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# China's Permanent and Temporary Migrants: Differentials and Changes, 1990–2000\*

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A unique feature of migration in China is its two-track system, one consisting of permanent migration and temporary migration. This article examines whether and how *bukou* reforms and the maturation of migration streams since the 1980s have changed the two-track system. Using data on interprovincial migration from the 1990 and 2000 censuses, our empirical analysis focuses on the differentials between permanent migrants and temporary migrants and their changes over time. We document the size, migration reasons, and selectivity of migrants, and we evaluate the determinants of the dichotomy between permanent migrants and temporary migrants via logistic regression models. Our findings show that between 1990 and 2000 the gaps between interprovincial 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, a larger spectrum of the rural population 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 are the disadvantaged and disenfranchised. **Key Words:** China, *bukou* (household registration), permanent migrants, temporary migrants.

中国居民迁徙的一个特点是它的双轨制，由永久性移民和临时性移民组成。本文探讨了自 20 世纪 80 年代以来的户口改革和迁移流的成熟是否和如何改变了这种双轨制。利用从 1990 年和 2000 年跨省迁移的人口普查数据，我们的实证分析重点讨论了永久性移民和临时性移民之间的差异以及他们随着时间推移的变化。我们记录了人口迁徙的多少，迁移原因以及选择性，我们通过逻辑回归模型评估了永久性移民和临时性移民之间的决定性差异因子。我们的研究结果显示，在 1990 年至 2000 年间，省际永久性移民和临时性移民的差距并没有缩小，而且在许多方面已经扩大。很少有证据能够表明，户籍改革降低了成为城镇居民的障碍。与此同时，一个更大的农村人口加入了临时性的人口迁移流。最终结果是双轨制得以持续，其中永久性移民越来越多地承担起社会和经济精英的地位，而临时性移民成为弱势和被剥夺公民权的群体。关键词：中国，户口（户籍），永久移民，临时移民。

Un rasgo único de la migración en China es su sistema de doble carril, el uno consistente en migración permanente, el otro, migración temporal. En este artículo se examina si el sistema de doble carril ha sido cambiado y en qué forma por las reformas *bukou* y la maduración de las corrientes migratorias desde los años 1980. Mediante el uso de datos de migración interprovincial de los censos de 1990 y 2000, nuestro análisis empírico se concentra en las diferencias que existen entre migrantes permanentes y los temporales, y sus cambios a través del tiempo. Documentamos el tamaño, las razones de la migración y la selectividad de los migrantes, y evaluamos los determinantes de la dicotomía entre migranmtes permanentes y temporales por medio de modelos de regresión logística. Nuestros hallazgos muestran que entre 1990 y 2000 las brechas entre migrantes interprovinciales permanentes y los migrantes temporales no se redujeron sino que en muchos aspectos se ampliaron. Hay poca evidencia de que las reformas hukou hayn disminuido las barreras contra la ciudadanía urbana. Al mismo tiempo, un espectro más grande de la población rural se ha sumado a las corrientes de migración temporal. El resultado neto es una persistencia del sistema de migración de doble carril, en el cual los migrants permanentes crecientemente asumen la posición de élites sociales y económicas

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en tanto que los temporales son los que carecen de ventajas y privilegios. **Palabras clave:** China, *hukou* (registro de hogares), migrantes permanentes, migrantes temporales

The massive migration of population, especially migration from rural to urban areas, has been part and parcel of the tremendous economic and social transformation in China over the past three decades. Population mobility in China prior to the 1980s was very low, but currently more than 15 percent of the country's population lives in places other than their home villages, towns, or cities, and the momentum of migration is increasing quickly.<sup>1</sup> A unique feature of migration in China is its two-track system, one consisting of permanent migration and temporary migration (Gu 1992; Chan 1994; Yang 1994). This article aims at assessing the extent to which the two-track system has changed by examining the differentials between interprovincial permanent migrants and temporary migrants and their changes over time.

The concepts of permanent migration and temporary migration, in the context of China, are rooted in the institution of household registration, or *hukou* (see next section). *Temporary migrants* refers to individuals whose place of residence differs from their place of registration. Most rural–urban migrants are temporary migrants. *Permanent migrants*, in contrast, refers to migrants who have changed their 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). Research has shown that permanent migrants are sponsored by the state and are more skilled and highly educated, whereas temporary migrants mostly are self-initiated, market driven, and of lower socioeconomic statuses (e.g., Li 1997; Chan, Liu, and Yang 1999; Fan 2002; Shen 2002). Temporary migrants do not enjoy the same institutional, economic, and social statuses as permanent migrants and local residents. A variety of terminologies have been used to describe this dichotomy—*hukou* versus non-*hukou* migrants, “plan” versus “nonplan” (or self-initiated) migrants, formal versus informal migrants, and *de jure* versus *de facto* migrants (Gu 1992; Yang 1994; Li 1995; Chan, Liu, and Yang 1999; Fan 1999). Regardless of which terminologies are used, this two-track system is key to explaining the persistent divides and inequality between rural and urban Chinese.

In this article, we highlight two processes that have shaped the two-track system over the past two decades or so. 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, and 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' experiences 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.

In the next two sections, we examine further these two processes and their likely impacts on the two-track migration system. This is followed by our empirical analysis, which focuses on the gaps between interprovincial permanent and temporary migrants and how they changed between 1990 and 2000. We examine the number, reasons, and selectivity of migrants, and we conclude the analysis via logistic regression models that evaluate the determinants of the dichotomy between permanent migrants and temporary migrants.

### The Hukou System and Reforms

Formally implemented in the late 1950s, the *hukou* system has since been an effective means of migration control, especially over rural–urban migration. Technically, the term *hukou* refers to both *hukou* type (agricultural or nonagricultural) and *hukou* location (place of

registration). In this article, we 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.

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’ arguments that migration control impedes economic growth and that the hukou system perpetuates rural–urban inequality (e.g., Yu 2002; Alexander and Chan 2004; Wang 2005; Fan 2008). In 1985, the Ministry of Public Security began to issue “temporary residence permits” 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 can 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 the blue stamp with 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 the 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 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 who 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). 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 (“Shenzhen’s New Residence System Help Migrant Workers” 2008). And, in recent years, an increasing number of cities have eliminated the distinction between agricultural and non-agricultural 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 (“Hukou System Must Reform Step by Step” 2004; “Diaocha” 2007). Chan and Buckingham (2008) argued 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; Chan and Buckingham 2008).

It is important to note that migrants' intentions to stay are a crucial factor in whether they will pursue a hukou change when given the opportunity. There is some evidence that if rural migrants were asked to give up their entitlement to farmland, their desire to pursue urban hukou would diminish (e.g., Zhu 2003, 2007). Other studies point out that the city's lack of social and housing provisions for rural migrants compel them to consider the countryside their permanent home (Fan and Wang 2008; Fan 2009). Although it might be difficult to determine if a rural migrant does not have urban hukou because he or she does not desire it or because he or she is denied it, these two explanations are linked and both reflect how receptive the city is to granting rural migrants full-fledged urban citizenship.

If hukou reforms have indeed lowered the threshold for urban hukou, then we would expect that over time a larger spectrum of rural migrants—not only the skilled and wealthy—would become permanent migrants. On the contrary, if the hukou system continues to uphold the logic of segmentation and creaming, we 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

Migration is selective (Lee 1966). Most migrants are young and in the middle of the socioeconomic hierarchy—those at the bottom might not have the resources needed for migration, and those at the top might not feel the need to seek new opportunities via migration (Massey, Goldring, and Durand 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 a special 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, Goldring, and Durand 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 (Y. 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) showed that from the 1950s and 1960s to the 1970s, Mexican immigrants' levels of educational attainment declined. Focusing on 19 Mexican communities that sent migrants to the United States, Massey, Goldring, and Durand (1994) found that over time migration streams became increasingly diverse and increasingly representative of the home community. The earliest Mexican migrants to the United States 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) documented 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) found 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) showed that Asian immigrants to the United States in the 1970s

had lower levels of educational attainment than earlier immigrants. Examining the socioeconomic profile of Fujianese migrants to the United States, many of whom pursue illegal means to enter, Liang (2001b) found that the migrants are increasingly diverse. Over time, the age of migrants declined, the level of educational attainment of migrants became lower, increasing numbers 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 highly skilled, highly educated individuals have migrated from Taiwan, Hong Kong, and mainland China to North America for economic, educational, and 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 that of the Fujianese migrants. Despite the former's superior socioeconomic attainments, they do not undermine the notion that migration maturation reduces selectivity.

The preceding findings, based primarily on international migration, are relevant to our study because of two characteristics of China's internal migration. First, as described earlier, hukou acts as a barrier to permanent migration and serves as 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, Liu, and Yang 1999; Rozelle et al. 1999). Based on sample surveys in Shanghai and Jiangsu, S. Zhao (2000) reported that more than half of self-initiated migrants used assistance from relatives and friends when they first pursued migrant work. He showed 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, and Guangdong, Meng (2000) observed that more than 70 percent of rural-urban migrants found their first job through contacts with relatives, friends, or fellow villagers. A survey in Sichuan and Anhui found 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).

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)—and the prominence of social networks in shaping temporary migration, the selectivity of temporary migrants would be expected to 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). There is also evidence that over time an increased proportion of married women have joined the rural-urban migration streams (Ma et al. 2004; Fan and Wang 2008). 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.

The empirical analysis that follows focuses on the differentials between interprovincial permanent and temporary migrants and whether the gaps have widened or narrowed over time. A narrowing of the gaps would suggest that over time hukou reforms have lowered the barriers of hukou change and enabled more rural migrants to become permanent migrants. A widening of the gaps would support the observation that hukou reforms have not changed the two-track system and the notion that maturation of migration streams reduces the selectivity of temporary migration.

### **Changes in Size and Proportion**

Our empirical analysis uses data from China's 1990 and 2000 censuses. In China, the censuses provide the most complete and representative data on internal migration (Goodkind and West 2002). The 1990 census is the first

**Table 1** Permanent and temporary migrants in China, 1990 and 2000

	1990		2000	
	Volume (million)	Percent	Volume (million)	Percent
Intercounty migrants	35.3	100.0	79.1	100.0
Permanent	19.1	54.1	20.2	25.6
Temporary	16.2	45.9	58.8	74.4
Interprovincial migrants	11.5	100.0	31.7	100.0
Permanent	5.4	46.7	4.2	13.2
Temporary	6.2	53.3	27.5	86.8

Note: Figures based on the 1990 census 1 percent sample have been multiplied by 100. Those based on the 2000 census 0.1 percent interprovincial migrant sample have been multiplied by 1,000/0.95 because that sample is a 1 percent sample from the long form, which accounts for 9.5 percent of the total population (National Bureau of Statistics 2002). See also Fan (2008).

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample; Liang and Ma (2004).

census that collected migration data systematically, and the 2000 census includes even more detailed information on migration. Data from two consecutive censuses provide a unique opportunity to document changes in migration. We analyze a 1 percent sample of the 1990 census and a 0.1 percent sample of interprovincial migrants from the 2000 census. Unless specified otherwise, the analysis focuses on interprovincial migration.

#### *Permanent and Temporary Migrants*

Definitions of migration in Chinese sources are varied and complicated. In this article, we employ a set of definitions that are commonly used in the literature. For the 1990 census, we define a migrant as a person aged five or older who on the date of enumeration (July 1, 1990) resides in a city or county different from that five years ago (July 1, 1985) and has lived in the place of enumeration for more than one year or left his or her hukou location for more than one year. Migrants who have changed their hukou to the place of enumeration are considered permanent migrants, and those who have not are considered temporary migrants. Because of changes in the 2000 census, our definition for migration for that census also changes slightly. First, the temporal criterion—minimum length of stay in the place of enumeration or minimum length of time since leaving the hukou location—is reduced from one year to six months. This change has likely increased the total migrant count, but most researchers expect the effect to be small (Liang 2001a; East China Normal University Population Research Institute 2005). Because this article's overall concern is migrants' char-

acteristics rather than their magnitudes, we do not expect this definitional change to unduly affect our findings.<sup>2</sup> Second, the 1990 census records intercounty migration only, but the 2000 census also documents intracounty moves. Because this article's analysis deals primarily with interprovincial migration—rather than intercounty and intracounty moves within provinces—the spatial change of the definition has no effect on our findings.

The 1990 census documents a total of 35.3 million intercounty migrants,<sup>3</sup> among whom 19.1 million (54.1 percent) are permanent migrants and 16.2 million (45.9 percent) are temporary migrants (Table 1). The 2000 census shows only a slight increase of permanent migrants to 20.2 million but a more than threefold 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 interprovincial migrants, likewise, temporary migrants have increased their volume and share considerably. Between the two censuses, the number of interprovincial 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 interprovincial permanent migrants has, in fact, declined, from 5.4 million to 4.2 million, and their share shrank from 46.7 percent to 13.2 percent.

#### *Rural–Urban Migration*

Our estimation of rural–urban migration is complicated by three factors. First, the definitions of urban population and places in China

**Table 2** Origin and destination types of interprovincial migrants (%), 1990 and 2000

	Destination						
	1990			2000			
	Cities	Counties	Total	Cities	Towns	Counties	Total
Streets	17.7	8.6	26.3	9.2	1.6	2.0	12.8
Towns	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 <sup>b</sup>	9.1 <sup>c</sup>	11.3	40.8
Townships	26.7 <sup>a</sup>	33.1	59.8	19.4 <sup>b</sup>	8.2 <sup>c</sup>	11.7	39.2
Total	50.8	49.2	100.0	53.4	20.4	26.2	100.0

Note: See also Fan (2008).

<sup>a</sup>Rural-urban.

<sup>b</sup>Rural-urban 1 (ru1).

Sum of <sup>b</sup> and <sup>c</sup> = Rural-urban 2 (ru2).

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample.

have changed many times (e.g., 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 our empirical analysis, in the following we 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*). 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*). On the urban-rural continuum, streets are the most urbanized and townships are the most rural.

Our sample from the 1990 census allows us 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, we define rural-urban migrants as those who move from township origins to city destinations. They account for 26.7 percent of all interprovincial migrants (Table 2).

Our sample from the 2000 census has streets and townships as origins but further subdivides town origins into residents' committees and vil-

lagers' committees. This disaggregation is useful because residents' committees are usually considered urban and villagers' committees rural. Therefore, we 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 us to decide to use two definitions of urban destination: (1) cities only and (2) cities and towns.

Accordingly, for the 2000 census, we 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 interprovincial migrants. Regardless of which definition is used, it is clear that between 1990 and 2000 the share of rural-urban migration among all migrants significantly increased.<sup>4</sup>

Table 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

**Table 3** Interprovincial rural–urban migration, 1990 and 2000

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

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

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample.

in Table 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. 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.

In summary, over time the size and proportion of temporary migration have increased considerably, whereas 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.

### Changes in Migration Reason

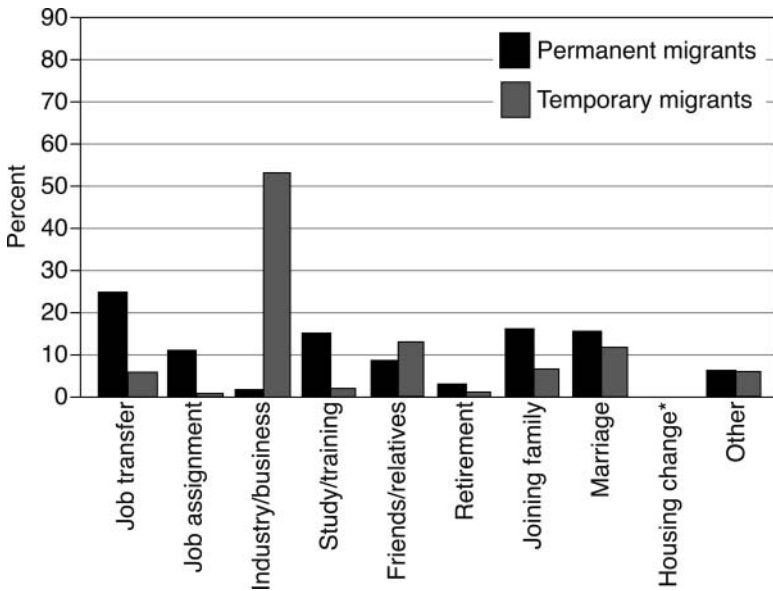
A highly valuable feature of China's 1990 and 2000 censuses is a question asking migrants their primary reason for migration. The 1990 census has nine options for that question: job transfer, job assignment, industry/business, study/training, friends/relatives, retirement, joining family, marriage, and other.<sup>5</sup> The 2000 census dropped retirement and added housing change as a migration reason to reflect the rising residential mobility as a result of the housing reform since the late 1980s.<sup>6</sup> These options 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).

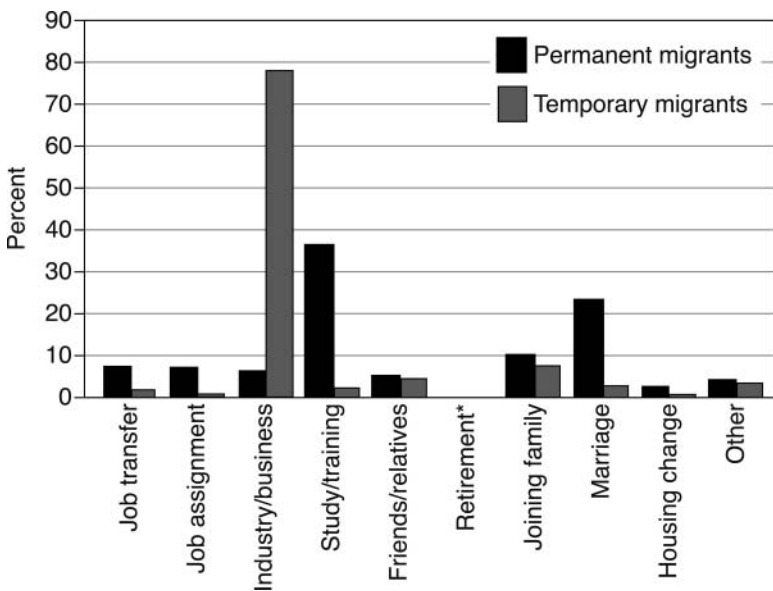
Permanent and temporary migrants differ in their reasons for migration. Figures 1 and 2 show the differences among interprovincial migrants and how they have changed. For 1990, job transfer (24.3 percent), joining family (15.7 percent), study/training (15.1 percent), marriage (14.8 percent), and job 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.

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) were leading reasons for migration among permanent migrants. Admission to certain schools—such as





**Figure 1** Migration reasons of interprovincial permanent and temporary migrants, 1990. Source: 1990 census 1 percent sample. \*Housing change did not appear as a migration reason in the 1990 census.



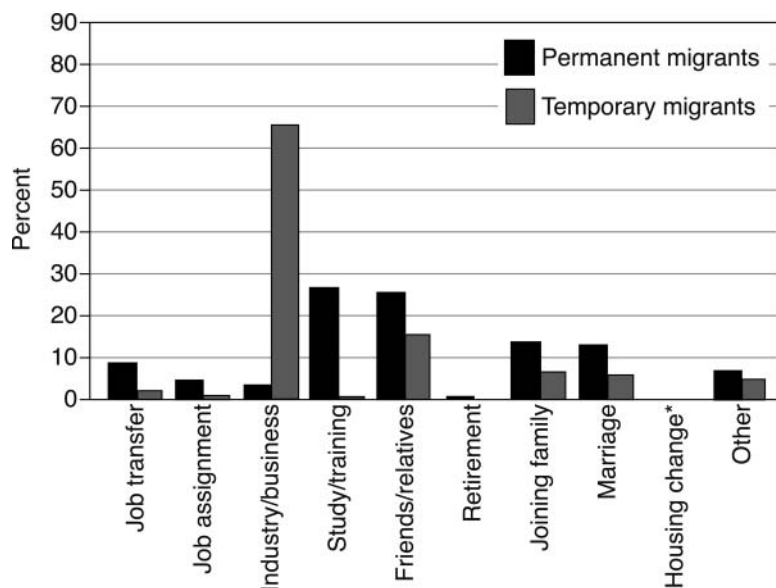
**Figure 2** Migration reasons of interprovincial permanent and temporary migrants, 2000. Source: 2000 census 0.1 percent interprovincial migrant sample. \*Retirement was dropped as a migration reason in the 2000 census.

specialized secondary schools or higher education institutions (Yu 2002)—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 reasons, 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 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.

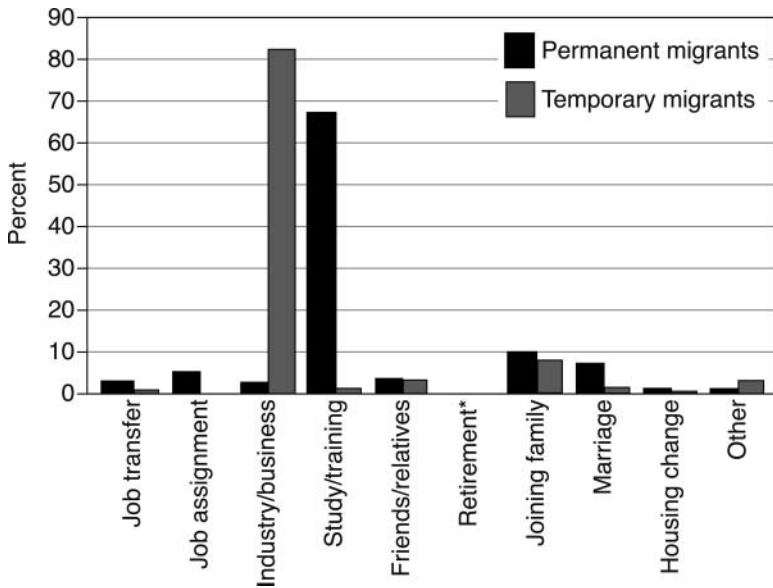
Among rural–urban migrants (Figures 3 and 4), the dominance of leading reasons is even more pronounced, the gaps between permanent and temporary migrants are wider, and over time the gaps are increasing. For the sake of simplicity, Figure 4 shows only ru1, which

has a very similar pattern to ru2. For 1990, study/training (26.3 percent) was the leading reason for 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) had become the dominant reason for 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 after graduation. According to the 1990 census, 65.7 percent of temporary migrants move for industry/business reasons. By 2000, that proportion had increased to 82.1 percent.

In summary, the differentials in reasons for migration 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 who 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.



**Figure 3** Migration reasons of interprovincial rural–urban migrants, 1990. Source: 1990 census 1 percent sample. \*Housing change did not appear as a migration reason in the 1990 census.



**Figure 4** Migration reasons of interprovincial rural-urban 1 (ru1) migrants, 2000. Source: 2000 census 0.1 percent interprovincial migrant sample. \*Retirement was dropped as a migration reason in the 2000 census.

### Changes in Selectivity

Migration selectivity and how it has changed can shed light not only on the impacts of hukou reforms but also on how maturation of migration streams has shaped the composition of migrants. If hukou reforms have made permanent migration easier, then we would expect the differentials between permanent migrants and temporary migrants to narrow. If over time a larger spectrum of individuals has joined temporary migration, then we would expect the differentials to increase. Tables 4 and 5 summarize the differentials in characteristics between permanent and temporary migrants, respectively, for all interprovincial migrants and interprovincial rural-urban migrants.

#### Age

In general, migrants are younger than nonmigrants. Between 1990 and 2000, the age gap between migrants and the general population widened (Table 4). The mean age of migrants and the general (5+) population is 27.4 and

31.3, respectively, 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 age group between fifteen and thirty-nine 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, at 27.2 and 27.6, respectively. But in the 2000 census, the mean age of permanent migrants declined 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 we discussed earlier (see also Fan 2008). Among rural-urban migrants, likewise, the age gap between permanent and temporary migrants widened—from 1.9 years in 1990 to 4.8 years (ru1) and 3.7 years (ru2) in 2000 (Table 5). And, between the two censuses, the proportion of permanent migrants aged fifteen to

**Table 4** Characteristics of interprovincial migrants, 1990 and 2000

	1990				2000			
	5+ population	Permanent migrants	Temporary migrants	All migrants	5+ population	Permanent migrants	Temporary migrants	All migrants
Mean age	31.3	27.2	27.6	27.4	33.7	25.2	27.2	26.9
Age structure (%)								
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
Sex ratio	106	128	156	142	106	106	110	110
Education (6+) (%)								
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
Nonworking (15+) (%)	20.8	32.6	16.8	22.0	25.9	51.6	11.9	17.0
Occupation (15+) (%)								
Professional	5.3	22.9	3.0	11.2	5.7	17.0	2.6	3.7
Government	1.8	4.1	1.0	2.3	1.7	1.4	1.2	1.2
Administrative	1.7	11.1	1.2	5.3	3.1	7.7	3.1	3.4
Commerce/services	5.4	8.7	16.8	13.5	9.2	8.3	21.2	20.2
Industrial	15.2	24.2	58.7	44.6	15.8	17.5	66.0	62.4
Agriculture	70.6	28.7	19.1	23.0	64.5	48.1	5.9	9.1
Other	0.0	0.3	0.1	0.2	0.1	0.0	0.0	0.0
Origin (townships or villagers' committees) (%)		39.6	77.5	59.8		50.2	84.6	80.0
Destination (cities) (%)		50.2	51.3	50.8		57.6 <sup>a</sup>	52.8 <sup>a</sup>	53.4 <sup>a</sup>

<sup>a</sup> Restricted definition of urban.

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample.

**Table 5** Characteristics of interprovincial 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
Mean age	25.2	27.1	26.6	22.2	27.0	26.6	22.9	26.6	26.4
Age structure (%)									
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
Sex ratio	115	201	172	185	125	129	160	112	114
Education (6+) (%)									
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	53.0	1.2	4.2
Nonworking (15+) (%)	52.0	14.6	24.0	81.9	11.4	16.3	76.3	9.8	13.7
Occupation (15+) (%)									
Professional	8.3	1.5	2.6	33.1	1.5	1.9	25.3	1.4	1.8
Government	1.4	0.5	0.6	0.7	1.1	1.1	1.8	0.9	0.9
Administrative	3.8	1.0	1.5	8.3	2.7	2.8	8.9	2.5	2.6
Commerce/services	17.5	22.4	21.6	22.8	28.0	27.9	18.2	23.7	23.6
Industrial	39.7	64.4	60.4	20.0	64.0	63.3	22.2	68.8	68.1
Agriculture	28.9	10.2	13.2	15.2	2.8	3.0	23.6	2.7	3.0
Other	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

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

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample.

nineteen increased 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.

### *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). Temporary migrants are especially sex-selective, marked by a sex ratio of 156. Because 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). 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 5). The increased dominance of men among rural–urban permanent migrants, again reflects the prominence of study/training as a reason for migration, 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 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 higher levels of education (i.e., sum of “senior secondary” and “college and above”) is higher than that of the general population (Table 4). Yet, between the two censuses, the proportion for migrants dropped—from 28.6 percent to 22.5 percent—whereas that of the general population 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 higher education levels has declined, but the proportions for both permanent and temporary migrants have in fact increased, from 46.6 percent to 56.0 percent and 12.7 percent to 17.4 percent, respectively. This is because temporary migrants, whose educational attainment is considerably lower than that of permanent migrants, increased their volume and share by many folds by the year 2000 (see the earlier section “Changes in Size and Proportion” and Table 1) and are dominating and depressing the overall educational attainment of migrants (see also Fan 2008). Between 1990 and 2000, although the educational attainment for all three groups—the general population, permanent migrants, and temporary migrants—increased, the improvement is the least among temporary migrants and the greatest among permanent migrants. Specifically, for senior secondary and higher, 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 increased by 15.5 percentage points (from 24.9 percent to 40.4 percent), whereas 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 is 1.2 percentage points (from 2.7 percent to 3.9 percent). This shows that over time permanent migrants are increasingly selected and temporary migrants are less selected, resulting in a widening gap between them.

Among rural–urban migrants (Table 5), the gaps in educational attainment between permanent and temporary migrants are even larger and over time the gaps are widening even faster. The proportion of permanent migrants with senior secondary and higher education 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 level and above, which in 2000 accounted for more than half—59.9 percent (ru1) and 53.0 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.

### *Occupational Attainment*

Chinese statistics distinguish the population aged fifteen and older into a nonworking group and a working group. The nonworking population includes students, homemakers, and those not working because of retirement, unemployment, or other reasons (see also Fan 2008). Large proportions of interprovincial permanent migrants are nonworking—32.6 percent in 1990 and 51.6 percent in 2000—compared to temporary migrants and the general population (Table 4). The percentages are even higher for rural–urban migrants (Table 5). Detailed examination of the data (not shown) indicates that the vast majority of nonworking permanent migrants are students. In contrast, the majority of nonworking temporary migrants are homemakers, probably including many women that accompany their migrant husbands.

Among the working population, occupation statistics are reported for seven major categories: professional, government, administrative, commerce, services, industrial, and agriculture, in rough order of decreasing status.<sup>7</sup> In our analysis, we combine commerce and services into one category.

Permanent migrants have higher occupational attainment than temporary migrants. According to the 1990 census, 38.1 percent of permanent migrants and only 5.2 percent of temporary migrants were in professional, government, and administrative occupations—occupations characterized by high pay, good benefits, and job stability (Table 4). Interestingly, by 2000, the proportion of permanent migrants in those occupations declined to 26.1

percent, whereas that of temporary migrants increased to 6.9 percent. The former is likely due to the increased prominence of agriculture—48.1 percent in 2000—largely a result of marriage migrants from rural origins to rural destinations (Davin 1999; Fan 2008). This effect is expected to be much smaller among rural–urban migrants (see later). Among temporary migrants, the most dominant occupation is industrial, with a share of 58.7 percent in 1990 that increased to 66.0 percent in 2000. Their second leading occupation in the 2000 census was commerce and services (21.2 percent). Both industrial and commerce/services occupations are characterized by low pay, poor benefits, and lack of stability.

Among rural–urban migrants, over time the gaps in occupational attainment between permanent and temporary migrants have widened (Table 5). The proportion of permanent migrants in professional, government, and administrative occupations increased from 13.5 percent to 42.1 percent (ru1) and 36.0 percent (ru2), whereas the proportion of temporary migrants increased only slightly from 3.0 percent to 5.3 percent (ru1) and 4.8 percent (ru2). The gap between permanent and temporary migrants, accordingly, has increased from 10.5 percentage points to 36.8 (ru1) and 31.2 (ru2) percentage points. Meanwhile, the dominance of industrial and commerce/services occupations among temporary migrants continues, with the combined share increasing from 86.8 percent in 1990 to 92.0 percent (ru1) and 92.5 percent (ru2) in 2000. The share of permanent migrants in these two occupations, on the other hand, declined from 57.2 percent in 1990 to 42.8 percent (ru1) and 40.4 percent (ru2) in 2000. In summary, the gaps in occupational attainment between permanent and temporary migrants have widened over time, and the widening is especially notable among rural–urban migrants. Permanent migrants are highly and increasingly represented in high-prestige jobs, whereas temporary migrants are increasingly concentrated in occupations of low pay and status.

### *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). The proportion of all migrants from rural origins increased from 59.8 percent in 1990 to 80.0 percent in 2000.

The majority of interprovincial migrants move to urban areas. In 1990, the differentials in destination between permanent and temporary migrants were small. In 2000, 57.6 percent of permanent migrants and 52.8 percent of temporary migrants move to cities (restrictive definition of urban areas), and 67.0 percent of permanent migrants and 74.8 percent of temporary migrants moved to cities or towns (relaxed definition of urban areas; not shown in Table 4). These statistics suggest that although the majority of temporary migrants move to cities, a significant proportion of them move to towns.

Although the preceding statistics do not show clear trends of origin and destination differentials between permanent and temporary migrants, they highlight rural origins as a prominent and persistent characteristic of temporary migrants and urban areas as increasingly popular destinations for both permanent and temporary migrants.

### **Modeling Permanent and Temporary Migration**

The preceding analyses show that in terms of size and proportion, reason for migration, and socioeconomic characteristics, the gaps between permanent and temporary migrants have widened over time. To assess the relative importance of factors that contribute to the differentials between these two types of migrants, we 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. Our selection of independent variables is informed by the descriptive analysis described earlier, and we estimate the 1990 and 2000 models separately to show how the effects of these independent variables have changed over time.

We estimate models for both interprovincial migration and interprovincial rural–urban migration (Tables 6 and 7). For simplicity's sake, we refer to the former as all-migrant

models and the latter as rural–urban models. For the all-migrant models, we include six sets of independent variables—gender, education, migration reason, occupation, origin, and destination. For the rural–urban models, we 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, we choose other as the reference group. We 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. For occupation, we include the nonworking population, and we define industrial as the reference group because most temporary migrants are engaged in industrial work. Thus, occupation is represented by six dummy variables.<sup>8</sup> Finally, origin is coded 1 for rural (townships or villagers' committees) and 0 for others, and destination is coded 1 using a restrictive definition of urban—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 80.0 percent to 97.2 percent. The pseudo  $R^2$ s ranging from 0.41 to 0.68 are reasonably high. Most coefficients are significant at 0.05 or higher and have the expected sign. Overall the results support the observations made earlier.

For the all-migrant models (Table 6), gender is not significant for the 1990 model but is positively and significantly related to being a permanent migrant for the 2000 model. In other words, 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 (3.14 and 3.99) are higher than those of senior secondary (1.85 and 1.65) and have increased between 1990 and 2000. This suggests that college-level education is especially important for increasing the likelihood of permanent migration and its importance has increased over time.

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

**Table 6** Logistic regression on interprovincial migration (15+), 1990 and 2000

Independent variable	1990			2000		
	Standardized coefficient	Z	Odds ratio	Standardized coefficient	Z	Odds ratio
Gender (male = 1)	0.008	1.92	1.04	0.109	9.13***	1.68
Education (reference: junior secondary and below)						
Senior secondary	0.091	23.94***	1.85	0.074	6.40***	1.65
College and above	0.158	24.98***	3.14	0.169	14.74***	3.99
Migration reason (reference: other)						
Job transfer/job assignment/joining family	0.097	17.06***	1.72	0.072	6.27***	1.86
Industry/business	-0.687	-82.68***	0.02	-0.459	-21.70***	0.09
Study/training	0.097	15.94***	2.37	0.191	14.75***	6.12
Marriage	-0.044	-8.98***	0.73	0.157	15.39***	4.85
Friends/relatives	-0.079	-20.36***	0.51	-0.024	2.43*	0.74
Occupation (reference: industrial)						
Nonworking	0.012	2.62**	1.08	0.072	4.92***	1.57
Professional	0.085	17.46***	2.16	0.041	4.44***	1.75
Government	0.034	8.51***	1.94	-0.009	-0.82	0.80
Administrative	0.103	22.60***	3.78	0.039	3.84***	1.73
Commerce/services	0.055	12.28***	1.58	-0.014	-0.76	0.92
Agriculture	0.091	19.63***	1.83	0.191	17.84***	5.50
Origin (township or villagers' committee = 1)	-0.084	-21.14***	0.65	-0.123	-12.41***	0.48
Destination (city = 1)	-0.070	-18.51***	0.70	-0.084	-6.24***	0.67
Model chi-square	60083.94			11232.90		
Pseudo R <sup>2</sup>	0.41			0.51		
Percentage correctly predicted	80.0			91.7		
Number of cases	105,890			28,592		
Degree of freedom	16			16		

Note: Dependent variable: 0 = temporary migrants; 1 = permanent migrants.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample.

increased from 2.37 to 6.12, 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 this change means, but the positive sign in 2000 highlights marriage as a factor of hukou change. This might 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 later). In both cases, migrants for marriage are more likely than migrants for other reasons to be permanent migrants.

In the 1990 model, the coefficients for all occupation dummies are positive and significant, indicating that migrants with industrial jobs are

more likely than migrants in the other five occupations and nonworking migrants to be temporary migrants. In the 2000 model, the coefficients for all occupation variables are positive and significant, except government and commerce/services, whose coefficients are negative but not significant.

Not surprisingly, the coefficients for origin are negative and those for destination are also negative and all are significant. That is, migrants from rural origins (townships or villagers' committees) are more likely than those from other origins to be temporary migrants, and migrants moving to cities are more likely than those to other destinations to be temporary migrants.

Using standardized coefficients as indicators of the relative importance of independent variables, the models show that for both



**Table 7** Logistic regression on interprovincial rural–urban migration (15+), 1990 and 2000 census

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
Gender (male = 1)	–0.002	–0.31	0.99	0.097	3.63***	1.66	0.084	3.26**	1.48
Education (reference: junior secondary and below)									
Senior secondary	0.103	16.04***	2.45	0.202	9.39***	4.66	0.172	8.61***	3.39
College and above	0.340	18.84***	42.82	0.253	14.07***	16.76	0.236	14.97***	14.65
Migration reason (reference: other)									
Job transfer/job assignment/joining family	0.066	8.44***	1.84	0.132	4.32***	4.21	0.110	4.33***	3.11
Industry/business	–0.687	–41.33***	0.02	–0.386	–6.61***	0.08	–0.411	–8.69***	0.08
Study/training	0.128	10.10***	3.75	0.251	7.65***	14.83	0.214	8.33***	10.88
Marriage	0.007	0.88	1.07	0.128	7.25***	13.22	0.145	9.15***	12.29
Friends/relatives	0.008	0.95	1.07	0.063	2.61**	2.65	0.050	2.47*	2.08
Occupation (reference: industrial)									
Nonworking	–0.039	–4.67***	0.78	0.101	2.81**	2.04	0.104	3.56***	2.03
Professional	0.006	1.03	1.14	0.043	2.56*	2.40	0.056	3.69***	2.94
Government	0.018	2.33*	2.08	–0.004	–0.09	0.90	0.048	1.90	3.64
Administrative	0.017	2.66**	1.57	0.032	1.32	1.75	0.052	2.48*	2.27
Commerce/services	0.046	5.04***	1.42	0.083	1.79	1.66	0.058	1.45	1.40
Agriculture	0.035	4.96***	1.38	0.091	4.35***	4.55	0.112	6.52***	5.23
Model chi-square	14855.57			3917.78			4624.31		
Pseudo R <sup>2</sup>	0.46			0.68			0.64		
Percentage correctly predicted	84.1			97.1			97.2		
Number of cases	28,392			11,400			16,423		
Degree of freedom	14			14			14		

Note: Dependent variable: 0 = temporary migrants; 1 = permanent migrants.

\**p* < 0.05. \*\**p* < 0.01. \*\*\**p* < 0.001.

Sources: 1990 census 1 percent sample; 2000 census 0.1 percent interprovincial migrant sample.

1990 and 2000, industry/business was the most important predictor of the permanent migrant versus temporary migrant outcome. For 1990, the next four predictors were, in descending order, college and above, administrative, job transfer/job assignment/joining family, and study/training. For 2000, the second to fifth predictors were study/training, agriculture, college and above, and marriage. These changes suggest the following. First, state-allocated jobs as a pathway toward hukou change have declined in importance. Second, education as a means to change one’s hukou has increased in importance. Third, marriage migration is increasingly closely tied to permanent migration.

The overall results for the rural–urban models (Table 7) are similar to the all-migrant models. For the 1990 model and the two 2000 models (ru1 and ru2), industry/business is the most important independent variable, followed by college and above, study/training, and senior secondary. This consistency in ranking, compared with the all-migrant models (Table 6), suggests that the relationship between education and permanent migration is stronger for rural–urban migration than overall migration. The increasing size of the coefficient for study/training, in particular, highlights the strong and increasing connection between higher education and urban hukou. Marriage was not significant in the 1990 model but

had large and significant coefficients in the 2000 models, 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.

In the rural–urban models, the coefficient for nonworking is negative and significant for 1990 but positive and significant for both the 2000 models. This suggests that over time, the nonworking migrants are more likely permanent migrants, underscoring the observation that students constitute increasingly large proportions of permanent migrants. Most other occupation dummies have positive and significant coefficients and most coefficients have increased in size between 1990 and 2000. In other words, over time industrial jobs have become an increasingly important predictor of temporary migration and most other occupations are increasingly associated with permanent migration.

### Summary and Conclusion

A legacy of the socialist era of central planning, the hukou system bifurcates Chinese society into a rural group and an urban group and makes it extremely difficult for rural citizens to enjoy the rights and benefits reserved for their urban counterparts. As a result, most rural migrants who have helped China industrialize and urbanize continue to be seen and defined as temporary migrants, despite their having worked and lived in cities for months and years. Migrants who are highly skilled and educated, on the other hand, are welcomed by urban governments to obtain urban hukou and become permanent migrants.

In this article, we ask the question if this two-track migration system has remained intact over time. We approach this question empirically by examining if the differentials between permanent migrants and temporary migrants have narrowed or widened. We have highlighted two factors that can change the differentials between these two types of migrants. First, hukou reforms that aim at making urban citizenship more inclusive are expected to have lowered the

barriers for rural Chinese to become permanent migrants (and residents) in cities. Under this scenario, the gaps between permanent migrants and temporary migrants would narrow. Yet, if actual implementation of hukou reforms targets only the most competitive migrants and ignores the rest, then the distances between permanent migrants and temporary migrants would remain large. 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.

Our empirical analysis shows that between 1990 and 2000 the gaps between interprovincial permanent migrants and temporary migrants did not narrow but in most aspects actually widened. The magnitude of temporary migrants increased many fold, whereas the number of permanent migrants 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 that of the general population and much slower than that of permanent migrants. Over time, increased proportions of temporary migrants work in industrial and commerce sectors, and the proportion of women among temporary migrants has significantly increased, indicating that migrant work as a way of life is increasingly prevalent among rural Chinese. Hukou reforms appear to have made it easier for marriage migrants—including rural–urban marriage migrants—to become permanent migrants. Other than marriage migration, however, there is little evidence that the reforms have lowered hukou barriers. At the same time, a larger spectrum of the population, including the less skilled and educated, has joined the temporary migration streams. The net result of these factors is the persistence of a two-track migration system, where permanent migrants increasingly assume the position of social and economic elites and temporary migrants are the disadvantaged and disenfranchised.

Our analysis has two limitations, both pointing to future research and demand for data. First, Chinese society is complex and rapidly changing and thus factors other than hukou reforms and maturation of migration streams might be at work to enlarge the gap between permanent and temporary migrants. For example, expansion of higher education opportunities makes it possible for qualified students to become permanent migrants, opportunities that do not benefit the less well trained. In addition, migrants' intentions to stay influence the propensity of hukou change. Second, our analysis is confined to interprovincial migration and does not address intraprovincial migration. Because the former is increasingly important over time, however, we are confident that our findings reflect the overall trends of mobility in China.

The global financial crisis that began in 2008 is felt also by China's migrant workers. In February 2009, China's Ministry of Agriculture reported that 20 million migrant workers had lost their jobs, with some being forced to return to the countryside and increasing the risk of social unrest ("China's Migrants See Jobless Ranks Soar" 2009). Although this number is disputable, there is no question that as one after another Chinese manufacturers go out of business, migrant workers are the first to suffer. For a quarter of a century, rural migrants have provided the labor for China's rapid industrialization and economic growth. Although urban work helps to improve migrant households' standard of living, rural migrants as a whole continue to lead a precarious and marginal existence institutionally, socially, and economically, and our study suggests that this situation is not likely to change in the foreseeable future. ■

## Notes

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

<sup>2</sup> Although data from the 2000 census do not allow us to use a one-year criterion, we explored extending the length of stay from six months to ten months to approach as much as possible the temporal criterion of the 1990 census. This was done by omitting migrants who arrived in 2000—that is, between January 1 and the date of enumeration of November 1. The results are not reported in this article but are

available on request. Suffice it to say that they are similar to those using the six-month criterion. To enable comparison with studies that use the 2000 census, in this article we report results based on the six-month criterion.

- <sup>3</sup> Intercounty migrants include migrants who move across county boundaries within a province as well as migrants who move across provincial boundaries.
- <sup>4</sup> Even if we 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.
- <sup>5</sup> *Job transfer* refers to job change, including demobilization from the military. *Job assignment* refers to assignment of jobs by the government and recruitment of graduates from schools. *Industry/business* refers to seeking work as laborers or in commerce or trade sectors. *Study/training* refers to attending schools or entering training or apprentice programs organized by local work units. *Friends/relatives* refers to seeking the support of relatives or friends. *Retirement* refers to workers leaving work due to retirement or resignation, including retired peasants in rural areas with retirement benefits. *Joining family* refers to family members following the job transfer of cadres and workers. *Marriage* refers to living with one's spouse after marriage. *Other* refers to all other reasons. See also Fan (2008).
- <sup>6</sup> *Housing change* refers to moving due to house demolition or changing houses. According to the 2000 census, housing change is the most important reason for intracounty migration (Liang and Ma 2004).
- <sup>7</sup> *Professional* refers to scientists, engineers, physicians, finance officers, law practitioners, teachers, artists and athletes, journalists, and clergy. *Government* refers to government officials, party officials, and managers in enterprises. *Administrative* refers to administrative workers, public security officers, and postal workers. *Commerce* refers to sales, purchasing, and retail (stores or street vendors). *Services* refers to restaurant and hotel servers, maids, hairdressers, launderers, custodians, gardeners, cooks, tour guides, and repair workers. *Industrial* refers to miners, metal workers, chemical workers, garment workers, manufacturing workers, printers, machinery workers, electricians, construction workers, and transportation workers. *Agriculture* refers to farmers, forestry workers, and fishermen. See also Fan (2008).
- <sup>8</sup> Because "other" occupations account for very small number of migrants, in the models this category is combined with industrial.

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