to stay permanently in Wuxi (54 out of the 79 respondents), the common reasons are “better life in the origin” (31.5 percent), “cannot afford to live in Wuxi” (31.5 percent), “job instability” (29.6 percent), “cannot get Wuxi *hukou*” (27.8 percent), and “family needs” (24.1 percent). As expected, both their living conditions in the origin and their migration experience in the destination city are important considerations in migrants’ decision making.

Different groups of migrants, however, have very different reasons behind their choices. For migrants who intend to go back to their origins under current conditions (27 out of the 79 respondents), “better life in the origin” is the most popular reason (55.6 percent), followed by “family needs” (37.0 percent), “cannot afford to live in Wuxi” (37.0 percent) and “cannot get Wuxi *hukou*” (14.8 percent). It appears that situations in their origins have bigger effects on these migrants’ choices than their experience in the destination. In other words, migrants who clearly intend to return do so because of attractiveness of the origin more so than dissatisfaction with the destination.



**Figure 6.3 Reasons for migrants having no intention to stay permanently in Wuxi**

Note: \*: Including migrants who want to go back to their origins, go to other places, and have no clear settlement intention.

For migrant who have no clear settlement intention under current conditions (26 out of the 79 respondents), the underlying factors are very different. The common constraints are “job instability” (53.9 percent), “cannot get Wuxi *hukou*” (42.3 percent), “cannot afford to live in Wuxi” (26.9 percent), and “difficulties of children’s education” (19.2 percent). In other words, it is the constraints in the city that make these migrants hesitant to settle down. Therefore, it is reasonable to believe that if the city provides a better living environment for these migrants, many of them will choose to stay. This is consistent with Zhu and Chen’s (2009) findings on the settlement intention of temporary migrants in Fujian province. As temporary migrants’ living situation in the cities improved, the proportion of migrants who had no clear settlement intention significantly declined between the 2002 and 2006 surveys and the proportion of migrants who intended to settle down in the cities significantly increased.

For migrants who would like to stay permanently in Wuxi if there were no constraints but choose differently under current conditions (15 out of the 79 respondents), again the constraints are largely about the destination city rather than their origins. Specifically, 60.0 percent of them mention “cannot get Wuxi *hukou*”, followed by “cannot afford to live in Wuxi” (40.0 percent), “job instability” (40.0 percent) and “difficulties of children’s education” (26.7 percent). Factors of their origins, such as “better life in hometown” (6.7 percent) and “family needs” (6.7 percent), are relatively

minor in comparison.

To sum up, about one-third of the respondents in the Wuxi survey are truly temporary in nature – they plan to return to their origins regardless of the conditions in the destination. About one-third of the respondents intend to stay permanently in the city despite the fact that they do not have local *hukou*. And, another one-third of the migrants have no clear settlement intention, but that reflects largely constraints in destination city, such as high living cost, job instability, *hukou* status, and difficulties of children's education, rather than a strong intention to return to their origins.

#### **6.4 Migrants' settlement intention and constraints in the city**

In this section, I will discuss the constraints in the city that may affect migrants' settlement intention. *Hukou* status, job instability, low income, poor housing conditions, low coverage in social insurance, and difficulties of children's education are discussed. The relationships between *hukou* status and other constraints are also discussed.

##### **6.4.1 *Hukou* status**

Although not all temporary migrants will become permanent migrants even if there is no *hukou* system, the analysis below indicates that the lack of local *hukou* is still a big constraint on temporary migrants' lives in the destination city.



The survey asks the question whether migrants' *hukou* status has caused any inconvenience in their lives in Wuxi and the respondents can choose more than one answer. Only 35.4 percent of the respondents state that there is no inconvenience caused by their *hukou* status (Table 6.5). For the remaining 64.6 percent, the lack of local *hukou* does cause inconvenience. The respondents' lack of Wuxi *hukou* poses difficulties for children's education (36.7 percent), job hunting (35.4 percent), social benefits or insurance (32.9 percent) and even home purchase (29.1 percent, see Table 6.5). These constraints and the relationship between these constraints and migrants' *hukou* status will be discussed in detail later in this chapter.

**Table 6.5 Inconvenience due to the lack of Wuxi *hukou* (%)**

	None	Job hunting	Children's education	Home purchase	Social benefits/insurance	Others
2008 survey	35.4	34.2	36.7	29.1	32.9	3.8

Note: N= 79. More than one answer can be chosen.

**Table 6.6 Temporary migrants' interest in changing their *hukou* to Wuxi (%)**

	Not interested	Change for respondent only and not family	Change for the whole family	Hard to decide	Total
2008 Survey	31.6	11.4	40.5	16.5	100.0

Note: N= 79

Consistent with the above results, more than half of the respondents in the survey are willing to change either their own *hukou* alone (11.4 percent) or the *hukou* of the

whole family (40.5 percent) to Wuxi if given the opportunity (Table 6.6). Among the former, 77.8 percent are single and many of their parents have no plan to leave their hometown and thus there is no need to change their parents' *hukou* to Wuxi. These results suggest that migrants' *hukou* status is a significant constraint on their settlement intention. This is also reflected in another result in the survey. As mentioned earlier, "cannot get Wuxi *hukou*" is the most common constraint for migrants who would stay permanently if there were no constraints but choose differently under current conditions. This also implies that *hukou* reforms would significantly increase temporary migrants' settlement intention.

#### **6.4.2 Job instability**

Many existing studies indicate that whether migrants have a stable job in the city is an important factor that affects their settlement intention (e.g. Wei and Zhu 2008; Zhao 2006; Zhu 2007; Zhu and Chen 2009). My survey shows that job instability is indeed one of the most important constraints on migrants' settlement in Wuxi as reported by migrants who have no intention to settle down under current conditions (Figure 6.1). Among the 79 respondents, 32.9 percent have had working experience in other places (other than their hometowns) before going to Wuxi and 40.5 percent have changed one or more jobs in Wuxi. The average number of jobs the respondents have had in Wuxi is 1.6 during their

average 4.4 years of stay. Without a stable job, it is hard for migrants to settle down in the city.

Migrants' *hukou* status, educational attainment and skills, and the fluctuation of labor market are all contributing factors to the unstable nature of migrants' employment. Without a local *hukou*, temporary migrants do not have access to certain types of jobs, which are reserved for local residents. Although such restrictions have been gradually reduced in recent years in Wuxi, some jobs in the public sectors, especially those positions in government or civil service, are still only open to local residents or people with university and above education<sup>18</sup>. Currently, those are considered one of the most stable jobs available in the labor market. Unfortunately, most of the temporary migrants are not eligible. In general, temporary migrants' educational attainment is relative low. In the survey, only 2.5 percent of the respondents have university and above education and the vast majority of them only have junior secondary and below education. As a result, most temporary migrants work in private sectors and work on labor intensive production lines. 84.0 percent of the currently employed respondents work in foreign and joint-venture enterprises or private enterprises. Most of the enterprises in the private sector are small and in labor-intensive industries (Zhu 2007). To ensure they can adapt to the market demand change quickly and maintain a flexible labor pool, these enterprises

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<sup>18</sup> Source:  
<http://www.wxrsks.com/Wxkszx/infodetail/?InfoID=33276fff-8076-4852-853e-a35888634ca2&CategoryNum=001001> (last accessed on June 22, 2010)

generally will not sign long-term contracts with the employees. When the demand for the products declines, migrants working on production lines are among the first to be laid off. Therefore, although the majority of the employed respondents (74.0 percent) in the survey have signed contracts with their employers, they do not necessarily have a secured long-term job. The unstable nature of migrants' employment is not only caused by the *hukou* system, but also the result of migrants' human capital and the fluctuation in labor demand.

#### **6.4.3 Low income**

“Cannot afford to live in Wuxi” is another important factor that pushes migrants away from settling down. In recent years, temporary migrants' income level has increased fairly fast. It is reported that the average per capita monthly income of rural temporary migrants in China has more than tripled from 454 *yuan* in 2002 to 1340 *yuan* in 2008<sup>19</sup>. Thus, temporary migrants' average living standard in the city has been improving over time. However, it is still difficult for them to set up a home and support the living of the whole family in the city. The average monthly income of the respondents in my survey is 1440 *yuan*, slightly higher than the national average. Considering the high cost of living in Wuxi, however, this is not a big number. The average per capita monthly consumption

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<sup>19</sup> Sources: <http://www.china.com.cn/chinese/2005/Feb/787325.html> (last accessed on June 13, 2010); <http://economics.dwnnews.com/news/2010-03-19/55729453.html> (last accessed on June 13, /2010).

expenditure of urban residents in Wuxi was 1130 *yuan*, 1.2 times the national average (937 *yuan*) in 2008. Meanwhile, the respondents in the survey send on average 246 *yuan* remittance back per month, which means that they hardly have enough money to support themselves, let alone families living with them. Under such condition, many migrants may consider the hometown as their permanent home and choose to minimize their spending in the destination city and save as much as possible for spending in the hometown either by their families or for the future after they return.

#### **6.4.4 Housing conditions**

To settle down in the city, migrants need to have a permanent “home” for living, either owned or rented. However, this is not easy to achieve. Owning a home in the city is beyond most temporary migrants’ reach, due to their *hukou* status and low income. Temporary migrants’ access to urban housing market is restricted by their *hukou* status. In the survey, 29.1 percent of the respondents report that their *hukou* status has caused inconvenience on home purchase in Wuxi. Although the welfare housing system for urban residents ended in 1999, currently temporary migrants do not have equal access to the urban housing market as local residents. For example, some local residents can get discounted or subsidized housing price through their employers, especially those in state-owned sectors. The Economic and Comfortable Housing project, which aims at

providing affordable housing to low- and medium- income groups, is exclusively for local residents (Wu 2002). In addition, temporary migrants are not eligible to apply for the low-rent housing provided by the government to qualified urban households (those below the minimum living standard). Currently, commercial housing market is the only option open to everyone, regardless of *hukou* status (Jiang 2006; Wu 2002). However, most temporary migrants cannot afford to purchase an apartment at market rate in the city. For example, in 2008 the average housing price in Wuxi was 5308 *yuan* per square meter for commercial housing and 5014 *yuan* per square meter for secondary housing<sup>20</sup>. Even a small 60-square-meter apartment would cost more than 300,000 *yuan*. With an average monthly income of 1440 *yuan*, it would take temporary migrants more than 17 years to save for such an apartment without spending a penny of their income. Therefore, it is almost impossible for an average temporary migrant to buy an apartment in the city.

Even if temporary migrants have the means to purchase commercial housing, they still face constraints on getting mortgage from banks. In early 2010, the central government released some new real estate policies to curb the soaring housing prices in recent years. One of these policies is to put restrictions on mortgages for people without local *hukou*<sup>21</sup>. Currently, to get housing mortgage, people without local *hukou* have to show evidence that they have participated in social insurances for at least one year in that

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<sup>20</sup> Source: <http://www.wxhouse.com/yanjiu/14841.html> (last accessed on June 15, 2010)

<sup>21</sup> Source: [http://www.gov.cn/zwggk/2010-04/17/content\\_1584927.htm](http://www.gov.cn/zwggk/2010-04/17/content_1584927.htm) (accessed on June 14, 2010)

city. This policy is intended to curb real estate speculation, but it also increases constraints on temporary migrants, since the majority of them are not included in the social insurance scheme in the city (see next section for a detailed discussion). Thus, the threshold for temporary migrants to obtain housing mortgage is elevated. Meanwhile, since the majority of temporary migrants (69.6 percent in the survey) do not participate in the Housing Provident Fund system<sup>22</sup>, they cannot enjoy the lower loan interest rate and other related benefits when getting mortgage. Temporary migrants experience many disadvantages in home purchase due to institutional restrictions associated with their *hukou* status and are much less likely than permanent migrants and local residents to own a home in the city (Huang and Clark 2002).

**Table 6.7 Sources of housing for temporary migrants in the Wuxi survey (%)**

	<b>Purchased home</b>	<b>Rent alone or with family</b>	<b>Rent and share with other people</b>	<b>Provided by employers</b>	<b>Total</b>
2008 survey	2.5	43.0	44.3	10.1	100.0

Note: N=79

Most temporary migrants do not own a home in the city. In the survey, only 2.5

<sup>22</sup> The Housing Provident Fund system was established in 1995. It is opened to all eligible employed staff and workers in the city. Once participating in the system, the employee needs to deposit a certain proportion of his/her monthly income (usually 4-10%) into a special account in a state owned bank. The employer provides a one-for-one match for the amount that the employee deposits into the account. The employee can withdraw money from the account to purchase housing (Buttimer, Gu and Yang. 2004). More importantly, the government provides a series of preferential policies on Housing Provident Fund Loan, such as lower interest rate and down payment. Thus, participants of the fund enjoy many advantages in housing purchase over those non-participants.

percent of the respondents have purchased apartments in Wuxi, 43.0 percent rent alone or with families, 44.3 percent rent and share with people other than families, and 10.1 percent live in dorms provided by their employers (Table 6.7). Renters who share the dwelling with non-family individuals and migrants who live in dorms tend to have higher mobility than those who own or rent with family members. In the survey, the former accounts for 54.4 percent. In other words, for the majority of migrants, their housing is temporary rather than permanent.

Meanwhile, the housing conditions of temporary migrants are relatively poor. In the survey, the average per capita living area for the respondents is 14.9 square meters, less than half of the number (33.4 square meters) for local residents in Wuxi in 2008<sup>23</sup>. Also, many of them rent private homes in urban fringe without kitchen (36.7 percent) and/or bathroom (29.1 percent). Unstable and poor housing conditions make it less likely for temporary migrants to settle down in the city.

#### **6.4.5 Social insurance**

Lack of social insurance also makes permanent settlement in the city difficult. Social insurance, such as pension, medical, unemployment and work-related injury insurances, provides people basic protection in the case of retirement or other adverse

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<sup>23</sup> Source: <http://efw.cn/news/n34856.html> (accessed on June 13, 2010).



circumstances. According to China's Labor Law implemented in 1995, all employed workers in the city are expected to participate in the social insurance scheme. However, participation is not mandatory (Nielsen et al. 2005). Without local *hukou*, many temporary migrants do not have access to social insurance. In the survey, 32.9 percent of the respondents report that their *hukou* status has affected their eligibility of enjoying social benefits and insurance. In the 2007 Wuxi Migrant Survey, 49.7 percent of temporary migrants want the government to establish a social insurance system for migrants (Zhou 2007).

Thanks to the increasingly strict enforcement of Labor Law and Labor Contract Law in recent years, the proportion of employed temporary migrants in Wuxi who have social insurance is in fact quite high. In the survey, 64.0 percent of the employed respondents have basic pension insurance, 62.0 percent have medical insurance, 58.0 percent have work-related injury insurance, and 50.0 percent have unemployment insurance. However, a large proportion of the respondents (31.6 percent) are self-employed, who are unlikely to participate in social insurance. In theory, qualified self-employed temporary migrants in Wuxi can participate in social insurance, including basic pension insurance, medical insurance and unemployment insurance, provided they paying the required premiums. However, they must follow a series of procedures. To apply for social insurance, for example, they must have a Certificate of Self-employment,

which requires that they have the Temporary Residence Card, Migrant Work Permit and Pre-employment Education Certificate<sup>24</sup>. More importantly, the insurance premiums are costly. In 2007, to participate in basic pension, medical and unemployment insurances, self-employed migrants were required to pay at least 537 *yuan* per month<sup>25</sup>, which is a considerable proportion of an average migrant's monthly income. Also, self-employed migrants are solely responsible for the insurance rather than enjoying matching contributions from employers. As a result, most self-employed migrant opt to not participate in social insurance. Therefore, temporary migrants as a whole still have a low coverage of social insurance in Wuxi.

Putting together temporary migrants' job instability, low income and temporary housing, and lack of social insurance, they are in much more vulnerable position than local residents. Research has pointed out that the city's lack of social provisions to rural migrants compels them to consider the countryside their permanent home (Fan 2009; Fan and Wang 2008). Also, many rural migrants want to retain their land in the home village as an insurance against loss of jobs in the city (Zhu 2007). In the survey, I asked the question whether the respondents will change their *hukou* to Wuxi if they are eligible to do so. 31.6 percent of them are not interested and 16.5 percent feel hard to decide (Table 6.6). I further asked those migrants why they are not interested in/feel hard to decide to

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<sup>24</sup> See <http://lss.wuxi.gov.cn/ggcy/bszn/shbx/930423.shtml> (accessed on 06/20/2010)

<sup>25</sup> See <http://lss.chinawuxi.gov.cn/ba12/f/02/1016978.shtml> (accessed on 06/21/2010)

change their *hukou*. 21.1 percent of them indicate they want to retain their land in the home village (Table 6.8). Unless the city provides them more protection, they would not feel confident to give up their land in the home village and move to the city permanently.

**Table 6.8 Reason for not interested/hard to decide to change *hukou* to Wuxi (%)**

	No difference	Retain farmland in hometown	Go back after making some money	Plan to go to other places	Others
Not interested (N=25)	40.0	16.0	36.0	4.0	4.0
Hard to decide (N=13)	7.7	30.8	38.5	0.0	23.1
All (N=38)	30.0	21.1	36.8	3.6	15.5

#### 6.4.6 Children's education

Better education may give a child a brighter future. Traditionally, Chinese families pay much attention to children's education. However, migrant children do not have equal access to the schools as local urban children, although schools in the city are generally better than those in their home village. Lack of access to education is also a contributing factor to the unsettled nature of temporary migrants. In the survey, among the respondents who would stay permanently in Wuxi if there were no constraints but choose differently under current conditions, 26.7 percent report that difficulties of children's education is one of the constraints behind their choice.

Compared to other constraints in the city discussed above, children's education is

not a major one (Figure 6.1). This may be attributable to the government's effort to improve migrant children's education in recent years. In 2003, the State Council issued the Notice of Improving Education of Children of Rural Migrant Workers, which clearly states that the governments of destination cities and public schools should be responsible for providing the 9-year mandatory education to migrants' children<sup>26</sup>. Wuxi implemented the new policy accordingly in 2004<sup>27</sup>. According to the 2007 Wuxi Migrant Survey, 77.3 percent of the school-age children of temporary migrants are enrolled in schools in Wuxi, among which 89.6 percent are in public schools (Zhou, 2007). Moreover, the vast majority of temporary migrants are satisfied with the education quality and facility of their children's school.

However, this does not mean migrant children are now treated the same as local urban children. In the survey, 44.4 percent of the respondents who have school-age children indicate that their *hukou* status has caused some inconvenience on their children's education. For example, migrant children need to apply for schools and the application may be rejected if the schools do not have room for them<sup>28</sup>. In 2006, the Wuxi government lifted the tuition and incidental fees for mandatory education according to the newly modified China Mandatory Education Law. However, only qualified migrant children can enjoy free education as local students. To get tuition and fee waiver, migrant children need to be enrolled in school in Wuxi for at least two years and their parents need to have a stable job, a

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<sup>26</sup> Source: [http://www.gov.cn/zwggk/2005-08/14/content\\_22464.htm](http://www.gov.cn/zwggk/2005-08/14/content_22464.htm) (last accessed on June 22, 2010).

<sup>27</sup> Source: <http://www.wuxi.gov.cn/open/gazette/files/22556.shtml> (last accessed on June 22, 2010)

<sup>28</sup> Source: <http://www.wuxi.gov.cn/open/gazette/files/22556.shtml> (last accessed on June 22, 2010).

permanent place for living, and stable income in Wuxi and have followed the family planning policy<sup>29</sup>. Since 2009, children of migrants with Residence Card have been treated the same as local students. Children of other migrants still need to apply for school, although they get tuition and fee waiver automatically if admitted. Thus, migrant children are getting better education opportunity in the city, but many of them are still not treated the same as local students.

## 6.5 Summary

Using Wuxi as a case study, this chapter examines temporary migrants' settlement intention in the city as well as the underlying factors affecting their choices. The analysis indicates that about one-third of temporary migrants in Wuxi are truly temporary in nature. They intend to go back to their origins under all circumstances. One-third of the migrants have intention to settle down in the city and the remaining one-third have no clear settlement intention. But many of those migrants without clear settlement intention are potential settlers too because they are hesitant to stay due to the constraints in the city. It is reasonable to believe that the majority of temporary migrants would choose to stay if the city can provide them a better living environment.

*Hukou* status, job instability, low income, poor housing conditions, lack of social insurance and difficulties of children's education are major constraints that make it

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<sup>29</sup> Source: <http://www.wuxi.gov.cn/open/zfwj/szfwj/28412.shtml> (last accessed on June 22, 2010)

difficult for migrants to settle down in the city. *Hukou* status is a significant constraint, though not the only constraint, that temporary migrants face in the city. Due to their relatively low human capital and the fluctuation of labor demand, temporary migrants' unstable employment and low income are, to some extent, expected. Thus, *hukou* reforms alone are insufficient to turn temporary migrants into permanent migrants. However, lack of local *hukou* puts additional constraints on temporary migrants' lives in the city, including job hunting, home purchase, social insurance and children's education. More inclusive *hukou* reforms would help improve migrants' living standards in the city and in turn increase their settlement intention.

In recent years, the government has already made some efforts to improve migrants' living in the city, such as strict enforcement of Labor Contract Law and expanded education provision to migrant children. Migrants' living standards have been improving over time. Recently, the Wuxi government introduced the new Residence Card so that qualified migrants can enjoy more benefits similar to local residents. However, in general temporary migrants still face many constraints in the city.

## Chapter 7

### Conclusions

#### 7.1 Findings

My dissertation has focused on permanent migration and temporary migration in China and their changes over time. The coexistence of market mechanisms and institutional forces in China complicates the understanding of migration. I highlight two factors that have shaped the differentials between permanent migrants and temporary migrants – *hukou* reforms and the maturation of migration streams. First, if *hukou* reforms have made urban citizenship more inclusive by lowering the barriers for rural Chinese to become permanent migrants (and residents) in cities, the gaps between permanent migrants and temporary migrants would narrow. But if the actual implementation of *hukou* reforms targets only the most competitive migrants and ignores the rest, the distances between permanent migrants and temporary migrants would remain large or even increase. Second, migration theory predicts a negative relationship between maturation of migration streams and migration selectivity. Over time, knowledge, experience and social networks reduce migration selectivity, and as a result a larger spectrum of the rural population can become migrant workers and would accordingly widen the gaps between permanent migrants and temporary migrants.

The empirical analysis shows that between 1990 and 2000 the gaps between inter-provincial permanent migrants and temporary migrants did not narrow but in most aspects had widened. The magnitude of temporary migrants has increased by many folds, whereas the number of permanent migrants has remained about the same. Over time, permanent migrants are increasingly represented by young, highly educated individuals and those in prestigious occupations. Selectivity of temporary migrants, on the other hand, has declined. The improvement of educational attainment among temporary migrants is slower than the general population, and much slower than permanent migrants. Over time, permanent migrants are highly and increasingly represented in high-prestige occupations, such as government, professional and administrative work, while temporary migrants continue to concentrate in occupations of low pay and status, such as industrial and commerce/services work. *Hukou* reforms appear to have made it easier for marriage migrants – include rural-urban marriage migrants – to become permanent migrants. But other than marriage migration there is little evidence that the reforms have lowered *hukou* barriers. At the same time, a larger spectrum of population, including the less skilled and educated, has joined the temporary migration streams. The net result of the above is a persistence of a two-track migration system, where permanent migrants increasingly assume the position of social and economic elites and temporary migrants the disadvantaged and disenfranchised.



To assess the relative importance of factors that contribute to the differentials between the two groups of migrants, I have estimated logistic regression models to predict the likelihood of permanent migration versus temporary migration. The results indicate that migration reason and educational attainment largely determine migrants' chances of obtaining *hukou* in the destination. INDUSTRY/BUSINESS (seeking jobs in industry, commerce and service sectors) is the most powerful variable and is negatively associated with permanent migration. Having college and above education significantly increases migrants' likelihood of being permanent migrants.

To evaluate the role of *hukou* status in migrants' occupational attainment, I have also estimated multinomial logistic regression models to compare the likelihood of rural-urban permanent and temporary migrants being in each occupational category. The results suggest that the differentials in demographic and socioeconomic characteristics cannot fully explain the differentials in migrants' occupational attainment. After controlling for other variables, *hukou* status still plays a significant role in determining migrants' occupational attainment.

To better understand the nature of temporary migration in China, I have examined the settlement intention of temporary migrants, using Wuxi as a case study. The analysis suggests that *hukou* reforms alone are not sufficient to turn all temporary migrants into permanent migrants. In the survey, about one-third of the respondents are truly temporary

in nature. They intend to return under all circumstances. However, *hukou* status is a significant constraint that temporary migrants face in the city. Lack of local *hukou* puts additional constraints on their lives in the city, such as job search, home purchase and social insurance. More inclusive *hukou* reforms would help improve temporary migrants' living standards in the city and in turn boost their settlement intention.

## **7.2 Significance of the study**

The findings of this dissertation underscore the importance of addressing the role of policy for studying internal migration and for understanding migrants' decision making process, especially in transitional economies that are undergoing structural transformations.

Empirically, this dissertation contributes to the literature on migration in China by focusing on the changes and trajectory of the two-track migration system. My analysis shows that the gaps between permanent migrants and temporary migrants have persisted, despite *hukou* reforms. The findings point to two key relationships that have determined internal, rural-urban migration in China. First, the *hukou* system continues to be an institutional divide that creams off the most competitive migrants and awards them urban residence while denying most rural Chinese the opportunity for permanent migration to the city. Second, as migration streams mature a larger spectrum of rural Chinese are

working and living in cities although the vast majority of them continue to do so as temporary migrants.

The findings of the dissertation have implications for policy makers. First, the analysis shows that lack of *hukou* is a significant constraint preventing temporary migrants from settling down in the city. To resolve the problem of large numbers of temporary migrants in cities, city governments should make *hukou* more accessible to migrants in general and provide them with better access to jobs, housing, and services. Second, my findings suggest that even with removal of *hukou* constraints a considerable proportion of migrants (about one-third in my Wuxi survey) would still not choose to stay in the city; in other words, these migrants are truly temporary. Therefore, while continuing *hukou* reforms, city governments should address temporary migrants' special needs and develop appropriate strategies to meet those needs.

### **7.3 Limitations of the study and suggestions for future research**

The limitations of this study mainly lie in three aspects. First, this study is largely confined to inter-provincial migration and does not address intra-provincial migration, due to data limitations. Because inter-provincial migration is increasingly important over time, I am confident that the findings in the study reflect the overall trends of mobility in China. But it will be interesting to see the extent to which intra-provincial migration is

different from inter-provincial migration and the extent to which permanent migrants are different from temporary migrants among intra-provincial migrants.

Second, the dissertation does not address changes since 2000. For example, some provinces have eliminated the distinction between agricultural and nonagricultural *hukou* (Congressional-Executive Commission on China 2005; Chan and Buckingham 2008; Wang 2004). In recent years, some cities in China have started to issue “residence card” to qualified migrants. The criteria of “residence card” are generally lower than that of *hukou*. Migrants with “residence card” can enjoy some resources in the city as local residents. It is important to further examine how the two-track migration system has changed in the 21<sup>st</sup> century and what roles recent *hukou* reforms have played in it.

Third, my study on temporary migrants’ settlement intention is based on a single city, Wuxi, with relatively high level of development and medium level of *hukou* regulations. The study may reflect the situation of cities that share similar levels of economic development and *hukou* regulations more so than cities that are larger or smaller and have different degree of *hukou* regulations.

## **Appendix A: Assessment of the relative importance of independent variables using the information theory approach**

Based on the information theory approach, the relative importance of an independent variable refers to the amount of explained variation in the dependent variable attributable to each independent variable. This approach is first suggested by Kruskal (1987) in Ordinary Least Square (OLS) regression, extended by Theil and Chung (1988) into an information theoretic framework, and further extended by Soofi (1992) to logistic regression models (Menard 2004). Soofi (1992) introduces an information index  $I_{\pi^*}$  which measures the reduction in uncertainty of the model which is the same as the entropy measure of explained variation used in information theory (Haberman 1982, cited in Menard 2004). The information index corresponds to the  $R^2$  in the OLS regression and the likelihood ratio (pseudo R-squares)  $R_L^2$  developed by McFadden (1974) in the logistic regression.  $R_L^2$  is calculated as

$$R_L^2 = (-2LL_D)/(-2LL_0) = [(-2LL_0) - (-2LL_M)]/(-2LL_0)$$

where  $-2LL_D$  is the model chi-square of the logistic regression,  $-2LL_0$  is the -2 log-likelihood statistic with only the intercept (no independent variables) included in the model, and  $-2LL_M$  is the -2 log-likelihood statistic of the full model (Menard 2004).

The information index  $I_{\pi^*}$  ( $R_L^2$  in logistic regression) can be decomposed into the contributions of the independent variables,

$$R_L^2 = \sum_i (\delta_i R_L^2)$$

where  $\delta_i R_L^2$  is equal to the change in  $R_L^2$  when variable  $X_i, i = 1, 2, \dots, k$ , is added to the model. Then, the average relative importance of an independent variable can be calculated by taking the average over all possible orderings of the independent variables,  $\sum_j (\delta_i R_L^2)/J$ , for  $J = k!$  (K factorial). The sum of the relative importance of all independent variables,  $\sum_i [\sum_j (\delta_i R_L^2)/J]$ , adds up to  $R_L^2$ .

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