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**RESEARCH ON RURAL-TO-URBAN LABOUR  
MIGRATION IN THE POST-REFORM CHINA:  
A SURVEY**

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**Research on Rural-to-Urban Labour Migration  
in the Post-Reform China: A Survey**

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### **ABSTRACT**

*So much has been written on China's post-reform labour migration since the late 1980s, but there is a lack of thorough survey on such studies from both empirical and theoretical perspectives. This paper surveys most recently published, specially large sample survey-based, studies on China's rural-to-urban labour migration. Apart from discussing the recent trends in labour migration in China, including the size, the spatial pattern and temporal dimension of migration, and the demographic and economic characteristics of migrant labourers, which is important for understanding the current situation, it focuses on research findings on policy effects on migrant labourers' behaviours in searching for jobs, choosing occupations, remitting moneys and keeping family ties. This paper also reviews the studies on the consequences such labour migration has brought about to the urban and rural economies, as well as to migrant labourers themselves. It summarises and develops some hypothetical relationships underlying these studies' findings as research priorities for future studies. Our survey shows that although Chinese migrant labourers have the same characteristics as their counterparts in other developing countries, their behaviours, as suggested by many studies, may have been significantly affected by institutional factors, such as the hukou (household registration) system, rural household responsibility system (HRS) and policy-induced labour market segmentation in cities. Nevertheless, empirical evidences are needed for understanding the role of these factors. Further research on the migration effect of these factors can help understand utility-maximising migrant labourers' behaviours in the Chinese context on the one hand, and enrich the economic theory of migration on the other.*

## 1. Introduction<sup>\*</sup>

Labour migration, as a distinct labour market phenomenon associated with China's economic transition from a planned to a market system, has been of great interest to both Chinese researchers and policymakers. Migration research based on various surveys has suddenly flourished since the late 1980s when China began facing mass migration from rural to urban areas. A large number of studies on labour migration have been done by researchers from various disciplines of the social sciences, mainly economists, sociologists and demographers. By western standards, and compared with the migration literature on less developed countries (LDCs) in the past three decades, Chinese migration research is still at a premature stage. Nevertheless, it should not be forgotten that they are dealing with the largest, and perhaps the fastest, rural-to-urban migration in human history. This is taking place in unique social, political and economic setting shaped by three decades of central planning and restrictive administrative control over resource mobility and fifteen years of market-oriented economic transition.

This paper surveys the most recently published large sample based studies on China's rural-to-urban labour migration. Apart from portraying the recent trends in the labour migration in China - the size, the spatial pattern and temporal dimension of migration, and the demographic and economic characteristics of migrant labourers, which is important for understanding what is going on - it focuses on policy effects on migrant labourers' behaviour in searching for jobs, choosing occupations, remitting money and keeping family ties, as well as on the consequences such migration has brought to the urban and rural economies and migrant labourers themselves. Our goal here is to identify gaps in the current migration research in China and to propose some hypothetical relationships underlying these studies as research priorities in the future.

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**TABLE 1** *Major inter-provincial surveys on China's labour migration since 1986*

Surveyor (abbreviation)	Time	Coverage (name of province)	Sample Size	Reference
Institute of Population Studies (IPS), Chinese Academy of Social Sciences (CASS)	1986	16 provinces (HB, IM, HL, LN, SH, ZJ, JX, SD, HA, HB, HN, GD, SC, GZ, SA, NX)	25,125 urban households of 74 cities and towns	W. Wang (1988); Chen (1988)
Rural Development Institute (RDRI), CASS	1987	11 provinces (SH, JS, ZJ, FJ, HE, SX, IM, HL, GX, NX, QH)	All households in 222 villages	Yu (1989)
Institute of Urban-Rural Construction and Economy, Ministry of Construction (IURCE)	1989-90	11 large cities*	313,700 migrants	Li and Hu (1991)
Dept of Policy and Law, Ministry of Agriculture, and East-West Center, USA (MoA-EWPC)	1990	4 provinces (HB, JS, ZJ, GD)	650 rural households in 130 villages	MoA and EWPC (1992)
Ministry of Public Security (MoPS)	1991	18 provinces (BJ, TJ, HE, SX, JL, SH, ZJ, FJ, SD, HA, HB, GD, GX, SC, YN, SA, GS, NX)	All households in 50 rural townships	Q. Zhang (1995)
Rural Development Research Inst., CASS, and Agricultural Bank of China (RDRI-ABC)	1993-94	26 provinces (All provinces excluding HL, SH, GD, TB)	12,673 rural households in 442 counties	F. Li and X. Han (1994); F. Li (1994); X. Han (1995)
Policy Research Unit, CCP Central Committee, and Ministry of Agriculture (PRU-MoA)	1994	11 provinces (HE, HA, SX, AH, HN, HB, JX, JS, SC, GX, GZ)	All households of 75 villages	MoA 'Migrant Labour Survey' Project (1995)
Economic Commission of China People's Political Consultative Conference, Centre for Development Studies of State Council, and China Rural Labour Development Research Association (EC-CDS-CRLDRA)	1994	15 provinces (HL, HA, HE, AH, HB, JS, ZJ, SD, SH, GD, SA, SC, NX, IM, YN)	28 counties, survey at county level, including both rural and urban areas	'Rural Surplus Labour and Labour Market' Project (1995)

*Note:* Province abbreviations are given as follows: BJ=Beijing, TJ=Tianjin, HE=Hebei, SX=Shanxi, IM=Inner Mongolia, LN=Liaoning, JL=Jilin, HL=Heilongjiang, SH=Shanghai, JS=Jiangsu, ZJ=Zhejiang, AH=Anhui, FJ=Fujian, JX=Jiangxi, SD=Shandong, HA=Henan, HB=Hubei, HN=Hunan, GD=Guangdong, GX=Guangxi, SC=Sichuan, GZ=Guizhou, YN=Yunnan, TB=Tibet, SA=Shaanxi, GS=Gansu, QH=Qinghai, NX=Ningxia and XJ=Xinjiang.

\* These cities are Shanghai, Beijing, Wuhan (HB), Guangzhou (GD), Chengdu (SC), Hangzhou (ZJ), Taiyuan (SX), Zhengzhou (HA), Harbin (HL), Anshan (LN) and Jilin (JL).

Sample surveys on labour migration began in the late 1980s. The two largest sample surveys were conducted in 1986-87 targeting permanent urban immigrants and

rural emigrants, respectively (Wang, W. 1988; Yu, Dechang 1989). Towards the end of 1980s there were some questionnaire-based sample surveys focusing on urban temporary migrants, or the so-called ‘floating population’, most of which were conducted in one or two destination towns or cities.<sup>1</sup> Since the 1990s more research funds have been raised from both domestic and foreign sources<sup>2</sup> to support studies in this field. Both the geographical coverage of sample surveys and the size of samples have become larger, and the design of questionnaires has been refined and become more sophisticated in the use of statistics theory. Table 1 provides some background information to the major interprovincial sample surveys published since 1986. Studies based on these surveys are to be reviewed in this paper.

The paper is organised as follows. The next section deals with some conceptual issues in Chinese migration research. Section 3 discusses various estimates of the size of labour migration. Section 4 reviews the survey findings on the spatial pattern and temporal dimension of labour migration. Section 5 reviews survey findings on the economic and demographic characteristics of migrant labourers. Section 6 examines the issues related to migrants’ job search activity and occupational choice. Sections 7 and 8 review, respectively, the discussions of determinants and consequences of labour migration in the transitional Chinese economy. Finally, the last section discusses the problems in current Chinese migration studies and proposes some research priorities for future study.

## **2. Some Conceptual Issues**

To help understand the studies by Chinese researchers, some conceptual issues need to be clarified first. In the Chinese literature, the terms ‘labour or population migration (*laodongli* or *renkou qianyi*)’, ‘labour or population mobility (*laodongli* or *renkou liudong*)’ and ‘floating or transient population (*fudong* or *liudong renkou*)’ have been used without clear definitions. Generally speaking, the term ‘migration’ means

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<sup>1</sup> For example, the 1989 survey on Beijing’s temporary migrants conducted by the Rural Research Centre of State Council and the Research Centre of State Scientific Commission (Gao and Zhao 1989), and the 1989 survey on temporary migrants in two towns in Hubei (Gu *et al.* 1989).

<sup>2</sup> For example, in 1994-95 the Ford Foundation (USA) supported eight major research projects on various issues of China’s labour migration.

movement of people which involves a permanent or semi-permanent change of usual residence, whereas the term ‘mobility’ is often used for all forms of spatial movement,<sup>3</sup> whether permanent or temporary. The precise definition of a migratory move varies with the analysis in hand, though three dimensions are normally considered: the permanence of a move - tourist trips and commuting movements should not be included; the distance of a move - the move has to cross some administrative boundary; and the time dimension of a move - it has to be long enough to enable a full settlement. The targeted groups can be population in general, or labour force in particular, or specific groups of them.

The misuse or indiscriminative use of various migration terms in the Chinese literature may be partially due to a lack of study on conceptual issues and partially due to the effect of the *hukou* (household-based residence registration) system and related government policies upon researchers. In China, as pointed out by many researchers (Yu, Depeng 1995; You 1994), the *hukou* system still effectively controls the legal change of residential status. Permanent urban *hukou* holders can enjoy all government subsidies to urban residents in housing, medical care, education and transportation. Some migrant labourers may be granted temporary urban *hukou* status, but given no access to these subsidies. In the studies focusing on urban immigrants, *hukou* status is the most important criterion for migration (Li and Hu 1991:4-6). Migrant labourers without permanent urban *hukou* are considered as temporary migrants or transient population, no matter how long they have actually settled in cities. In this case, the meaning of the terms floating population and temporary migration can be misleading. In the studies targeting migrants’ place of origin (rural areas), however, temporary or seasonal and permanent or annual out-migration are more clearly defined. This means that some temporary migrants in the former studies may be counted as permanent migrants in the latter.

This survey focuses on rural-to-urban labour migration in China. This means that it is interested in the migration that involves (1) the mobility of working-age population seeking jobs and (2) the mobility that crosses rural-urban boundary.

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<sup>3</sup> It should be noted that ‘mobility’ can also be used in reference to changes in social and economic status, say moving from lower to upper class in a society.

Temporary or seasonal migrants are defined as unsettled migrants who have stayed in an urban area for less than one year, while permanent migrants are defined as settled migrants who have stayed in an urban area for one year or more. It is not easy to adjust all the existing research results with consistent definitions. In the following literature survey, although some important research findings are reinterpreted with the awareness of definitional problem, the effects of conceptual problems can not completely be removed.

### 3. The Size of Migration

Measuring China's rural-to-urban labour migration is no easy task. Temporary or seasonal migration is extremely difficult to measure mainly because of the often transient nature of their jobs and accommodation. Under the current *hukou* system measuring permanent migration is also difficult since some migrants never register with the authorities because of the fear of possible eviction. Some of them also do not have fixed jobs and abodes. There have been basically three types of migration estimation which are respectively based on: (1) nationwide population census or census-type sample survey, (2) statistical modeling based on quantitative relationships of a population, and (3) simple extrapolation using data from various regional sample surveys.

The available estimates by different approaches are given in Table 2. They vary greatly. Needless to say that all the three types of estimation have shortcomings. The census or census-type survey could only cover the migrants who have registered with the authorities and lived in their current places for a certain period (usually one year) at the time of census.<sup>4</sup> It also has to set a maximum period of residence (usually

**TABLE 2** *Estimates of the size of rural-to-urban migration in China for various periods (million)*

Estimating Approach	Total migration	Permanent migration <sup>e</sup>	Temporary migration <sup>e</sup>
1. Census or		1982-87: <sup>f</sup>	

<sup>4</sup> Note that those 'registered with the authorities' include residents who have got urban *hukou* and residents who do not have urban *hukou* but registered with the urban police authority in charge of residence. It is estimated that there are 105 million urban residents without urban *hukou*, who are called 'marginal man' (Han, J. and Li, J. 1994:6).

census-type survey <sup>a</sup>		<ul style="list-style-type: none"> <li>• 15.5 or 3.9 p.a. (SSB 1988)</li> <li>• 23.6<sup>b</sup> or 5.9 p.a. (adjusted<sup>d</sup>) (Yang 1992)</li> </ul> <i>1985-90:</i> <sup>f</sup> <ul style="list-style-type: none"> <li>• 16.8 or 4.2 p.a. (PCO and SSB 1991)</li> <li>• 41.8<sup>b</sup> or 10.5 p.a. (adjusted<sup>d</sup>) (Yang 1992)</li> </ul>	
2. Residual model		<i>1978-83:</i> <sup>g</sup> <ul style="list-style-type: none"> <li>• 28.2 or 4.7 p.a. (Wu 1994)</li> <li>• 43.8 or 7.3 p.a. (Chan 1994)</li> </ul> <i>1984-90:</i> <sup>g</sup> <ul style="list-style-type: none"> <li>• 60.9 or 8.7 p.a. (Wu 1994)</li> <li>• 58.6 or 8.4 p.a. (Chan 1994)</li> </ul>	
3. Linear extrapolation	<i>1989:</i> <sup>h</sup> <ul style="list-style-type: none"> <li>• 60.0<sup>b</sup> (Zhang, Q. 1991)</li> <li>• 70.0<sup>b</sup> (Chan 1994)</li> </ul> <i>1993:</i> <sup>h</sup> <ul style="list-style-type: none"> <li>• 40.0 (Li, F. 1994)</li> </ul>	<i>1992:</i> <sup>i</sup> <ul style="list-style-type: none"> <li>• 7.0<sup>k</sup> (SSB, quoted by Chen and Hu 1995)</li> </ul> <i>1993:</i> <sup>i</sup> <ul style="list-style-type: none"> <li>• 15.4<sup>k</sup> (SSB, quoted by Chen and Hu 1995)</li> </ul>	<i>1988:</i> <sup>j</sup> <ul style="list-style-type: none"> <li>• 55.0<sup>b</sup> (Gu <i>et al.</i> 1989)</li> </ul>
4. Other estimates <sup>c</sup>	<i>1992:</i> <sup>h</sup> <ul style="list-style-type: none"> <li>• 60.0-70.0<sup>b</sup> (quoted by Pan 1994)</li> </ul> <i>1993:</i> <sup>h</sup> <ul style="list-style-type: none"> <li>• 38.7 (Rural Annual Analytical Group 1994)</li> </ul> <i>1994:</i> <sup>h</sup> <ul style="list-style-type: none"> <li>• 50.0<sup>b</sup> (quoted by Yu and Lu 1995)</li> </ul>		<i>1990:</i> <sup>h</sup> <ul style="list-style-type: none"> <li>• 47.1<sup>b</sup> (Zhang, Q. 1991)</li> </ul>

*Notes:*

- a) Subject to census criteria or adjustments based on census criteria.
- b) Including all types of migration in addition to rural-urban migration.
- c) Estimating approach is not given.
- d) Yang's adjustments are as follows. Firstly, the residence criterion for the 1987 survey was changed from six months to one year to match the 1990 census. Secondly, as the 1987 survey included migration within a county or county-level town while the 1990 census did not, the latter was adjusted to the 1987 criterion by a parameter derived from the 1987 survey. See Yang (1992:16, Appendix) for details.
- e) Permanent migration refers to the migration to a new place for one year or more, while temporary migration for less than one year. See Section 2.
- f) Period began at the middle of the first year and ended at the middle of the last year, ie. five years in total.
- g) Period began in the beginning of the first year and ended in the end of the last year.
- h) Accumulated migration up to the end of the indicated year. No information on the period the estimation covered.
- i) Migration flow in the indicated year.
- j) Time is not given. Since the results were published in the early 1989, the estimate might refer to 1988.
- k) No survey criteria on the length of residence are given. We assume that SSB survey would follow the census criteria and only count those who have left home or moved to a new place for one year or more.

five years) to distinguish 'migrant' from 'native' by the time of census. Understandably, unregistered permanent migrants and temporary migrants are excluded from the census. There have been two major surveys of this type: the 1987

national one-percent sample survey (SSB 1988) and the 1990 national census (PCO and SSB 1991). According to the two surveys, the size of permanent rural-to-urban migration increased from 3.9 million per annum in 1982-87 to 4.2 million per annum in 1985-90.<sup>5</sup> In fact, the two surveys are not fully comparable because of the different criteria for the length of residence, ie. the minimum six-month stay in the 1987 survey compared with the minimum twelve-month stay in the 1990 census. Furthermore, the 1987 survey also included *intracounty* migration. Yang (1992:16) attempted to adjust the two surveys to make them comparable (Table 2) but his estimates cannot separate rural-to-urban migration from other types of migration.

The most recent attempts to estimate the size of *de facto* permanent rural-to-urban migrants with statistical approach are made by Wu (1994) and Chan (1994). Their results are estimated by the widely used ‘residual method’ that is based on the relationship between the total and natural growth of an urban population (United Nations 1970), that is,

$$(1) \quad M_{ij,t} = G_{j,t} - N_{j,t}$$

where  $M_{ij,t}$  is the size of net migration from place  $i$  (rural) to place  $j$  (urban),  $G_{j,t}$  is the total population increase in the urban area ( $j$ ),  $N_{j,t}$  is the natural population increase in the urban area, and  $t$  is time.

It should be noted that the estimates using this approach can be sensitive to how ‘urban’ and ‘urban population’ are defined, given available vital data. Both the estimates used official data that were based on official criteria for ‘urban place’ and ‘urban population’, and the authors’ own interpretation of the criteria. As Table 2 shows, for the period 1978-83, the annual average of net rural-to-urban migration was 4.7 million estimated by Wu and 7.3 million by Chan, and for the period 1984-90, 8.7 million by Wu and 8.4 million by Chan, compared with the 1990 census’s result of 4.2 million per annum during the period 1985-89.

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<sup>5</sup> However, in terms of international comparison, the migration data from China’s population census may still underestimate the total migration rate of China, because (1) multiple migrations during the census period were only counted once; (2) return migration was ignored and (3) migrants aged less than 5 years old and migrants died during the census period were also ignored (Zhang S. 1992:13).

The significant differences between the two estimates, especially for the period 1978-83, are mainly due to different approaches used by the two authors to estimate China's 'real' urban population. Simply, Wu's estimates use the registered 'urban nonagricultural population' (UNAP) as a consistent basis to eliminate the effect of inconsistent official criteria for urban places over time (Wu 1994:677). Chan's estimates are based on officially designated urban places. As Wu argued, Chan's approach may overestimate the size of 'real' urban population and hence the size of migration,<sup>6</sup> because of the downgrading of urban places in terms of UNAP since the 1980s (1994:679). Wu's approach may also need a further modification because the official UNAP data have become less reliable particularly since the 1990s when an unprecedented wave of cityward migration took place while the urban *hukou* system remained unchanged.

Estimates made by the extrapolation method are based on data from various sample surveys. Such sample surveys are usually taken in selected regions either the place of origin (rural areas) or the place of destination (urban areas), and they often cover all emigrants or immigrants, no matter whether temporary or permanent and with or without changing *hukou* status. Therefore, extrapolations based on rural surveys may include *intrarural* migration and extrapolations based on urban surveys may include *intraurban* migration. Such extrapolated results can be sensitive not only to the way of sampling, the size of samples and the coverage of survey, but also to the method used for extrapolating. The extrapolated results reported in Table 2 are all based on simple linear extrapolation, and they vary greatly. Since there are no discussions of sampling procedures and the approach for extrapolation these results cannot be taken seriously.

#### **4. The Spatial Pattern and Temporal Dimension of Migration**

The spatial pattern of labour migration is basically determined by resource distribution across regions on the one hand, and opportunity distribution across regions on the other. Generally speaking, provinces with abundant labour relative to land and capital

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<sup>6</sup> Refer to Eq. (1) for the relationship between the size of an area's population and the size of net migration to that area, given natural growth rate.

tend to lose labour, whereas provinces with scarce labour relative to land and capital tend to gain labour. Other things being equal, opportunities are determined by economic growth. Areas where the economy performs well tend to attract people, whereas areas where the economy performs poorly tend to push people away. This means that in most cases migratory labour will flow from the countryside of the regions with a slower growing economy to the cities of the regions with a faster growing economy.

As observed in many LDCs, the general direction of China's labour migration is cityward. As found by the RDRI-ABC survey (Table 1), 78 per cent of rural emigrants went to cities and towns, of which 35 per cent went to large and medium-sized cities (Li, F. 1994:31).<sup>7</sup> The EC-CDS-CRLDRA survey (Table 1) gives a breakdown by the size of urban area, and shows that, of the total migrants, those who migrated to large cities accounted for 33.5 per cent, medium-sized cities 9.3 per cent, small towns 37.8 per cent and rural areas 19.1 per cent, indicating that more than 80 per cent of migrants moved to urban areas, and larger urban areas were more attractive than smaller ones ('Rural Surplus Labour and Labour Market' Project 1995:20).

In terms of migration pattern across regions, the general direction of migratory labour flow in China is from the provinces in the inland (central and western) region to the provinces in the eastern (coastal) region.<sup>8</sup> As shown by some recalculated survey results (Table 3), the main *interregional* migration is from the central and western regions to the eastern region. In the inland regions, the *interprovincial* migrants tend to move out of the inland region, whereas in the eastern region the *interprovincial* migrants tend to move within that region.<sup>9</sup>

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<sup>7</sup> A similar proportion (73 per cent) is found by the PRU-MoA survey (Table 1).

<sup>8</sup> As found by the 1990 census, the net sending provinces are Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan and Hunan in the central region, Sichuan, Guizhou, Yunnan, Shaanxi and Gansu in the western region, and Hebei, Zhejiang and Guangxi in the eastern region, while the net receiving provinces are Beijing, Tianjin, Liaoning, Shanghai, Jiangsu, Fujian, Shandong, Guangdong and Hainan in the eastern region, Shanxi and Hubei in the central region, and Qinghai, Ningxia and Xinjiang in the western region (PCO and SSB 1993; Yang 1992:Table 2).

<sup>9</sup> Currently, about 6 million labourers from Sichuan, the most populous province located in the western region, are working in the eastern region (Chen and Yang 1995:4-5), and about 12 million interprovincial migrants are working in Guangdong, the fastest growing coastal province (Lu 1995).

The 1994 EC-CDS-CRLDRA survey gives another example, which found that the average out-migration rate was 13.3 per cent for all the 28 surveyed counties. However, the rate for the low-income counties was 17.0 per cent, for the middle-income counties was 12.1 per cent and for the high-income counties was 8.3 per cent ('Rural Surplus Labour and Labour Market' Project 1995:19). It should be, however, noted that income level is positively associated with job opportunities. Clearly, the lower the income level and the less the job opportunity, and then more people tend to leave, *ceteris paribus*.

Distance can be considered as a proxy for transportation cost and psychic cost (of being away from family, kinship community and home culture). It can also be considered as a proxy for the cost of acquiring job information as destination contacts will vary as distance changes.<sup>10</sup> As shown in Table 3, although the eastern region is an ideal destination for migrant labourers, only 15 per cent of the *interprovincial* migrants in the western region moved to the eastern region, while, in the central region which is closer to the eastern region, 39 per cent of the *interprovincial* migrants moved to the eastern region.

The effect of distance may be discounted by the experience of migration. Inexperienced migrants may tend to limit their moves within local or home areas because of easy access to information and familiarity with the social and cultural environment, even though this may mean a lower expected income. To some migrants a move to local towns may be the first step of migration before taking a long-distance migration as their migration experience accumulates. Some survey results support this postulation. The RDRI survey (Table 1) found that in 1986 62 per cent of rural emigrants moved within their home counties (Yu, Dechang 1989:17). In 1993, when there were more experienced migrants, more than two thirds of rural emigrants crossed their local county boundaries, and about one third of rural emigrants crossed their provincial boundaries (Li, F. 1994:31; MoA 'Migrant Labour Survey' Project 1995:43).

**TABLE 3** *China's cross-provincial border labour migration by region: Findings from the RDRI-ABC survey*

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<sup>10</sup> See Molho (1986) and Yap (1977) for a comprehensive review of the research on migration effect of distance in Western migration literature.

Sending Region	Receiving Region							
	Migration Structure I (Sending region = 100)				Migration Structure II (Receiving region = 100)			
	Eastern	Central	Western	Total	Eastern	Central	Western	Total
Eastern	<u>71.4</u>	21.8	6.8	100.0	<u>31.5</u>	39.0	15.1	27.2
Central	79.2	<u>18.9</u>	1.9	100.0	47.3	<u>45.6</u>	5.9	43.3
Western	52.2	9.4	<u>38.4</u>	100.0	21.2	15.4	<u>79.0</u>	29.5
Total	72.6	13.1	14.3	100.0	100.0	100.0	100.0	100.0

*Source:* Recalculated from the data of RDRI-ABC survey (Table 1 and Li, F. 1994).

*Note:* The total number of cross-provincial border migrants in the survey was 915, of which 273 were from the east region and 397 from the central region and 245 from the west region (Li, F. 1994:33). In our calculation, 44 international emigrants from the east and central regions are excluded. Underlined values indicate the cross-provincial border but still within the region migration.

The temporal dimension of migration is to some extent related to the spatial pattern of migration. Survey results have suggested that the duration of stay in destination areas tends to be associated with the distance of migration, though this is subject to further evidence support (MoA 'Migrant Labour Survey' Project 1995). This is because longer-distance migration may take a longer time to be paid off. As discussed above, between 1986 and 1993 the share of *intercounty* migration in total migration increased from about one third to two thirds. Meanwhile, the share of annual migration (staying in destination areas for one year or more) in total migration increased from about 20 per cent (Yu, Dechang 1989:17)<sup>11</sup> to more than 50 per cent. For example, the 1994 PRU-MoA survey (Table 1) found that annual migration accounted for 53 per cent (MoA 'Migrant Labour Survey' Project 1995:43) and the 1991 MoPS survey (Table 1) found that annual migration accounted for 58 per cent of migrants staying for 12 months or longer, of which 47 per cent stay for 3 years or longer, while only 21 per cent stayed for not more than 6 months (Zhang, Q. 1994:141). This trend is also reflected by the declining return migration rate - measured as the ratio of return migrants to total migrants within the same period (one year), which declined from about 30 per cent in 1992 to 23 per cent in 1993 (Zhu *et al.* 1994).

<sup>11</sup> The second RDRI survey, aiming at updating the 1987 survey, is being conducted with the support of Ford Foundation.

One question may be whether the duration of stay is determined by busy farming seasons that regularly call back migrants. It can be argued that it is the nature of the job rather than farming seasons that determines the duration of stay. There are seasonal migrants and short-term migrants. The reason for them being seasonal or temporary may be either because of a family arrangement (they have to take some responsibility for looking after farming in the busy season) or because of the unstable nature of the jobs they gained in cities. Obviously, to rational migrants a more stable job means a higher opportunity cost of a temporary return to home. In fact, the recent development shows that most migrants return home in the slack season (ie. around the Chinese New Year's holiday) rather than the busy season.

Nevertheless, as argued by many studies, under the current *hukou* system, most migrants, especially those working in large cities, will end up with a permanent return to their home villages no matter how long they have stayed away and will stay (You 1994). Being excluded from housing, education and food subsidies especially the social safety net, many young migrants would have to stop their 'career' as migrant labour and go home to marry a fellow villager after working and living in cities for 5-6 years ('Rural Surplus Labour and Labour Market' Project 1995:27-8). However, to support this argument we need evidence to show how many of the migrants have permanently returned home, how long they had stayed in cities and how many of the returned migrant labourers have migrated to cities again. The return-migration effect of the *hukou* system is also subject to empirical evidence.

## **5. The Characteristics of Migrant Labourers**

Earlier studies on LDCs have repeatedly shown that migrant labourers are not random samples of the labour force at the origin (Yap 1977; Todaro 1976), because labourers with different characteristics respond differently to pulling and pushing factors. Industrialisation-driven migration is highly selective: only those who are younger (and unmarried in most cases) and better-educated than the average member of the rural labour force, and perhaps have some nonagricultural experience, are more likely to migrate.

All these findings have been further confirmed by the Chinese case as suggested by either national censuses or regional surveys. Many surveys have found

that migrant labourers are much younger on average than non-migrant labourers. For example, the 1993 PRU-MoA survey found that 71.8 per cent of rural emigrants were less than 35 years old, which was higher than that of the total rural labour force by 20.5 percentage-points (MoA 'Migrant Labour Survey' Project 1995:45). There are some regional differences. The 1993-94 RDRI-ABC survey found that rural emigrants in western China are younger than their counterparts in the central and eastern regions. The proportion of those who were less than 35 years old was 82.4 per cent for western China and about 70 per cent for central and coastal China, higher than that of the total rural labour force in the corresponding region by 30.4 and 18 percentage-points (MoA 'Migrant Labour Survey' Project, 1995, p.45). Although such a regional pattern is not repeatedly found by other surveys,<sup>12</sup> case studies on individual provinces seem to be supportive.<sup>13</sup> This may be explained by the fact that, compared with rural labourers in general, younger labourers tend to emigrate and, compared to that of the central and coastal regions, the economic growth in the western region is slower and people in the labour-entrance age group face less job opportunities. However, no study attempts to separate the effect of the *hukou* system on the selection of migration. For example, since the *hukou* system makes migration with family difficult, it is interesting to know whether the *hukou* system tends to make Chinese migrant labourers younger than their counterparts in other LDCs.

Surveys in China have also found that the education level of migrant labourers is generally higher than that of rural non-migrant labourers. The 1994 PRU-MoA survey found that those who have completed junior secondary school (and above) accounted for 55.7 per cent (45.4 for junior secondary and 10.3 for senior secondary and above) of total emigrants, which was 14.4 percentage-point higher than that of total rural labour force (MoA 'Migrant Labour Survey' Project 1995:45). Other surveys found similar or even higher results, for example, 59.6 per cent by the 1991 MoPS survey (Zhang, Q. 1995:29) and 64.9 per cent by the 1993-94 RDRI-ABC survey (Li, F. and Han, X. 1994:10). Surveys on individual provinces found 58.4 per

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<sup>12</sup> The 1994 RDRI-ABC survey shows that the share of emigrants aged 16-35 in total emigrants was 78.5 per cent for the eastern (coastal), 76 per cent for the central and 78.4 per cent for the western (Li, F. and Han, X. 1994:11, with recalculations).

<sup>13</sup> For the Sichuan and Guangdong cases see Chen and Yang (1995:4) and Liu (1995:68).

cent for Anhui and 61 per cent for Sichuan (Pan 1994:85). The differences among surveys are more likely to be due to sampling biases rather than the actual differences.

Migration is also selective in gender. Other things being equal, the nature of occupation determines the dominance of a particular gender. For example, male labourers are more likely to find jobs in construction sites, while female labourers are more likely to be hired as textile/apparel workers. Different attitudes between genders towards the risk and uncertainty involved in migration may also play a role in the gender selection of migration. As the 1990 census results show (Zhang S. 1992:16), the average male-female ratio was 139 for *interprovincial* migrants, 119 for *intraprovincial* migrants and 105 for non-migrants (female=100). Of the provinces with a net in-migration, those dominated by heavy industries and undergoing the nation's major infrastructure projects, eg. Beijing, Tianjin, Shanghai and Liaoning, experienced an increase in gender ratio, while those dominated by labour-intensive manufacturing industries such as Guangdong, Fujian and Jiangsu, experienced a decline in gender ratio.<sup>14</sup> As found by another survey, the male-female ratio in Guangdong was only 91 (Liu 1995:68).<sup>15</sup>

Compared with the national census, regional surveys have found higher male-female ratios. This may be because the national census excluded a larger share of temporary migrants with a lower male-female ratio than that of total migrants. The RDRI-ABC survey found the male-female ratio of total migrants to be as high as 451 in 1993-94 (Li P. and Han, X. 1994:11), while the PRU-MoA survey calculated the gender ratio as 258 in 1993 (MoA 'Migrant Labour Survey' Project 1995:45). While sampling biases may partially explain the differential in the gender ratios of the two

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<sup>14</sup> Guangdong embraces the fastest growing area of the nation, the Pearl River Delta, which is engaged mainly in labour-intensive manufacturing industries, some of which (eg., apparel and electronic assembling) are particularly suitable to female migrant workers.

<sup>15</sup> An extremely low gender ratio of 57, found by the MoA-EWC survey in 1990 gives another example of the effect of sampling bias on gender ratio. Although only four provinces were included in the survey - Guangdong, Jiangsu, Zhejiang and Hebei (Table 1), three of them had a low gender ratio: Guangdong plus Jiangsu and Hebei which also traditionally had the lowest gender ratio in China (Zhang Q. 1992:13).

surveys, excluding Guandong in both surveys may have overstated the level of the gender ratio.<sup>16</sup>

## **6. Job Search Activity and the Choice of Occupation**

As explained by the Harris-Todaro Model, rural-to-urban migration is driven by expected income, ie. actual income discounted by job opportunity in cities (Harris and Todaro 1970). Therefore, the cost of job search and the possibility of success in job search play important roles in individuals' migration decision making (Fields 1975). It can be argued that given the *hukou* system in China, rural labourers tend to take job search activity before they decide to migrate to cities. This is because pre-migration job search not only costs less than post-migration job search, but it can also reduce the risk and uncertainty involved in migration. If this hypothesis is acceptable, the 'blind migration' argument, as suggested by some studies (eg. PRURS 1994:5) is rootless. Furthermore, a migrant labourer's family also involves in migration decision making because not only is the migrant labour often the major part of its labour force, but it also has to bear the cost of the job search. The involvement of the whole family may further increase the rationality and reduce the 'blindness' in migration decision making.

There have been a few surveys that included questions about migrant labourers' job search activities, but there is a lack of analysis on survey results. These surveys found that kinship relationship plays an important role in locating job opportunities, conveying job information, and providing other help in job searching, and that most migrants had already found jobs or were quite sure about job opportunities before they migrated to cities.

The report on the EC-CDS-CRLDRA survey (Table 1) makes two comments on job search: 1) the current rural-to-urban migration is spontaneous and more than 80 per cent of migrants do not rely on any organisations in finding jobs; 2) personal contacts based on relationships of relatives, fellow villagers and friends are crucial in

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<sup>16</sup> The difference in gender ratio between the two surveys may be due to sampling bias. Although the two surveys covered a large area of China (26 and 11 out of China's 30 provinces, respectively, Table 1), they all excluded Guangdong.

finding jobs, particularly in the early stage of the development ('Rural Surplus Labour and Labour Market' Project 1995:22). The PRU-MoA survey (Table 1) found that among the emigrants of the 75 villages in the 11 surveyed provinces, 39.6 per cent found jobs through their fellow villagers who had already migrated to cities, 21.5 per cent<sup>17</sup> found jobs because they had relatives and friends in cities, and 8.7 per cent found jobs through local communities or government organisations or were directly recruited by urban enterprises. The remaining 30 per cent either found jobs by themselves before migration or migrated without immediate job opportunities (MoA 'Migrant Labour Survey' Project 1995:43-4).<sup>18</sup>

Some surveys investigated post-migration on-job job search activities. The 'Immigrant Rural Labour' Project, focused on female migrants, found that more than 50 per cent of the 1021 respondents in the survey had changed their jobs from once to 8 times, or 2.4 times in average (1995:95), suggesting that for many migrants the process of job search would continue after they migrated to cities and found a job. There is a likelihood that migrants' kinship network in cities may still explain this process, but no survey has ever touched this issue.

It is not surprising that many migrant labourers have engaged in what urban native workers think 'inferior' or 'disgrace' jobs. It is estimated that in China 85 per cent of construction jobs have now taken by male migrant labourers (Xiao 1995). Many female migrant labourers have worked on production lines of labour-intensive manufacturing industries. Female migrant labourers have also engaged in domestic services such as baby sitting, house minding and shopping. The RDRI-ABC survey (Table 1) shows that among the migrants surveyed 22 per cent worked in the manufacturing sector, 33 per cent in the construction sector, 10 per cent in the transportation sector, 31 per cent in the service (including restaurants) sector, and only 4 per cent still in the agricultural sector (Han, X. 1995:40). A break-down by gender shows that most male migrants engaged in construction work (39 per cent) and services (25 per cent), while most female migrants engaged in services (58 per cent)

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<sup>17</sup> In the report, both the share of migrants with jobs and the share of migrants without jobs were given as 31.5 per cent, which might be a mistake as it would make the total as 110 per cent. We have reduced the former by 10 percentage points, so that it at least will not overstate the proportion of migrants who found jobs before migration.

and manufacturing industries (31 per cent) (Han, 1995, p.40). It should be, however, borne in mind that the current occupational structure of migrants is not the market solution. In fact, the existing employment discrimination policies in urban areas have confined migrant labourers to those jobs urban authorities think unharmed to native workers (Zhao, S. 1995; Zhao, M. 1995).<sup>19</sup>

Some studies presented the simple relationship between occupation and gender and age (Han 1995:40-1), but no analysis has been done on the relationship between human capital investment (especially education and training) and occupation. It should be noted that job discrimination in the urban labour market may have weakened the relationship between education and occupation. This is because education is not important for simple jobs that rely little on human capital investment. In such circumstances, it may be hypothesised that kinship relationship may play a more important role than education in occupational choice - an interesting phenomenon observed in many surveys. It has been found that migrants from the same village or the same local area (township or county) tend to engage in the same occupation in the same city.<sup>20</sup> Although such findings seem supportive to the above hypothesis more empirical analyses are certainly required.

## **7. The Determinants of Migration**

### *The impact of institutional changes on migration*

Widely used migration models in western economic literature assume, at least implicitly, that there are no administrative controls over labour migration, and

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<sup>18</sup> Refer to 'Immigrant Rural Labour' Project for similar findings (1995).

<sup>19</sup> The Shanghai case provides an example. In Shanghai, all occupations are grouped into three categories: A, B and C. Job vacancies in Category A can be filled by migrant labourers after being advertised and not fully filled. Job vacancies in Category B can be filled by migrant labourers but subject to quotas. Jobs in Category C should never be given to migrants. The number of occupations in the C Category was 23, ranging from taxi driver to hotel bell boy. The Shanghai Labour Bureau decided that migrants who had found jobs in Category C should be dismissed from their positions in a given period (Shanghai Labour Bureau 1995a and 1995b).

<sup>20</sup> For example, migrants from Leqing of Zhejiang mainly engage in garment marketing in Beijing, migrants from Anhui mainly engage in domestic service in Beijing, migrants from Henan mainly engage in rubbish recycling in Nanjing, and migrants from Lu County of

government interventions, if any, are made indirectly and only through the market mechanism. Migration is an individual choice in that utility maximising individuals act in response to changes in the conditions of labour market. Therefore, studies on the determinants of migration focus on analysis of the factors affecting individuals' migration decision making, ie. the expected economic benefits from migration, which are often discounted by deterrents to migration.<sup>21</sup>

In Chinese migration literature, there has been no attempt to establish rigorous theoretical framework explaining individuals' migration behaviour and to carry out empirical tests using survey data. One major reason for this may be that Chinese researchers are facing a totally different institutional environment. Direct government intervention played and to some extent still plays an important role in shaping China's society and economy, as well as labour migration. Studies on the causes of migration focus on the impacts of policy changes and institutional re-arrangements on the supply and demand sides of migration. Analysis used in these studies is often qualitative rather than quantitative, partially because of the unmeasurable nature of policy variables.

There is an agreement among researchers that the post-reform labour migration was facilitated by a favourable institutional environment created by market-oriented economic reforms begun in 1978. From the early to late 1980s, administrative controls over migration and job allocation, which were adopted during the central planning period to facilitate a heavy-industry-oriented industrialisation,<sup>22</sup> were relaxed first in rural areas and then in urban areas along with the reforms. This had positive effects on both the supply and demand sides of labour migration.

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Sichuan mainly engage in building construction in Guangdong ('Rural Surplus Labour and Labour Market' Project 1995; DSNU 1995; Wang, Y. 1994).

<sup>21</sup> Molho (1986) listed some underlying themes of migration analysis in his review article on theories of migration. Similar reviews were made about a decade earlier by Greenwood (1975) and Todaro (1976). These articles draw a general picture of migration studies in western literature.

<sup>22</sup> These controls were part of the central planning system established in the early 1950s in order to achieve China's overambitious goal of a fast heavy industrialisation. This is because the free mobility of resources through market mechanism would do little to help achieve such a goal in a short time in an economy with scarce capital and abundant manpower. See Lin *et al.* (1994) for a theoretical discussion on the heavy industrialisation strategy and the choice of central planning and administrative control over resource allocation.

There were several fundamental reforms that encouraged rural labourers to seek off-farm jobs and to move to cities. Firstly, the shift from collective to a household-based farming system, or the household responsibility system (HRS), granted farm households freedom to optimise their family resource allocation including labour force, in order to maximise household income. Secondly, agricultural productivity was dramatically boosted after the introduction of HRS, which provided a precondition for shifting some labour to off-farm activities. Thirdly, the deregulation of sectoral shift from on-farm to off-farm activities especially rural small manufacturing enterprises allowed households to relocate their labour to the non-agricultural sector at least within the rural area. Finally, the gradual decontrol over the migration to smaller urban areas opened the door of cities to rural residents. By the end of the 1980s, the major barriers to migration, ie. the administrative controls over geographical and occupational mobility were relaxed, though the *hukou* system was still maintained. Rural labourers could leave their homes and migrate to any cities and work there, even though they could not change their *hukou* or residential status<sup>23</sup> (Zhang Q. 1995; Han, J. and Li, J. 1994).

There were also important reforms that have pushed the economy to move towards its comparative advantage and thereby increased the demand for migrant labourers. Firstly, the shift away from industry-, especially heavy industry-, oriented development policy resulted in two important corrections to China's economic structure: (1) within the industrial sector, the proportion of labour-intensive light manufacturing industries has grown rapidly and (2) for the economy as a whole, the share of the once-suppressed service sector has grown rapidly. Secondly, the reform of the investment system had made room for market-driven collectives, especially rural community, private and foreign investors, most of which are engaged in labour-intensive manufacturing or services. Thirdly, the reform of enterprise management has to some extent forced the state-owned enterprises (SOEs) to face market competition, which has made some SOEs turn to low-pay, hard-working and obedient migrant workers (Zhang Q. 1995; Han, J. and Li, J. 1994).

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<sup>23</sup> Maintaining *hukou* control after the decontrol of migration has important policy purpose. It means that even working in cities migrants are not entitled to enjoy the benefits for urban

### Individuals' response to economic incentives

Although institutional changes are important income or income-related factors play a more fundamental role in individuals' migration decision making. Studies on the role of income differential in determining migration focus on two factors: rural-urban income differential and inland-coastal regional income differential. According to official data, from 1984 to 1994 rural per capita income increased from 355 to 660 yuan (in current prices), while urban per capita income increased from 1224 to 3502 yuan (in current prices) (SSB 1985:565-70; SSB 1995:59). The rural-urban income gap did not narrow down after the reform, it instead grew bigger. Another study shows that, by 1992 the urban-rural income ratio reached 2.45, not only higher than that of 1984 (1.71), but also higher than that of the historical record reached in 1978 (2.33) (quoted by Han J. and Li, J. 1994:4). By contrast, migrant workers could earn annual net incomes from at least 1200 yuan to maximum 2500 yuan in 1994 in most destinations, while in large cities such as Beijing and Tianjin, an average migrant worker could have a monthly wage of about 300 yuan, or 3600 yuan a year ('Rural Surplus Labour and Labour Market' Project 1995:25).

Regional income differential is hypothesised as another important factor that has driven inter-regional migration ('Immigrant Labour Survey' Project 1995:44). Regional income differential has increased since the reform. One study reports that from 1980 to 1992 the gap in rural per capita income between the eastern and western provinces increased from 47 to 395 yuan, whereas the gap between the top and the bottom provinces increased from 200 to 1700 yuan (PRURS 1994:4). Another study estimates that if the annual per capita income of rural households in the western region is used as a base (=100), from 1983 to 1992, the central-western ratio decreased from 126 to 115, and the eastern-western ratio increased from 144 to 166. The gap between the western region and the central region was narrowed down, but that between the eastern and the two inland regions was remarkably enlarged (Luo and Liu 1994:6).

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residents and even outside the farming sector they have to fulfil grain sales quotas. This policy aims at checking cityward migration on the one hand and ensuring food supply on the other.

At micro level surveys found that migrants did respond to economic incentives. Some surveys reported the results on individuals' motivation of migration to cities. The findings are very interesting even though there is still a lack of empirical analysis of the data. Chen and Hu (1995), based on the findings from the 1986 IPS survey (Table 1) and the 1990 population census, show that the relative importance of the reasons for permanent migration had changed significantly between the two periods covered by the two surveys (Table 4). For the period prior to the mid-1980s (1949-85) covered by the IPS survey, political or policy-related factors are ranked as number one reason for permanent migration to cities, which accounted for 34.1 per cent of the total permanent migration during that period. Such migration happened following policy changes which allowed some purged or rusticated urban residents (officials, professionals and students) to return to their homes in cities. As the rusticated officials and professionals often took their families to the countryside, the return migration as accompanied family members also accounted for an important share of the total migration (21.2 per cent, ranked the 2nd).

By contrast, between 1985 and 1990, the number one reason for permanent migration to cities changed to 'having found a job or to seek for a job' (34.9 per cent). This clearly suggests that once direct control was relaxed in the mid-1980s, migration was mainly job-motivated. Meanwhile 'moving as an accompanied family member' also became less important (move down to the 6th in the ranking), as most job seekers are young and unmarried.<sup>24</sup>

It is necessary to be careful when attempting to interpret the changes in the ranking of those seemed-to-be uneconomic reasons listed in Table 4. For example, migration as a result of 'being married to an urban resident' and 'living with relatives and friends in cities' could also be economically motivated. Such migrations can economically benefit migrants as there is a better city life to enjoy and a chance to find a city job. In both periods such migrations accounted for a high proportion, and in 1985-90 as the economy moved further towards the market system the ranking of such types of migration also moved up (24.8 per cent in 1949-85, and 31.1 per cent in 1985-90, Table 4).

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<sup>24</sup> See Section 5 for the demographic characteristics of migrant labourers.

**TABLE 4** *Survey findings on the reasons for migration to cities, 1949-85 and 1985-90*

<i>Reason for migration to cities</i>	1985-90		1949-85	
	<i>Ranking</i>	<i>Weight(%)</i>	<i>Ranking</i>	<i>Weight(%)</i>
Having found a job or to seek for a job	1	34.1	8	2.9
Being married to an urban resident	2	19.3	3	13.6
To live with relatives or friends	3	11.8	4	11.2
For unclassified reasons and 'political' reasons*	4	9.7	1	34.9
To have education and training	5	9.2	7	3.3
Moving as an accompanied family member	6	9.0	2	21.2
Transferring to a new post	7	4.4	5	8.9
Being allocated a job after graduation	8	2.1	6	3.8
Returning to home town after retirement	9	0.5	9	0.3

*Source:* Rearranged based on Chen and Hu (1995:8)

*Note:* \*Here 'political reasons' include the return of rusticated urban youth during the Cultural Revolution, the return of purged government and party officials in previous political movements, and the return of demobilised servicemen, as well as other return migration as a correction to the previous policy affected migration.

Changes in the relative importance of 'job transferring' and 'job allocation' under the planning system over the two periods also reflect the impact of reforms on labour market. In the second period, these types of migration became less important than in the first period (6.5 per cent in 1985-90 compared to 12.7 per cent in 1949-85), suggesting market mechanism was replacing the role of planned job allocation and relocation.

Although there is a lack of empirical tests on the determinants of migration decision making, these interesting findings suggest that widely accepted migration models based on economic theory still hold in the Chinese case. Policies have played important roles in China's post-reform labour migration, but it seems clear that migration will not take place unless would-be migrants can foresee good returns from migration.

## 8. The Consequences of Migration

### *The impacts on the rural economy*

China's mass rural-to-urban migration has not brought about a negative impact on agricultural production. Instead, the migration has been associated with a steadily increasing grain output since the late 1980s. This seems to support the hypothesis of disguised surplus labour with zero or near-to-zero marginal productivity.<sup>25</sup> Many surveys found that rural households with a higher labour-land ratio tend to have a higher out-migration rate (eg. MoA and EWPC 1992:Table 2-15). The official SSB data also show that the provinces with a higher level of out-migration had a higher labour-land ratio (5.2) than the country average (3.5) (SSB 1995:330-1).<sup>26</sup> In fact, if only the households with emigrants are considered the ratio is even higher. It may be argued that, other things being equal, a high labour-land ratio means a low marginal output of labour and hence a low opportunity cost of emigration.

Based on a household survey in five Chinese provinces in 1993-94, Wu and Meng predicted the impact of labour relocation on grain production by estimating a household grain production function that allowed the effects of the variation of both quality and quantity of labour on grain output. Their findings suggest that the actual impact of migration on grain output was negligible. This is because, firstly, the output elasticity with respect to the quantity of labour, though statistically significant, was rather small and, secondly, farming experience was more important than education in the Chinese agricultural sector. Migration, though reducing the average education level of the rural labour force, increased the average farming experience level of the rural labour force (Wu and Meng 1995).

There are several important factors that have helped maintain or even improve grain production while better-educated labour withdraws from farming. First, despite the mass out-migration there are still large numbers of surplus labour in the agricultural sector. It has been generally accepted that, of 450 million rural labour

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<sup>25</sup> Li estimated marginal productivity of labour for Chinese agriculture as 0.05-0.07 for the 1950-1960s, 0.02 for the 1970-1980s and 0.002 for 1990 (Li, Z. 1992).

<sup>26</sup> The six provinces are Anhui, Sichuan, Hunan, Hubei, Henan and Jiangxi.

force in China, about 100 million are engaged in farming, about 150 million have been employed by rural enterprises, about 50 million are now working in cities, and about 150 million are still left as disguised unemployed labour in the countryside.<sup>27</sup> With a more sophisticated approach Cai attempted to estimate both the supply of and demand for labour in the countryside independently based on which he then derived his estimate for surplus labour in crop farming as 172 million (Cai 1996:131-2).<sup>28</sup>

In addition, there will be about 7 million population entering working-age in the rural area every year for the rest of this century (Song 1995:88), adding more pressure to the existing surplus labour force. Emigration may cause some adjustment in resource allocation in farming which may involve cost, but it will not result in a labour shortage at least until 2020 when the share of rural labour force in the national total may be reduced to 25 per cent (Han, J. and Li, J. 1994:5).

Second, migrants' high level remittance has helped farming back home. Since the *hukou* system functions as a barrier to permanent settlement in cities with family, it discourages migrant labourers to invest in cities. To secure their future they have to keep a close tie with their family land and village community. This results in a high level of remittance. In fact, almost all savings are expected to be sent back home (Wang, X. 1994:49-50). An estimate based on a sample survey conducted in rural households of Anhui, Sichuan, Hunan, Hubei, Henan and Jiangxi shows that in 1992 an average migrant sent 1200 yuan back home, or 28 billion yuan remittance in total, which is equal to about 15 per cent of the agricultural GDP of these provinces in this year (PRURS 1994:5). Households receiving remittance are now able to use more modern inputs in farming as substitutes for labour and land. One study in Sichuan

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<sup>27</sup> For the latest data on rural labour force, see SSB (1995:84-5) and for the discussion of rural surplus labour, see Gu (1994) and Song (1995).

<sup>28</sup> Cai estimated labour supply independently by applying rural household population dependence ratio (ie. the number of nonworking-age family member over the number of working-age family member) to rural population. The number of labour in non-crop farming was then deducted from the so-estimated rural labourers force to obtain the total supply of labour in the crop farming economy - assuming there was no disguised unemployment in the non-crop farming sector. To obtain the demand for labour in the crop farming sector, the labour days used per unit of land were multiplied by total sown area for each crop, plus the additional labour required in the busy farming season (derived by deducting year-end rural population from busy season rural population) (Cai 1996:131-2).

shows that about one third of remittance was spent on fertilisers, pesticides and plastic films (Chen and Yang 1995:13).

Third, state sales-quota control over grain production is also important in maintaining farm production. As already discussed, the *hukou* system forces migrants to take land as an employment insurance. So long as they keep land, they have to fulfil sales quotas, even though the opportunity cost of grain production has greatly increased along with labour migration.

The rural economy has also been benefited from return migration. Unlike the pattern observed in most LDCs, return migration does not generally mean failed migration in China. In fact, failed migration only accounts for a small proportion of total return migration in China. Most returned migrants have worked in cities for 5 to 7 years and returned home looking for new but more stable opportunities, more likely in the rural nonagricultural sector. There are reports on how returned migrants established their own enterprises and succeeded and how they brought techniques and skills to rural enterprises. In Guangfeng County, Jiangxi, most of the 60 recently opened rural enterprises were owned or managed by returned migrants, and, in Mengcheng County, Anhui, 57 per cent of the existing 21,000 rural enterprises were established by returned migrants (PRURS 1994:5; Wang, X. 1994:51).

There is no estimation on the size of return migration. Survey reports usually do not cover the migration history of rural residents in any way that may help estimate the size of return migration. Although the future trend of return migration is not so clear, it may be argued that rational migrants will tend to stay in cities as long as they can because the longer they have stayed the higher the opportunity cost of returning home. Studies also suggest that returned migrants are likely to emigrate again, especially for those who had a longer experience in city.<sup>29</sup>

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<sup>29</sup> The PRU-MoA survey (Table 1) found that 80 per cent of the emigrants in the surveyed villages in 1994 were migrants in 1993. But it is not clear whether these migrants only temporarily returned home for holidays or had worked as farmers or rural enterprise workers for a certain period (MoA 'Migrant Labour Survey' Project 1995:47).

### *The impacts on the urban economy*

Rural-to-urban migration has broken the policy-fence that separated the rural and urban sectors for decades, and helped change the urban labour employment system from a planned towards a market one. In fact, migrant labourers have formed the most competitive part of the urban labour market, in which labourers are free to choose jobs and enterprises while enterprises are free to select workers. As far as the reform is concerned, the impact of migrant labour market on the old labour system is much more significant and meaningful than the introduction of the 'contract system' to urban SOEs in 1986, which has proved as another version of the 'iron bowl' system, and than the employment system of rural community-run enterprises, which is usually semi-closed and kinship-oriented.

However, it should be noted that there are still policies aiming at protecting urban workers and discriminating against migrant workers. Some researchers argue that under the current policies migrant workers have not really threatened the urban workers because the former go for low-status jobs and the latter go for high-status jobs, thereby leaving no direct competition between the two groups of workers (Han and Li, 1994, p.6). Unfortunately, there is no research on how migrant workers' wages are determined and the interaction between immigrant and native workers in the urban labour market.

All urban enterprises including SOEs have incentives to hire migrant workers. The primary reason for this is that migrant labour costs much less than native labour. One survey found that in average the wage rate of migrant labourers is only half that of native workers. The 5-7 year migration-return cycle as suggested by some surveys has helped keep the migrant labourer's wage rate low. Employers have been free from worrying about continuous on-job training, promotion and superannuation. In addition, enterprises do not have to take responsibility for housing, health care and child education. Including these welfare payments to native employees, the cost of a migrant labourer is only a quarter of that of a native worker (Zhao, M. 1995:45; DSNU 1995:7).

In order to benefit from migrant labour, SOEs bargain hard with authorities for higher quotas for hiring migrant workers and ignore local government policies that SOEs should employ native workers (Zhao, M. 1995:44). Urban enterprises also tend

to increase the working hours for migrant workers at the risk of offending the labour law.<sup>30</sup> To ensure migrant workers stay till the end of their contract some urban enterprises hold a proportion of their salary as security deposit (Zhao, M. 1995:47; ‘Immigrant Rural Labour’ Project 1995:98-9).

In fact, the whole urban economy has benefited from immigration. Lower labour cost has made the economy grow faster, which has stimulated demand for, and hence supply of, goods and services. Under such circumstances, while low migrant labour costs can be maintained through continuous migration, the wage rate for urban native workers (here referring to those of urban SOEs who cannot be fired) may increase and hence urban per capita income may increase, making the urban-rural income differential even bigger. The income effect of migration may be able to explain the continuous and growing migration tide in China, as found in other LDCs.<sup>31</sup> Many studies considered the growing urban-rural income gap as one of the important stimuli to the continuous mass migration to cities (eg. PRURS 1994; Han J. and Li, J. 1994), but there is a lack of understanding of the possible relationship between cheap migrant labour cost and rising urban-rural income differential and hence the so induced migration.

## **9. Problems in Migration Study and Research Priorities**

Having reviewed the findings by the major large sample survey-based studies on China’s rural-to-urban labour migration in the Chinese literature, we are now in a position to discuss the problems appearing in these studies and how to improve migration research in China. In the last part of this section, drawing on the findings of migration research on both China and other LDCs, we will propose some research priorities for future study.

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<sup>30</sup> A survey in the Pearl River Delta found that almost all migrant labourers have to work overtime. Of the surveyed workers 30 per cent worked for 8.5 to 11 hours per day, 54 per cent worked for 11.5 to 13 hours per day and 16 per cent worked for more than 13 hours per day (‘Immigrant Rural Labourers’ Project 1995:98).

<sup>31</sup> See a review by Williamson (1988:433-5) on the debate on the rural-urban income differential in relation to rural-to-urban migration. Also see Greenwood for a review on such studies in the U.S. and the hypothetical explanations (Greenwood 1975:Part 2: Section B).

Studies are generally descriptive rather than analytical though there are large sample survey data available for empirical research. Most survey reports are full of tabulations without sufficient discussion. Although there are many published studies on migration in Chinese, most studies fail to refer to the previous studies or surveys or compare their results with the findings by other research. Some studies are full of hypotheses but, unfortunately, short of empirical tests for these hypotheses. In these studies, there is either a disorder or a step(s) missing in a 'normal' empirical research chain: hypothesis → survey design → hypothesis testing → discussion of empirical findings → policy implications (perhaps → revising hypothesis or new hypothesis). There are a number of important hypotheses proposed in these studies, some of which will be proposed as research priorities in future study in the discussion below.

To improve the understanding of current rural-to-urban migration in China, where the economy is undergoing a fast transition from a planned to a market system, there is a need for some basic studies using available survey data sets. First, although there have been many migration surveys it is statistically not clear what is the most important factor that determines individuals' migration decision making, to what extent the 'traditional' factors such as income differential and opportunities could explain the variance of migration and to what extent the policy factor plays a role, and whether there are the cohort and gender effects of the major determinants. There is apparently a need for estimating a somewhat basic migration model based on a Harris-Todaro-type of framework (Harris and Todaro 1970), with necessary modifications to fit the institutional and empirical realities of China. Researchers should be, however, aware of major modifications and extensions to the Harris-Todaro model, eg. Corden and Findlay (1975), Fields (1975) and Lucas (1985).

Second, from the previous studies it is still not clear how a migrant labourer's income is determined. The answer should be based on human capital theory. Since the determinants of a migrant labourer's income could also explain his/her migration propensity, we need to know what is the most important pre-migration factor ie. education, occupational training and age-related potential labour market experience, in determining a migrant labourer's wage rate. In addition, we also need to know what is the role played by the post-migration factors, ie. on-the-job training, working experience, seniority with one employer, and migration experience. Using available

survey data, a migrant labour earnings function can be estimated, based on the standard human capital earnings function developed by Mincer (1974).

Third, migrant labourers' job search activity is another basic issue in migration research, which bears important policy implications. A migrant labourer, as a decision-maker, must acquire and use job and wage information to take rational action in an ever changing and uncertain environment. Personal characteristics, such as schooling and working experience, kinship relations and geographical location play different roles in acquiring information in both pre- and post-migration job search processes. The role of kinship relations may also be strengthened by urban employers. In the settings that lack both government employment services and private recruitment agents, kinship relationship functions as a referral system that may reduce the employer's risk and cost in searching for 'right' workers. Empirical study is needed to identify particularly the institutional effect, especially the effect of *hukou* system, and the kinship relationship effect upon migrant labourers' job search activities. Although some simplified forms of the labour market search model by Mortensen (1970) and McCall (1970) can be used as a theoretical basis, some modifications according to the Chinese realities are certainly important and necessary.<sup>32</sup>

In addition, there are some other research priorities which focus on the interactions between the rural and urban economies in the context of labour migration, and the interactions between the urban migrant and native labour markets, both bearing important policy implications.

Empirical studies on the welfare effect and the income distribution effect of the *hukou* system in the context of labour migration are strongly recommended. For example, the *hukou* system encourages migrants (1) to save more by minimising their consumption in cities (in fact, it encourages them to take little part in urban social life), (2) to remit money to their home villages rather than invest money in cities, and (3) to minimise their contributions and even evade their tax obligations to cities. The other side of the coin is that the *hukou* system results in a continuous flow of money and human capital (return migration) back to rural areas, which stimulates the rural

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<sup>32</sup> Also see Stark and Bloom's review on migration studies on kinship relationship in western literature (1985:175)

economy. Based on some empirical work, it may be able to predict what will be the gain and the loss in welfare terms to the urban and rural economies if the *hukou* system is abolished.

Little has been known about the function of the Chinese urban labour market in allocating and equilibrating migrant labourers. Under the *hukou* system and the planned employment system of SOEs though undergoing reforms, the urban labour market is segmented. However, the question is whether there is any interaction between migrant labour and native labour markets in both the formal and informal sectors. If yes, to what degree could the wage rate and unemployment rate of different labour markets influence each other? If further reforms of SOEs result in further marketisation of SOE labour allocation and a higher-degree labour market integration, what will be the effect of this on the wage rate of migrant labourers and hence on rural-to-urban labour migration.

The urban labour market effect of the HRS proposed by some researchers ('Rural Surplus Labour and Labour Market' Project 1995) is an important hypothesis that involves the interaction between the urban and rural economies. As argued by some researchers, under the HRS individual households have become independent production units which maximise their income by optimising their resource allocation. Emigration, or more precisely, seeking employment outside the home village, is not only a migrant labourer's own choice but, more importantly, is his/her family's arrangement.<sup>33</sup> Unlike their counterparts in many LDCs, Chinese migrant labourers are not rootless and they are in fact insured by their lawfully protected (under the HRS) farm land. With family and particularly land as a buffer, as argued, the migrant labour wage is highly elastic and the migrant labour market is less risky. All these are subject to tests. If supported by empirical evidence, important policy implications can be drawn from this argument.

There is also a need for more research on the relationships between rural enterprises and migration. There are two hypothetical relationships that need some empirical support: the migration effect of the factor intensity of rural enterprises (Luo

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<sup>33</sup> Similar argument is also proposed in Western migration literature, reviewed by Stark and Bloom (1985).

and Liu 1994; Song 1995) and the rural enterprise effect of return migration (eg. Wang, X. 1994). It is argued that on the one hand, the increase in capital intensity of rural enterprises since the late 1980s has led to the increase in rural out-migration, and on the other hand, the increase in return migration with capital input has promoted further development of rural enterprises. It is apparent that the interaction between rural enterprises and migration is complicated and requires sophisticated framework and rigorous empirical test.

These economy-wide issues, especially the consequences of labour migration on different aspects of the economy, may be analysed by computable general equilibrium (CGE) model (eg. Kelly and Williamson 1984a and 1984b). The CGE analysis is able to contain considerable price endogeneity which cannot be dealt with by other approaches. It allows the interactions among all sectors in the rural and urban economies, and among all product and service markets and factor markets including labour markets, as a result of the activities of all economic agents - utility maximising households and profit maximising producers, as well as policy constraints.

In addition, an agricultural household model is a similar approach but focusing on individual rural households. Since it analyses the interactions between the production side and consumption side of a household, it can estimate the effect of migration on both the household's production function and utility function (Singh, Squire and Strauss 1986).

Labour migration in the transitional Chinese economy is a rather exciting research area. Upon a review covering the new economics of labour migration, Stark and Bloom suggested that LDCs can be used as a good research laboratory for studying migration in general. What they said still holds. It is more true for China because of the facts that China has the world's largest population; that China is undergoing an ever faster industrialisation driven by market-oriented reforms; and that China is experiencing perhaps the largest unprecedented mass rural-to-urban migration in human history.

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