Migration Networks, Hukou, and Destination Choices in China

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Extended Abstract

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Introduction

Ever since the market transition economy infiltrated into China in the late 1970's, a dramatic increase in number of migrants who eagerly execute their migration from one province to another has been monitored. This study examines the destination selectivity patterns among interprovincial migrants in China, which leads to ties of migration network created by progenitors from their province of origin. We are primarily interested in how migration networks and household registration status, *hukou*, affect migrant destination choices.

Discrete choice analysis is utilized to evaluate what sort of factors practically exerts an influence on the selection of destination among migrants. We incorporate both individual- and province-level variables as well as criteria that distinguish the *hukou* status of a migrant. Person-province (destination) data are constructed and a series of conditional logit models are estimated. Our preliminary findings reveal that female migrants and migrants who do not possess a local *hukou* are more likely to rely on the developed migration networks, while younger migrants and those with higher level of educational attainment are generally less likely to depend on the networks.

Theoretical Focus

There has been a significant increase of long distance and/or internal migration in China since the late 1980's. However, in Chinese societal system, the possession of a local hukou makes quite a big difference when it comes to internal migration. A large proportion of interprovincial migrants from rural areas have a propensity to choose a large city in coastal provinces as their destination (Liang and White, 1997; Liang, 2001). Ever since the establishment in 1958 of the household registration system called hukou, the settlement and occupational opportunities for individuals has been controlled. As a result, the strict enforcement of hukou has been a major drawback in internal migration, especially from rural areas to urban areas throughout the country (Chan and Zhang, 1999).

Although the government has been loosened their control by issuing temporary registration cards available since the early 1990's due to the high volume of current migration flow (Liang, 2001), living in a city without local hukou still put migrants at a disadvantage in job allocation, and worst of all, suffer from a lack of basic social services, such as affordable housing and education for their children. It prevents migrants from achieving establishing permanent residency in a city. Under such existing conditions, marriage, home ownership and access to public education for children of migrants are also jeopardized (Liang, 2001; Feng, Zuo, and Ruan, 2002; Roberts, 2002; Solinger, 1999). Nevertheless, migrants can compensate for the

deficit by making a full use of migration networks. Interprovincial migrants previously moved to the destination establish an enclave and invite potential interprovincial migrants from their origin community. For instance, migrants can easily find a position at a restaurant or in garment industry operated by migrants who left from their place of origin earlier. Specifically, a significant number of women from Anhui province are known for becoming a maid through networks (Liang, 2001).

The transition of market economy has generated a strong demand for labors and economic opportunities for migrants. Economic opportunities certainly attract people. As a result, the migrant population tends to concentrate where more economic opportunities exist. A business/factory work comprised the largest proportion, almost 30 percent, of reasons for migration occurred in 1990, which was a significant jump from 10 percent in 1987 (Liang, 2001), which implies migration caused by economic opportunities. As for migration among women, migration due to marriage can be included.

As internal migration is a selective process, traditional migrants tend to possess somewhat higher levels of socio-economic profiles such as high educational attainment level, high occupational status, and etc. Migrants with high educational attainment do not need to depend on migration networks, as their migration is more likely to be associated with job transfer, and they normally move with *hukou*. We speculate that migrants with local *hukou* are less likely

to experience any disadvantages associated with an event of migration; thus, they have no special necessity to form a niche for solidarity. As for young migrants, they are more adventurous and aggressive, in general. They are willing to take risks to travel a long distance whether or not they possess local hukou. If not, they have a great potential to become pioneers who could later create migration networks to connect with their place of origin.

The primary focus of this study is to examine the destination selectivity patterns and the determinants among internal migrants within China who move to a province that differs from their origin. What makes this study unique is that there is no existing study whose perspectives are exclusively corroborated by pieces of evidence combined with such elements as migration networks, *hukou* status, and destination choices. Few studies of Chinese internal migration even mention the effect of networks among migrants. Some previous studies utilize surveys conducted on the selected provinces, regions, and areas as well as having small number of cases, which raises concern about difficulty in generalization as nation-wide trends. Zhao (2003) closely looked into the importance of the networks in labor migration for their decision to move. We will improve upon Zhao's work by distinguishing *hukou* vs. non-*hukou* status. Also, we will investigate the migration selectivity patterns from all the 30 provinces of China based on both individual- and province-level data.

Data and Methods

Data for this study are drawn from the 1995 China 1% Population Sample Survey (China Population Sample Survey Office, 1997) and the 1990 and 1995 editions of the China Population Statistics (State Statistical Bureau, 1991; 1995) to capture the destination choices and dynamics of interprovincial migrants from 1985 to 1990 as well as from 1990 to 1995. The China 1% Population Sample Survey and the China Population Statistics enable to provide us more empirical-oriented information that transcend existing studies related to internal migration in China. As our primary interest is to find out what kind of characteristics greatly influence migrants on their decision to move to another province, the combination of such unique data contents in the sources allows us to extract the destination selectivity among interprovincial migrants so as to measure a possible production of migration network along with a difference in choice between migrants who and who do not possess a local *hukou.*

We consider both individual- and province-level variables in the analysis. A source of individual-level data is the 1995 China 1% Population Sample Survey. The individual-level socio-demographic factors introduced include hukou status, gender, age groups, and educational attainment levels of interprovincial migrants. Province-level data come from the China Population Statistics. The province-level factors incorporated are per-capital industrial output of a destination province as well as total population and land area of their origin province. Our

dependent variable is dichotomous with a choice made to migrate to the certain province over the others. The data contain information regarding household registration status of migrants; therefore, we can conveniently detect whether or not a migrants possesses local *hukou*. Interprovincial migrants who arrived at their destination after September 30, 1990 are selected. Imposing this condition, 22,514 interprovincial migrants are considered for this study.

Discrete choice analysis is utilized to evaluate what sort of socio-demographic factors practically exerts an influence on the decision of destination selectivity among interprovincial migrants within China. A series of conditional logit models are estimated. To comply with the way data should be prepared for the analysis, person-province (destination) data are constructed. Specifically, because we do not consider intraprovincial migration in this study, each individual has 29 destinations to choose from for interprovincial migration in China by excluding their province of origin. The 29 observations for each interprovincial migrant contain various characteristics that represent each province. For example, the first observation of person #1 represents characteristics of Beijing, the second observation of person #1 represents those of province Tianjin, the third observation of person #1 represents those of Hebei, and so on. Among the 29 observations, we detect a province that an interprovincial migrant arrived and designate it as his or her destination province. Also, product terms between each of the individual-level factors and destination choice rate of each province are created so that individual-level data can

be included in our models. Otherwise, we would have the 29 counts of repetitious individual-level information for an individual.

In the subsequent version of this paper, we plan to include distance factors in order to predict longitudinal spatial correlations in the destination selectivity patterns between the 1985-1990 and the 1990-1995 migrant groups in addition to the research questions described in preceding lines.

Preliminary/Expected Findings

Table 1 illustrates the distribution of three most popular destination provinces for interprovincial migrants from each province throughout China. The popular destinations for interprovincial migrants seem to be provinces with high per-capita industrial output located near their province of origin, generally within the region or in the neighboring region. The propensity supports the argument that the vigorousness of economic activity in a destination province attracts migrants and facilitates a strong dynamic of interprovincial migration.

(TABLE 1 ABOUT HERE)

We list the top 10 provinces that receive high number of interprovincial migrants in the periods of 1985-1990 and 1990-1995 and present in Table 2. Guangdong province, located in the southern region, has consistently outnumbered the other 29 provinces in terms of hosting

interprovincial migrants. Jiangsu province in the eastern region has been ranked in the second place. Guangdong and Jiangsu provinces seem to be considered ideal destinations among interprovincial migrants coming from such regions as central and south, southwest, and east. The percentage headed to those two popular destination provinces continue to surpass other provinces can infer that the development of migration networks over time has created a momentum of an influx of interprovincial migrants.

(TABLE 2 ABOUT HERE)

Table 3 represents the output that results in conditional logit models. Our preliminary findings reveal that migrants with hukou are less likely to rely on the network. In fact, the odds of selecting province with stronger ties are reduced to almost one-ninth compared to those of migrants without a local *hukou*. Moreover, migrants who belong to younger age groups are generally less likely to depend on the network. Likewise, as the level of educational attainment increases, a migrant is less likely to rely on the network. The odds become categorically lower as a targeted group being younger and achieving higher level of education compared to the reference group. They are reduced up to 53 percent and 88 percent, respectively. Migrants from a province with a large population are 3 percent less likely to move.

On the other hand, the factors that promote the likelihood of interprovincial migration are female, migrants who do not possess local *hukou*, residing in a province that contains larger

land area, and being bound for a province with high per-capita industrial output. The propensity is shown among them to rely on the developed migrant network. Female are more likely to move to a province where a strong migration network has been established. The odds increase by 1.77 times over male. The odds increase approximately 30 percent as one-unit increase in land area of origin province and industrial output of receiving province. Interprovincial migrants are confirmed to head to a province with high per-capita industrial output. Overall, the preliminary results are consistent with our initial expectations.

(TABLE 3 ABOUT HERE)

Also, we will predict the longitudinal spatial correlations in the destination selectivity patterns. We expect that the longitudinal spatial correlations in the destination selectivity patterns for 1990 to 1995 should be stronger than for the period of 1985 to 1990. The assumption is based on the rapid increase in interprovincial migration as well as higher proportion of non-*hukou* business-related temporary migration during the periods.

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Table 1. Distribution of Top 3 Popular Destinations by Province, China, 1990-1995

Origin Province		Destination Province					
	Total	First	%	Second	%	Third	%
North							
Beijing	1,171	Hebei	18.7	Jiangsu	12.6	Shandong	9.8
Tianjin	619	Beijing	30.0	Hebei	25.0	Shandong	7.8
Hebei	4,165	Beijing	39.5	Tianjin	12.7	Shandong	6.7
Shanxi	1,402	Beijing	23.0	Hebei	16.8	Henan	9.6
Inner Mongolia	2,485	Hebei	22.7	Liaoning	17.4	Shanxi	11.0
Northeast							
Liaoning	1,965	Jilin	15.7	Heilongjiang	15.1	Shandong	11.1
Jilin	2,948	Liaoning	28.9	Heilongjiang	19.3	Shandong	17.3
Heilongjiang	6,136	Shandong	21.4	Liaoning	19.4	Inner Mongolia	15.7
East							
Shanghai	1,221	Jiangsu	42.2	Zhejiang	20.1	Guangdong	6.8
Jiangsu	4,495	Shanghai	35.9	Beijing	9.5	Anhui	7.4
Zhejiang	5,142	Shanghai	18.9	Jiangsu	13.0	Liaoning	6.6
Anhui	7,443	Jiangsu	35.8	Shanghai	21.6	Zhejiang	6.8
Fujian	2,196	Guangdong	20.5	Zhejiang	14.1	Jiangsu	11.7
Jiangxi	5,126	Guangdong	38.0	Zhejiang	16.5	Fujian	14.2
Shandong	3,816	Heilongjiang	14.5	Liaoning	13.5	Beijing	11.1
Central and South							
Henan	7,401	Xianjiang Uighur	21.8	Guangdong	13.4	Beijing	11.0
Hubei	3,816	Guangdong	21.3	Hunan	11.1	Jiangsu	9.5
Hunan	7,039	Guangdong	63.0	Zhejiang	3.8	Jiangsu	3.5
Guangdong	2,209	Sichuan	20.0	Hunan	9.1	Guangxi Zhuang	8.6
Guangxi Zhuang	5,538	Guangdong	79.4	Hainan	4.4	Hunan	2.5
Hainan	1,020	Guangdong	68.7	Fujian	7.1	Guangxi Zhuang	5.8
Southwest							
Sichuan	14,571	Guangdong	24.1	Xianjiang Uighur	11.4	Yunnan	7.0
Guizhou	4,015	Guangdong	16.5	Jiangsu	13.3	Zhejiang	13.0
Yunnan	2,416	Sichuan	27.5	Jiangsu	14.1	Shandong	13.0
Tibet	280	Sichuan	52.1	Yunnan	8.2	Qinghai	6.8
Northwest							
Shaanxi	2,645	Henan	10.8	Gansu	9.6	Xianjiang Uighur	8.0
Gansu	2,511	Xianjiang Uighur	32.3	Inner Mongolia	10.7	Qinghai	7.6
Qinghai	765	Jiangsu	27.2	Gansu	12.3	Shandong	7.6
Ningxia Hui	544	Xianjiang Uighur	26.3	Gansu	22.2	Inner Mongolia	12.3
Xianjiang Uighur	1,498	Sichuan	16.8	Jiangsu	15.6	Shanghai	13.3

Note: Based on 1% sample.

Source: The 1995 China Population Statistics.

Table 2. Distribution of Top 10 Migrant Receiving Provinces, China, 1985-1990 and 1990-1995

	1985-1990			1990-1995		
	Province	Number	Percent	Province	Number	Percent
1	Guangdong	116,177	10.7	Guangdong	19,472	18.3
2	Jiangsu	83,806	7.8	Jiangsu	9,688	9.1
3	Beijing	66,313	6.1	Shanghai	7,260	6.8
4	Shanghai	65,580	6.1	Beijing	6,944	6.5
5	Shandong	61,043	5.6	Xianjiang Uighur	5,659	5.3
6	Liaoning	51,672	4.8	Shandong	5,269	4.9
7	Henan	49,494	4.6	Hebei	5,031	4.7
8	Hebei	46,901	4.3	Zhejiang	4,656	4.4
9	Sichuan	44,054	4.1	Liaoning	4,350	4.1
10	Hubei	41,182	3.8	Sichuan	3,952	3.7
Total Number		1,080,879			106,598	

Note: Data for 1985-1990 are based on 10% sample.
Data for 1990-1995 are based on 1% sample.

Sources: 1990 and 1995 China Population Statistics.

Table 3. Conditional Logit Coefficients of Destination Choices, China

Variables	Model 1 b		Model 1 SE	Model 2 b		Model 2 SE
Hukou status x Destination choice rate --a				-2.27	***	0.14
Gender x Destination choice rate -- b				0.57	***	0.14
Age groups -- c						
Teen x Destination choice rate	-0.91	***	0.25	-0.75	**	0.26
Twenty x Destination choice rate	-0.84	***	0.24	-0.75	**	0.24
Thirty x Destination choice rate	-0.65	*	0.28	-0.48		0.28
Educational attainment -- d						
Elementary school x Destination choice rate	-1.11	***	0.30	-0.77	*	0.30
Junior high school x Destination choice rate	-1.29	***	0.30	-0.90	**	0.30
High school x Destination choice rate	-2.12	***	0.33	-1.46	***	0.33
College x Destination choice rate	-3.23	***	0.37	-2.09	***	0.38
Destination choice rate	10.87	***	0.32	11.10	***	0.33
Per-capita industrial output -- e	0.28	***	0.01	0.27	***	0.01
Total population	-0.03	***	0.003	-0.03	***	0.003
Land area	0.27	***	0.02	0.26	***	0.02
(Total number of cases = 22,514)						

*p<.05; **p<.01; ***p<.001

a: Non-*hukou* serves as the reference category.

b: Boy serves as the reference category.

c: 40 years old and over serves as the reference category.

d: No formal education serves as the reference category.

e: Figures are logged.

Sources: 1995 China 1% Population Sample Survey;
1990 and 1995 China Population Statistics.