China, Internal Migration*

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1. INTRODUCTION

The success story of "Made in China" in the last quarter century is inextricably meshed with the story of migrant workers toiling for subsistence wages to produce for exports. Indeed, the total stock of "rural migrant labor", estimated to be about 155 million in 2010 (Cai, et al, 2011, p.18), has been the backbone of China's the export industry since the mid-1990s. In export centers such as Shenzhen and Dongguan, migrant labor accounted for the great majority (70 to 80 percent) of the laborforce in the early years of the new century (Chan, 2007). Rural-urban migration has also played a very important part in China's recent epic urbanization. In the 30 years since 1979, China's urban population has grown by about 440 million to 622 million in 2009 (Chan, 2010c). Of the 440 million increase, about 340 million was attributable to net migration and urban reclassification.[1] Even if only half of that increase was migration, the volume of rural-urban migration in such a short period is likely the largest in human history.

Despite the epic-scale migration, the study of migration trends in China continues to be plagued by misinterpretations and problems in the key data (see Scharping, 2001; Liu and Chan, 2001).[2] Understandingly, migration by nature is harder to measure, but the underlying concepts China uses to define migration are quite different from those commonly employed in other countries. The analysis of Chinese migration is further complicated by the particular institutional arrangements and systems of population and migration management, and of statistical reporting (Chan, 2007). Some United Nations (1999) researchers once called the Chinese "floating population," the largest group of internal migrants in China, "statistically invisible". Others, such as Roberts (2002), find it hard to detect these "invisible residents" in the Chinese data.[3] Such problems have also hampered our ability to reasonably analyze not only China's migration, but also its industrialization, urbanization, and many other related processes.

Piecing data from a variety of sources, this chapter explains China's rather complex migration statistics, and analyzes the internal migration trends since the early 1990s and its geography. Since the *hukou* (household registration) system has played an important role in the migration process, a clear understanding of it is crucial to interpreting the migration data. An appropriate "matrix" is set up to put the different migration statistics in their proper places, thereby enabling researchers to make sense of those numbers and generate correct inferences and comparisons. Based on the above, this chapter examines the trends and geography of migration,

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[1] Based on *de facto* urban population counts. For estimates of components and definitions, see Chan and Hu (2003) and Chan (2007). The latest urban population count, based on 2010 census, was 666 million in November, 2010 (NBS, 2011).

[2] One common mistake in the literature is the confusion over migration *flow* and *stock*. See discussion later.

[3] Indeed, for instance, amidst the voluminous data in the 29 tables under the Population and Labor Section in *Shanghai Statistical Yearbook 2006* (SBS, 2006), only one rather obscure single column is devoted to reporting the numbers of "outside population" (in Table 3.3), although the city is one of the country's major destinations of migrants.

with a focus on the group called "rural migrant labor." The conclusion highlights some remaining important issues.

2. Definitions of Migrants and rural migrant labor

Any meaningful analysis of internal migration in China must begin by understanding the *hukou* system and its relationship to migration. As is now well known, migration in China is highly regulated, and it has been an important part of the national industrialization strategy (Chan, 2009a). People seeking to change residence permanently or formally are required to obtain approval for *hukou* change from the local authorities (Chan and Zhang, 1999). For urban residents, changing *hukou* residence *within* the same city or town (i.e. "moving" the *hukou* to a new address in the same town) is generally permitted. So are rural residents moving *within* rural areas along with their *hukou* because of marriage or other family reasons. However, formal (or "permanent") moves – meaning those involving a *hukou* change -- crossing city, town and township boundaries are strictly regulated and require approval by the public security authorities. The approval is granted scarcely and only when there are good reasons for the proposed move, and if the move serves (or at least is not at odds with) the central or local state interests and policies.[4] Generally speaking, it is very difficult for an ordinary person to change *hukou* from rural to urban areas, or from smaller cities to larger cities (Wang, 2005; Chan, 2009a). The *hukou* system in the pre-reform era functioned as a *de facto* internal passport system to prevent rural exodus and an "entitlement" mechanism to limit most state-provided social goods to the urban residents. Today, the system has worked chiefly as an entitlement distribution mechanism rather than to stop migration. Rural migrants are allowed to move to and work in cities (under the "temporary residents" category), but they cannot have a *hukou* in the destination where they stay. Therefore, these migrants are ineligible for many local benefits and rights, which ordinary local urban residents qualify for automatically.

More generally, two categories of migrants can thus be identified (Chan et al, 1999):

a. Migration with "local" residency rights (*bendi hukou*) (hereafter, *hukou* migration). This is usually open only to a very select group (currently, the rich or the highly educated), and immediate family members of residents with local *hukou* (Chan and Buckingham, 2008);

b. Migration without *hukou* residency rights (non-*hukou* migration).

In China, officially only *hukou* migration is considered *qianyi* ("migration"). Migrants in that category are eligible for the same array of social benefits and rights other local residents have. Other types of moves are considered *renkou liudong* (population movements or "floating" population), implying a "temporary" move to a destination where the person is not supposed to, and is legally not entitled to, stay permanently. Until recently, the China's main source of annual population statistics – generated by its *hukou* administration system -- reported basically only the *hukou* (*de jure*) population. In recent years, statistics of the non-*hukou* population who are registered as "temporary residents" are also reported. In addition, in the last 25 years or so, researchers and statistical agencies also collected information on *hukou* and non-*hukou* migrants on a largely *de facto* basis through various sample surveys and population censuses. However, the large number of people moving internally as well as the circulatory and temporary nature of some of them hugely complicates the efforts to measure the movement accurately and to address its many implications.

Based on the above understanding and a careful differentiation of migration statistics gleaned from a variety of sources[5] in accordance with their nature (flow vs stock), and temporal and geographic coverage, a matrix set up in Table 1 allows us to make good sense of those numbers and gain an understanding the overall

[4] In the past, state labor recruitment and expropriation of farmland were major drivers of *hukou* change. In recent years, the *hukou* is also used as a tool to "stimulate" the declining urban housing market (as in 2008) and recruit skilled professionals.

[5] Some of these data were collected at the destination; others at the origin (mainly villages).

volume of migration, its variety and trends in the last 30 years. Despite the diversity and the varying quality of these data sets, when analyzed side by side, they not only become useful information but also display some notable broad consistencies, as explained next.

Hukou Migrant Series (A): This series refers to *hukou* migrants and is the only "flow" data series presented in Table 1. The figures refer to the number of in-migrants who are formally granted *hukou* status in the destination (city, town and township) each year. These *hukou* migration figures are drawn directly from statistics published by the Ministry of Public Security (MPS) annually. They represent the total number of all types officially approved changes in *hukou* (residence) within a particular year, from townships to cities; from cities to cities; from townships to townships, etc, most probably excluding moves *within* cities, towns and *within* townships. A portion of *hukou* migration is rural-to-rural migration, particularly involving marriage.

Non-*Hukou* Population Series (Series B-G): This series refers to the *liudong renkou* ("floating population" or "mobile population"), defined as the people staying in an administrative unit (usually city, town, street, or township) other than their place of *hukou* registration (Cai, 2000). The "floating population" is not the *de jure* population, the size of which in some cases (such as Shenzhen) is hugely different (smaller) than that of the *de facto* (Chan, 2009b). Unlike the flow (*hukou*) migration data of Series A, the non-*hukou* population series presented in Table 1 are migrant "stock" figures; i.e., the number of non-*hukou* migrants who reside in a certain locale at a given point in time. Owing to the different purposes, coverage and criteria used in defining the geographic boundary and the minimum duration of stay, the numbers for the floating population in each series may be expectedly quite different even for the same year.

Series B: This series refers to the broadest and most widely used definition of the floating population, which includes anyone without local *hukou* staying in the destination, regardless the length of the stay in a place. The stay can be just as short as overnight or for several years. As such, this series covers a very diverse group of people, such as tourists, people on business trips, traders, sojourners, and peasant migrants, both employed and unemployed. These numbers, reported in the media, vary significantly, reflecting the rather unscientific nature of this series. Some of the national figures are simply educated guesses, others are extrapolations made from sample surveys and rail passenger volume figures, and/or other more reliable series such as Series C-E. Table 1 presents some of the typical figures reported in the Chinese newspapers at certain points in time. These figures should be treated only as rough and broad indicators of trends.

Series C: Unlike the preceding series, this is a systematic series of "floating population" based on actual counts and a narrower definition. They are made available by the Ministry of Public Security from 1997. By law, anyone staying in places other than his/her place of household registration for three days or more is required to register with the police and apply for a *zanzhu zheng* ("temporary resident permit"). Consequently, this group is also categorized as "temporary population" (*zanzhu renkou*) by the police authorities. A large number of floaters fail to comply with this requirement; this helps to explain part of the large discrepancies between Series B and C.

Series D and E: These two series stem from one series published by the National Bureau of Statistics (NBS) that experienced some changes in definitions and coverage over time. The population is defined first on a *de jure* and then on a *de facto* basis. The *de facto* definition stipulates a far longer minimum residence requirement (6 months or one year) than in Series B and C.[6] The NBS calls this group *liudong renkou* (see Liang and Ma, 2004). Elsewhere, as in Table 1, it is termed "temporary population" or "temporary residents" by some researchers (e.g. Yang, 1996), although many in this group stay far longer that what would commonly be

[6] Therefore, Series D and E will show a smaller population than Series B even if the geographic boundaries in defining migration are the same.

considered as "temporary". These two series exclude the most temporary, such as tourists, and shorter-term migrant workers. Though calling this group "temporary," NBS has correctly treated this group as part of the *changzhu* population ("regular residents") in where they stay in its various recent tabulations. The numbers in Series D are larger than those in E even for the same year (such as in 1995) because D is based on migration crossing *smaller* geographical/administrative units than in E.

Series F: This series refers to what is generally known as "rural migrant labor" (*nongmingong*), which is the largest constituent group of the "floating population." This group includes only the working population with rural-*hukou* and which does not have local *hukou* in the destination.[7] The figures are collected from sample surveys conducted in the rural areas. The majority of rural migrant laborers are unskilled or low-skilled workers. Some of these rural migrants are seasonal and are therefore prone to move between the city and the countryside 2-3 times in one year and, as such, they are harder to be enumerated. After rural-*hukou* laborers started to move to seek outside work in the early 1990s, many large-scale national sample surveys of rural migrant labor have been conducted. However, most of these surveys were only conducted once, and are often not totally comparable among each other. The F series in Table 1 consists of two separate series (1988-98, and 2002-2010), compiled from relatively authoritative sources with largely consistent definitions of migrants and geographical boundaries over time. The latest (2010) figure of rural migrant labor is 154.5 million (Cai, et al, 2011).

C. Migration Trends Since the Early 1980s

Based on the figures presented in Table 1, one can identify some broad migration trends: Despite the general increase in the number of migrants in the country over the last quarter century, the annual number of *hukou* migrants recorded by the Ministry of Public Security remained stable, between 17 and 21 million people in that period. In fact, the *hukou* migration rate has declined slightly, relative to the size of the Chinese population. The stability of the number of *hukou* migrants and of the percent in urban areas may reflect strong government intervention in area of *hukou* migration across city, town and township boundaries, through mechanisms such as a quota control.

On the other hand, as shown in Table 1, the non-*hukou* migrant population has been growing since the early 1980s. Generally, the size of the rural migrant labor grew from about 50-60 million in the early 1990s to exceed 100 million in the early years of this century.[8] In 2009, the figure was close to 150 million. However, the trend depicted by Series D is much less smooth and it shows some notable swings: two data points, 2000 and 2005, appear to be quite "out of the line," far larger than the preceding and following years' figures).[9] Another careful examination of the data shows a slow growth in the number of migrants in the second half of the 1990s. This is borne out by the C, D and F series. This slowdown was likely caused by smaller rural outflows related to: (1) the sluggish urban economy in this period, (2) job competition from laid-off workers of urban state-owned enterprises, (3) increasingly protectionist policies used by local governments against recruitment of outsiders, and (4) improvement in the rural economy, at least between 1996 and 1999 (Zhao, 1998; Cai and Chan, 2000).

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[7] A broader definition of "rural migrant labor," which is not used here, includes also those who work in township and village enterprises within the same township. This group is estimated to be about 80 million in 2009 (NBS, 2010).

[8] The numbers and trends for the 1990s are broadly similar to those reported in other studies such as Yang (2004), Zhao (1998), Rozelle et al (1999).

[9] One would assume that the accuracy of 2000 and 2005 figures are higher than the rest of the series because they are from either a full census (2000) or a 1-per cent national sample (2005) while the rest is from annual 1-per-1000 sample surveys. However, my earlier research suggests that there are good reasons to believe that the 2000 Census (similarly, the 2005 "mini-census") may have overcounted the size of migrants while the regular, annual 1-per-1000 survey may have erred in the opposite direction (undercounting the migrant population) (see Chan, 2003). In the latest (2010) Census, much greater efforts have been put into making the numbers more accurate; see my comments reported in Hvistendahl (2010). As this goes to press, a summary report by NBS (2011) that the size of the non-*hukou* population tabulated by 2010 Census had risen to 261.4 million as of November 1, 2010.

The slow migration growth in the second half of the 1990s also corresponds to the general rural-urban migration trends identified by Chan and Hu (2003), and Cai (2002, p. 70), because rural-urban migration made up a large proportion of the rural migrant labor flows. In the early years of the 21st century, demand for migrant labor resumed at a high level, especially after China's accession to the WTO in 2001. Available data in Table 1 show that the annual average growth of the rural migrant labor in 2002-2007 was 6.6 million, compared to an annual average of about 4 million in the 1990s.[10] In 2004, shortages of migrant labor were reported in the Pearl River Delta which had far higher pace of demand growth for migrant workers.[11] Global financial events since the summer of 2008, however, have drastically altered the economic landscape of the Chinese export industry, at least temporarily, where most migrant labor was employed. About 23 million migrant workers lost their jobs in early 2009, but under China's massive fiscal stimulus program, many short-term jobs (especially in the construction sector, such as building railway projects) were created and were able to re-absorb the unemployed. As China's export sector recovered in early 2010, there is even a migrant labor shortage (see Chan, 2010b).

D. The Geography of Migration

Labor migration flows are closely linked to significant disparities in wages between the urban and rural sectors and between regions in China (Chan, 1994; Cai, 1999; 2000; Fan, 2005a). As pointed out earlier, in the last 25 years, the majority of migrants were predominantly non-*hukou* migrants from the rural areas. The lack of sufficient gainful employment in the countryside in many agricultural provinces is the main reason why rural workers have left the countryside. Because of the serious institutional barriers, the rural and urban populations and the respective labor markets operate as two largely separate rural and urban *hukou*-based "circuits" (Chan et al., 1999). The choice for rural migrant workers is largely confined to no job at home or a job at low wages in the cities, as in the classic Lewis' (1954) "unlimited surplus labor" model. Rural migrant workers move across counties or even provinces to make monetary gains through employment as wage-workers or self-employment. Most of them go to nearby towns outside the villages, and about a quarter to one third moves to big cities on the coast.

The 1990 and 2000 censuses and the One Per Cent National Population Surveys in the inter-censal periods (1987, 1995, and 2005) provide useful data to study the geographic patterns of the migration flows in China in recent years. A "migrant" is defined as a resident of more than six months or one year in an administrative unit, who lived in a different administrative unit five years earlier and who is aged 5 or above at the time of enumeration. A summary of the aggregate 5-year *flow* figures are presented in Table 2.[12] It is important to point out that the 2000 and 2005 data define migrants as those crossing *township*-level units while the 1990 and 1995 data define migration only as a move between *county*-level unit boundaries. The 1995 survey reports a total of 33.23 million migrants crossing county-level units in the preceding five-year period. Seventy-two per cent of the inter-county migration was within provinces; the remaining 28 per cent (9.2 million people) were inter-provincial migrants (Table 3).

By 1995-2000, the volume of migration had increased substantially. Based on the same definition of *inter-county* migration, the volume of migration flows was reported to have doubled to 69.3 million, though this number of migrants is likely to be over-counted, as pointed out earlier. Using the 1% microdata from 2000 Census, one can also regroup and estimate the flows by rural/urban origin and destination. The predominant

[10] Assuming that the size of the rural migrant labor was 50 million in 1990 and 90 million in 2000.

[11] The average growth rate of rural migrant labor was about 5.4 per cent in 2002-2007 nationwide while in Dongguan in the Pearl River Delta, this rate reached an average of 18 per cent per year in 2000-2004. Data are from Dongguan Statistical Bureau, see http://tjj.dg.gov.cn/website/web/zhctjnj/2005TJNJ/02/sheet004.htm.

[12] Non-*hukou* migrant *stock* data are also reported in the censuses from 1982 and all the inter-censal surveys, as have been shown in Series D and E in Table 1.

flow during 1995-2000 was from rural to urban areas (50.32 million), followed by urban to urban flows (45.70 million) (Table 2). The intra-urban flows include a large portion of "residential mobility" within cities.

Tables 3 and 4, and Figures 1 to 3 show *inter-provincial* migration in three consecutive five-year periods starting in 1990. The total volume of inter-provincial migration has increased significantly since 1990, from only 10.7 million in 1990-1995 to 38 million in 2000-2005 (Table 4). While the different definitions and procedures used for collecting the data by successive sources would account for a small part of the increase, most of the increase is real. Inter-provincial migration also became more prevalent, accounting for a larger share of all inter-county moves in the 1990s (Table 3), from only 32 per cent in 1990-1995 to about 47 per cent in 1995-2000. The trend is likely to have continued in the last decade.

Figures 1 to 3 show the largest 30 inter-provincial migration flows for the three 5-year periods 1990-1995, 1995-2000 and 2000-2005. The flows are directed primarily towards coastal provinces such as Guangdong and the Changjiang Delta (or the Shanghai region). Table 3 provides more detailed information on inter-provincial in-, out- and net migration flows by province, ranked by net migration volume. An analysis of the in-migration and out-migration figures by province show that major flows between provinces are largely unidirectional. That means the major players in inter-provincial flows were basically either export provinces (such as Sichuan) or import provinces (such as Guangdong). Because of this unidirectional characteristic, the "net percentage" (NET% in Table 3), being the net migration to each province as a percentage of total migration, is a useful simple gauge of the relative share of the individual provinces in inter-provincial migration.

Inter-provincial migration flows in many ways are indicative of the changes in the spatial economy, especially in relation to the demand and supply of low-skilled labor. The trend of moving toward the coastal provinces has intensified in the those three periods (see Ding et al., 2005). Based on the indicator "net percentage," Guangdong was *the* most sought-after destination of inter-provincial migrants for the period 1990-2005. At its peak, this province's net migration accounted for about one third of the nation's total inter-provincial migration in 1995-2000. In 2000-2005, the top three receiving provinces accounted for 45 per cent of the total net migration. At the sending end, the sources were more plentiful. Sichuan, the largest net exporter of migrants over the period 1990-2005, accounting for about -10 per cent of the nation's total net inter-provincial migration. Over time, its relative prominence in interprovincial migration has decreased.[13] By 2000-2005, the share of total migration from the largest four net population exporters (Sichan, Anhui, Henan, and Hunan) was almost exactly the same (-7.4 to -8.4 per cent). In other words, in those 15 years, while there was a convergence of the inter-provincial migration flows into two provinces, origins of these flows became more diverse. This observation is consistent with the patterns shown in the migration flow maps in Figures 1 to 3. The changes reflect the intensification of regional industrial restructuring beginning in the late 1980s, whereby inland provinces lost proportionally more manufacturing jobs to the coastal provinces in the second half of the 1990s and onwards (Yang, 2004), giving rise to the emergence of Guangdong as the "world's factory" around the turn of the century. At the same time, many more poor provinces (both their governments and people) have actively pursued labor exports as an economic strategy in the last ten years, imitating the approach used by Sichuan back in the late 1980s. This greater geographic spread of economic migration and the longer distances migrated were also documented by Skeldon (1990) for the case of Peru, in what he calls the "diffusion" of migration.

A further examination of Table 3 shows that the relative rankings of the provinces remain quite stable in the three periods under study, with the exception of the dramatic reversal of Zhejing from a net exporter in 1990-95 to the second largest net importer in 2000-2005. In the early 1990s, migrants from Zhejiang were known for their ubiquity in the country but the high growth of the provincial economy since the mid-1990s turned it into a major destination of migrants in the twenty-first century. Another point is also worth noting. In

[13] Partly because Chongqing was split from the Sichuan province in 1997.

spite of its being the largest net importer of labor, Guangdong actually registered a noticeable, though still small, amount of outmigration (1.7 million people) in 2000-2005, often directed towards provinces of origin of the in-migrants, such as Hunan and Jiangxi. This outmigration is most likely a return migration (of older migrants).[14]

Studies on inter-provincial migration have argued that regional economic disparities have led to an increase in the number of people moving over long distances (Cai et al., 2001; Lin et al., 2004; Fan 2005a; 2005b). Indeed, some believe that China experienced a continuing rise in inter-provincial disparities *despite* the extraordinary increase in geographic mobility of the population in that period. However, more careful work by Chan and Wang (2008) has demonstrated that the previously observed widening regional economic disparities for 1995-2000 were based on incorrect *de jure* provincial population series, which overstated the inter-provincial inequalities of 2000. They have shown that China's regional economic disparities, as measured by an inequality index (coefficient of variation), began to level off in the mid-1990s and have remained large but unchanged since then (see also Tsui, 2007). It is probable that this levelling off of regional income inequality in the 1990s was related to the numerous programs and efforts, such as the introduction of new tax reforms in 1994 to increase the central government's redistributive capacity (Wong, 1997) and the massive "Western Development Program" of 1999 that consisted of large investments in infrastructure and fiscal policies more favourable to the West region. Basic education was made available in many poor provinces (UNDP, 1999 and Chan and Wang, 2008). Equally important, this narrowing inequality came as an outcome of the rapidly increasing rural labor mobility in that period, as has been examined earlier. The rapid expansion in basic education in many poor provinces may have paved the way for faster development in those provinces later, partly by facilitating especially long-distance migration (more feasible for those individuals with some education). Migration also greatly reduced the population pressure on land in the poor provinces, and offered opportunities of employment, raising incomes in the origin provinces, and the accumulation of job skills, as documented in China and found in other less developed countries (Ma *et al*, 2004; UNDP, 2005).

E. CONCLUSION

The volume of internal migration has expanded steadily since the early 1980s, accelerated in the first half of the 1990s and, again in the first decade of the twenty-first century. While the volume of annual *hukou* migration remained quite stable in the last 30 years, non-*hukou* migration has become more voluminous. The major constituent group of non-*hukou* migrants, the rural migrant workers, numbered about 150 million at the end of 2009. A significant portion of the rural migrant laborers are circulators. In fact, most of them are not expected to stay in the destination permanently.

The geographical patterns of migration also show inter-provincial migration has increased rapidly since the early 1990s, spurred by significant wage differentials between provinces with low levels of economic development and those containing the centers of recent industrial growth. Long-distance migrants have a clear tendency to concentrate in Guangdong, which has since the early 1990s risen to become the core of the "world's factory," and the Shanghai region. Over time, the number of low-income inland provinces from where large numbers of labor migrants originate has also increased. In fact, the idea of migrating long-distance for a better job has gained popularity over time in many provinces, including those in the West region of China. The rising internal migration trends in the 1990s are clearly associated with the trends of narrowing economic disparities among provinces. Migration has helped alleviated rural poverty.

To enhance a more equitable economic growth, China needs to continue promoting education and migration as means to narrow the gaps between the coastal and inland provinces. A major hurdle in narrowing rural-urban and inland-coastal inequalities remains in the *hukou* system. The various *hukou* reform initiatives

[14] See a discussion of a similar issue regarding the extraordinary age profile of Shenzhen in Chan (2010b).

launched in the last decades have so far only marginally weakened the foundation of that discriminatory system, i.e. the separation of two segments of the population and the discrimination against the rural segment (Chan and Buckingham, 2008). Greater strides on implementing the *hukou* reform, and ultimately abolish the system, are needed.

As more women and children from the countryside participate in migration to cities and are staying for increasingly long periods of time, these non-*hukou* residents in cities face acute problems caused by the lack of access to reasonable education, health care services and social security. They also suffer from general discrimination in the urban society. Recently, in May 2010, the world was also shocked by news of a serial tragedy in China's famed export-processing zones: a total of 14–16 suicide attempts of migrant workers (resulting in 12 deaths) took place in just the first five months of this year, in a single giant factory complex, Foxconn in Shenzhen, the world's largest contract electronics manufacturer for major brand names such as Apple, Dell and Toshiba (Chan, 2010b). In the weeks followed as Foxconn moved to control damage by offering significant raises to workers, multiple mass strikes took place at several automobile assembly plants in the nearby Pearl River Delta cities of Foshan and Zhongshan. The workers finally won substantial raises. These recent events have highlighted the plights of young Chinese migrant workers, dubbed "second-generation migrants" in the literature, and, at the same time, reflected a rising aspiration of them to fight for better wages and rights. These remain important issues that China has to tackle in its post-financial crisis era.[15]

[15] Chan (2010a) has postulated a gradual program of abolishing the *hukou* system by granting local urban *hukou to* skilled migrant labourers first and to all other migrants ultimately.

Table 1 Major Aggregate Migration Figures, 1982-2009 (in millions)

	***Hukou* Migrants** (Yearly flow figures)	**Non-*hukou* Population** (Stock figures) or "Floating Population"				
		Accepted general estimates	"Temporary Population"			"Rural Migrant Labor"
			Registered with MPS (mid-year)	National Censuses/ NBS Population Surveys		Estimates (see Sources below)
Geographic boundary (to cross)	City, Town, or Township			Township, Town, or Street	County, or City	Township
Minimum length of stay	No minimum	Usually overnight	3 days	6 months	6 months or one year	Regularly engaged in work outside[c]
Series	A	B	C	D	E	F
1982	17.30	30			6.6 (1 yr)	
1985	19.69	40				
1987	19.73				15.2 [a] (6 mths)	
1988	19.92	70				26.0
1989	16.87					30.0
1990	19.24				21.6 (1 yr)	
1991						
1992	18.70	60-70				
1993	18.19	70				62.0
1994	19.49	80				70.0
1995	18.46			49.7	29.1 [b] (6 mths)	75.0
1996	17.51			60.0		
1997	17.85	100	37.3	61.8		
1998	17.13		40.5	62.4		79.8
1999	16.87	100	40.4	63.7		
2000	19.08		44.8	144.4		
2001	17.01		55.1	NA		
2002	17.22		59.8	108.0		104.7
2003	17.26	140	69.9	105.9		113.9
2004	19.49		78.0	103.0		118.2
2005	19.33		86.7	153.1		125.8
2006	20.60	200	95.3	121.6		132.1
2007	20.84		104.4	120.7		137.0
2008	18.92		116.6	124.3		140.4
2009				123.7		145.3

Notes: [a] the geographic boundary is based on city, county or town.
[b] the geographic boundary is based on county- level units.
[c] Data for 2002-2010 are based on "away for outside work for 6 months or more."
MPS = Ministry of Public Security. NBS = National Bureau of Statistics. MOA = Ministry of Agriculture

Sources: A: MPS (1988-2008a); NBS and MPS (1988)
B: compiled from various newspapers (see Chan, 2006).
C: MPS (1997-2008b)
D and E: NBS (1988), SC and NBS (1985; 1993; 2002; 2007), NPSSO (1997).
F: Data for 1988-1995, are from Lu et al (2002); 1998 is from MOA (2006). Those for 2002-2010 are NBS data (2008 and 2009 figures are in NBS(2010); earlier figures are compiled by Cai and Chan (2010, Table 1)).

TABLE 2 – FIVE-YEAR MIGRATION FLOW FIGURES FROM CENSUSES AND MINI-CENSUSES, 1982-2005 (IN MILLIONS)

Year of Census or Survey	*Five-year period*	*Minimum length of stay for non-hukou migrants*	*Geographic boundary*	*Total volume*	*Hukou Migrants*	*Non-hukou Migrants*
1987	1982-87	6 months	County- and town-levels	30.44	20.5*	10.0*
1990	1985-90	1 year	County-level	33.84	18.3*	15.8*
1995	1990-95	6 months	County-level	33.23	N/A	N/A
2000	1995-2000	6 months	Township-level	124.7	43.0*	80.3*
			Of which:			
			Rural to urban	50.32*		
			Urban to urban	45.70*	N/A	N/A
			Rural to rural	22.52*		
			Urban to rural	4.69*		
		6 months	County-level	69.30*	N/A	N/A
2005	2000-2005	6 months	Province-level	38.04	N/A	N/A

Sources: National Bureau of Statistics (1988), State Council and National Bureau of Statistics (1993; 2002; 2007), National Population Sample Survey Office (1997), and Yan (1998).
NOTE: * Tabulated from 1% microdata of the respective survey or census.

TABLE 3 – INTERPROVINCIAL MIGRATION IN CHINA, 1990-2005 (IN THOUSANDS)

Rank	1990-1995	Migration			NET %	Rank	1995-2000	Migration			NET%	Rank	2000-2005	Migration			NET%
		In	Out	Net				In	Out	Net				In	Out	Net	
1	Guangdong	1,947	221	1,726	16.2	1	Guangdong	11 501	438	11 063	34.3	1	Guangdong	11 996	1 715	10 281	27.0
2	Shanghai	726	122	604	5.7	2	Shanghai	2 168	163	2 005	6.2	2	Zhejiang	5 062	1 041	4 021	10.6
3	Beijing	694	117	577	5.4	3	Zhejiang	2 715	970	1 745	5.4	3	Shanghai	3 025	375	2 650	7.0
4	Jiangsu	969	450	519	4.9	4	Beijing	1 890	174	1 715	5.3	4	Jiangsu	3 290	1 328	1 963	5.2
5	Xinjiang	566	150	416	3.9	5	Xinjiang	1 142	217	925	2.9	5	Beijing	2 246	330	1 916	5.0
6	Liaoning	435	197	239	2.2	6	Fujian	1 346	625	722	2.2	6	Fujian	1 934	802	1 132	3.0
7	Tianjin	223	62	161	1.5	7	Jiangsu	1 908	1 241	667	2.1	7	Tianjin	908	107	802	2.1
8	Shandong	527	382	145	1.4	8	Tianjin	492	104	388	1.2	8	Xinjiang	577	182	395	1.0
9	Fujian	344	220	125	1.2	9	Liaoning	755	380	375	1.2	9	Liaoning	674	416	257	0.7
10	Hebei	503	417	87	0.8	10	Yunnan	733	398	335	1.0	10	Hainan	191	158	33	0.1
11	Nei Mongol	275	249	27	0.3	11	Hainan	218	130	88	0.3	11	Ningxia	74	68	7	0.0
12	Shanxi	158	140	18	0.2	12	Shanxi	383	334	49	0.2	12	Tibet	26	31	-6	0.0
13	Tibet	38	28	10	0.1	13	Ningxia	129	87	41	0.1	13	Qinghai	74	85	-12	0.0
14	Hainan	104	102	2	0.0	14	Tibet	71	35	35	0.1	14	Nei Mongol	394	417	-23	-0.1
15	Ningxia	49	54	-6	-0.1	15	Shandong	904	878	26	0.1	15	Yunnan	469	601	-132	-0.3
16	Qinghai	51	77	-25	-0.2	16	Qinghai	77	123	-46	-0.1	16	Shanxi	210	345	-135	-0.4
17	Yunnan	207	242	-35	-0.3	17	Hebei	770	872	-102	-0.3	17	Shandong	924	1 123	-199	-0.5
18	Zhejiang	466	514	-49	-0.5	18	Nei Mongol	325	441	-116	-0.4	18	Jilin	218	532	-315	-0.8
19	Shaanxi	163	265	-101	-1.0	19	Jilin	254	529	-275	-0.9	19	Gansu	118	494	-376	-1.0
20	Hubei	271	382	-111	-1.0	20	Shaanxi	423	719	-296	-0.9	20	Hebei	612	990	-378	-1.0
21	Gansu	140	251	-112	-1.0	21	Gansu	204	561	-357	-1.1	21	Shaanxi	255	827	-572	-1.5
22	Jilin	150	295	-145	-1.4	22	Heilongjiang	301	940	-639	-2.0	22	Heilongjiang	195	1 020	-825	-2.2
23	Guizhou	152	402	-250	-2.3	23	Chongqing	448	1 103	-655	-2.0	23	Chongqing	427	1 437	-1 010	-2.7
24	Jiangxi	125	514	-389	-3.6	24	Guizhou	261	1 232	-970	-3.0	24	Guizhou	531	1 766	-1 235	-3.2
25	Heilongjiang	224	614	-389	-3.7	25	Guangxi	287	1 838	-1 551	-4.8	25	Guangxi	397	2 123	-1 726	-4.5
26	Guangxi	120	554	-434	-4.1	26	Hubei	606	2 210	-1 604	-5.0	26	Jiangxi	499	2 476	-1 977	-5.2
27	Henan	270	740	-470	-4.4	27	Henan	470	2 309	-1 839	-5.7	27	Hubei	501	2 715	-2 214	-5.8
28	Hunan	215	704	-489	-4.6	28	Jiangxi	236	2 681	-2 445	-7.6	28	Hunan	501	3 328	-2 827	-7.4
29	Anhui	155	744	-589	-5.5	29	Anhui	313	2 893	-2 579	-8.0	29	Henan	280	3 433	-3 154	-8.3
30	Sichuan*	395	1,457	-1,062	-10.0	30	Hunan	363	3 261	-2 899	-9.0	30	Anhui	671	3 836	-3 165	-8.3
						31	Sichuan	590	4 396	-3 806	-11.8	31	Sichuan	763	3 941	-3 178	-8.4
Total		10661	10661					32 330	32 282					38 042	38 042	0	
Inter-Provincial Migration as % of all inter-county migration		32						47						N/A			
Top 5 provinces		4 369	806	3,562	33.4			19 416	1 962	17 454	54.1			25 619	4 789	20 830	54.8

NOTE: NET% = Net migration /National total of in-migration x 100%; * including Chongqing.. Sources: NPSSO (1997), SC and NBS (2002, 2007)

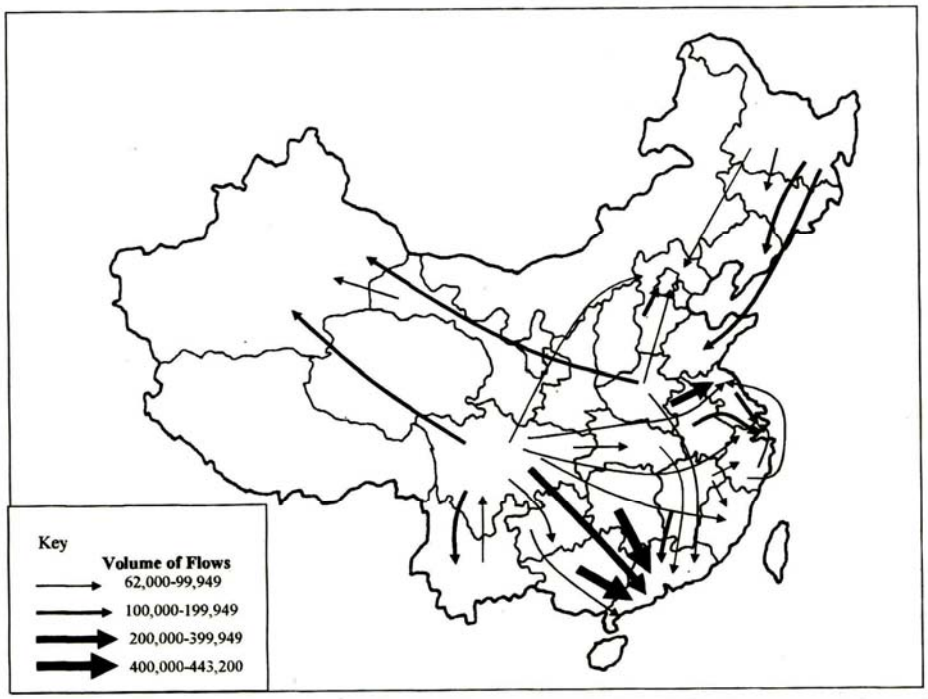
TABLE 4 – INTER-PROVINCIAL MIGRATION, 1990-2005

Period	*(a) Migration from another province (Migration flows)*		
	Total (in millions)	*As % of nation's population at the beginning of the period*	*Increase over the previous 5 years (in millions)*
1990-1995	9.2	0.81	
1995-2000	32.3	2.61	23.1
2000-2005	38.0	3.00	5.7

Year	*(b) Population with hukou in another province (Migrant stock)*		
	Total (in millions)	*As % of nation's population*	*Increase over the previous 5 years (in millions)*
1995	9.3	0.75	
2000	42.4	3.35	33.1
2005	47.7	3.65	5.3

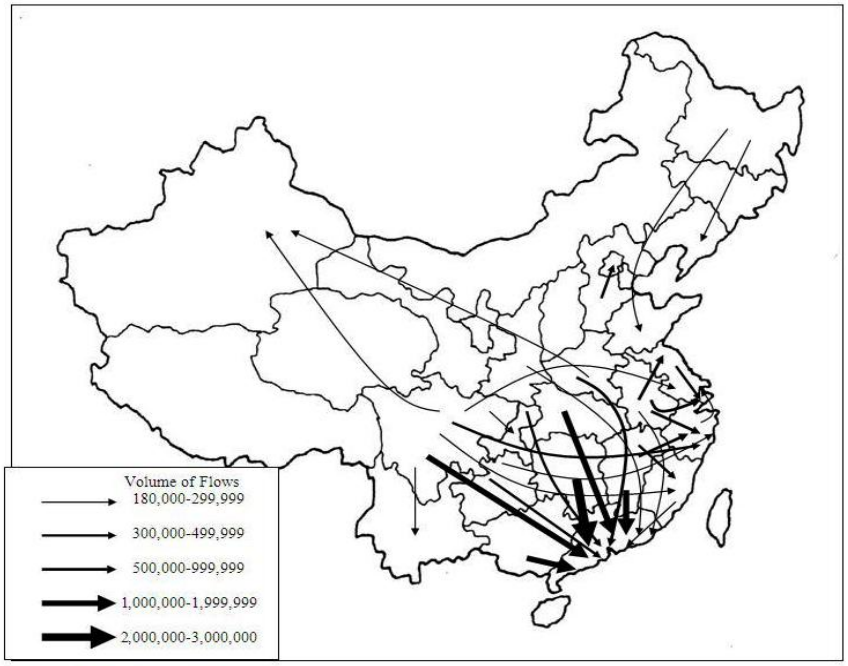
Sources: National Population Sample Survey Office (1997); State Council and National Bureau of Statistics (2002; 2007).

Figure 1. The 30 largest inter-provincial migration flows, 1990-1995



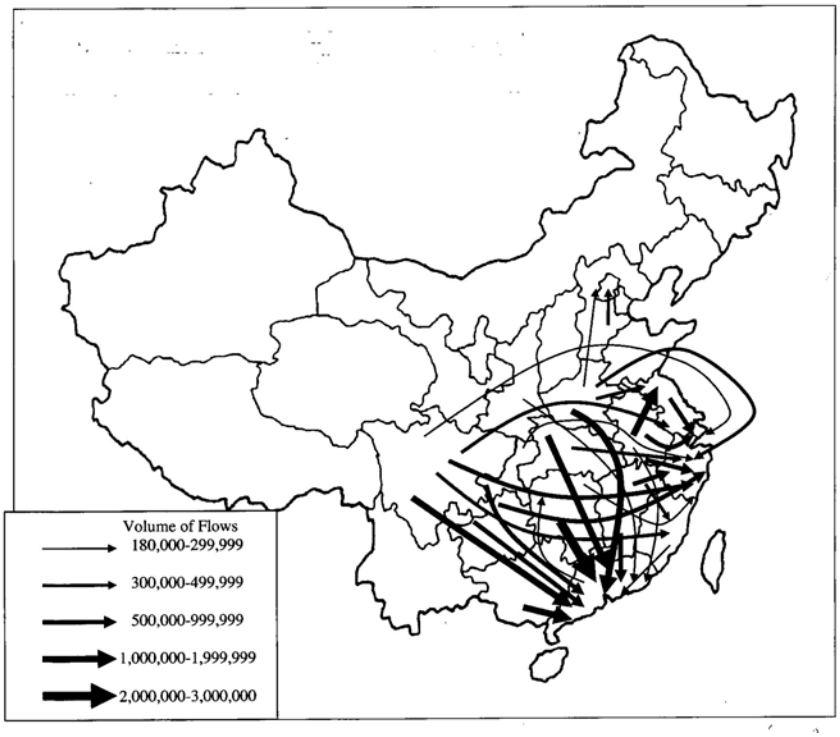
Source: National Population Sample Survey Office (1997)

Figure 2. The 30 largest inter-provincial migration flows, 1995-2000



Source: State Council and National Bureau of Statistics (2002).

Figure 3. The 30 largest inter-provincial migration flows, 2000-2005



Source: State Council and National Bureau of Statistics (2007)

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