Study on the Distribution of Migrant Workers' Employment Destinations——A Case Study of Henan Province, China

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Abstract: The choice of employment destination is the basis of migrant workers' spatial flow, the study on the choice of employment destination is helpful to understand the spatial law of migrant workers' flow from a micro perspective. Through the case study on 11 sample villages generated by the random stratified sampling in Henan Province, authors of this paper find that the distribution of destinations is dispersed in a large area while concentrated in certain places. Most of the destinations are in counties and outside Henan Province. Migrant workers are mainly concentrated in the economically more developed eastern provinces. The central, though a big source of migrant workers, has not formed a core employment area for migrant workers. The main factors influencing migrant workers' choice of employment distances include age, family size, per capita arable land, the village's economic development level, the village terrain, transportation, its distance from the nearest city, and workers' relationship networks. From the perspective of employment destinations, on a provincial scale, the employment attraction coefficient based on the destination's level of economic development and the employment distance, efficiently explains farmers' choice of destinations, that is, destinations with a more developed economy and a shorter employment distance are the top choice for migrant workers.

Key words: Employment destination, migrant workers, distribution, Henan Province.

1. Introduction

Outward employment, as an important means to increase farmers' incomes, has become a universal phenomenon in China. According to statistics, the total number of migrant workers nationwide is 242 million, including 153 million who work outside their home city or province [1]. The wage income has accounted for 29.0% of the total household income for farmers, and this income keeps increasing [2]. One basic element of outward employment is the choice of employment destination because the essence of

migrant flow is the migrant workers' spatial movement from their residential area to the employment area. Therefore, the spatial research on migrant workers' employment destinations is of great significance, as it can reveal the law of migrant workers' flow. Henan Province is the most populated province in China and also a major source province of migrant workers. In 2010, the total amount of inter-provincial migrant workers are 12.07 million [3], ranking first in China for a long time. Henan Province's central location also makes its migrant workers' spatial flow have diversified characteristics. So the study on the spatial distribution of Henan migrant workers' employment destinations can

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represent to such a high degree the status quo in China.

Research on migrant workers has yielded fruitful results, but most of them are from disciplines like economics, sociology, etc.. Related research in China has been focused on migrant workers' motivation and mechanism [4], the influence on the labor input area, the labor outflow area and the overall economic and social development of China [5], the ways and modes of labor transfer [6], the analysis of migrant workers' rational flow from China's system, migrant workers' training and education, the comparison between domestic and foreign labor transfer [7], migrant workers' flow and urbanization, the non-permanent migration of migrant workers, the social stratification of migrant workers, and the status quo, problems and countermeasure studies of regional agricultural surplus labor transfer [8] and so on. Scholars outside China have conducted relatively more research on labor transfer's economic motives [9], individual characteristics [10], family characteristics [11], community factors and relationship networks [12], the distance factor [13] and the impact of labor transfer.

In the discipline of geography, there are relatively fewer studies on migrant workers' spatial distribution. Besides, these studies are mainly concentrated on regional distributions of migrant workers, regional differences, the flowing direction [14, 15], the spatial method of rural surplus labor transfer [7], etc.. Among the previous studies, a macroscopic regional perspective is employed with a normative analysis research method. The research data are mostly based on statistical data. The studies from a microscopic perspective of migrant workers are quite few. As a matter of fact, in recent years, some scholars indeed have carried out relevant studies from this perspective [16-18], but they just study a few villages. The sample size is too small to be representative. In this paper, we aim to study the law and the spatial distribution characteristics of Henan migrant workers' employment destinations. In order to achieve our goal,

the research is based on 1,251 households from 11 sample villages obtained by the random stratified sampling. The samples are typical and representative so that the research results can be applied to the whole country.

2. Data Source

The data of this paper come from the "Henan Farmer Household Survey Database", which the authors help to set up. The research subjects are 1,251 farmer households in 11 villages selected by stratified sampling. This database was funded by the China Natural Science Foundation's Key Projects.

2.1 Sample Selection

Firstly, we use the random stratified sampling method to determine the towns to survey. We mainly consider four factors in the stratification: the terrain, the accessibility, the land type and the economic level. The terrain factor is divided into plains, hills and mountains; the accessibility is divided into suburbs, the medium accessible and the remote; the land type is divided into paddy fields, dry irrigated land and garden lawns; the economic level is divided into the highly developed (more than 10% above the average level), the medium developed ($\pm 10\%$ between the average level) and the underdeveloped (10% below the average level). In the 81 types of towns formed by the above four factors, we weed out 13 types of towns that do not exist and the types of towns that occupy less than 2% of the total provincial towns, thus, 11 types of towns are left, representing 81.91% (1562) of towns in Henan Province. Secondly, in each of the 11 types of towns we have selected, we choose one village from that type as our research object. Thirdly, the process of sample village selection is conducted in accordance with the typical and representative principle. Through field visits and discussions with the person in charge of the town, we select one administrative village which can represent the town's terrain, accessibility, land type and economic level.

2.2 Data Acquisition and Processing

The research group conducted a field survey in April, 2008 with the designed questionnaire. The research group is made up of three small groups. Each includes 6-8 members. They are professors, graduate students and a few senior college students from Henan University and Henan University of Economics and Law. After the survey, the data are coded and recorded. Ultimately a database of 11 villages, 1,251 households is formed. Each of the household in the database has 556 attributes. This database is the basic data source of this research.

3. Distributions of Employment Destinations

The sample migrant workers' employment destinations are in Henan, Guangdong, Shandong, Beijing, Shanghai, Zhejiang, Jiangsu, Tianjin, Shanxi, Fujian, Liaoning, Hunan, Xinjiang, Hebei, Shaanxi, Inner Mongolia, Anhui, Sichuan, Guizhou, Jilin, Hainan, Chongqing, Qinghai, Hubei and other 24 provinces, municipalities and autonomous regions. Among these places, migrant workers are mainly distributed in Henan, Guangdong, Shandong, Beijing, Shanghai, Zhejiang, with a total number of 901 migrant workers, occupying 86.8% of all migrant workers. There are more than 50 migrant workers in each province (or municipality). The above provinces are followed by Jiangsu, Tianjin, Shanxi, Fujian, Liaoning, Hunan, Xinjiang, Hebei, Shaanxi, with the average number of more than 5 migrant workers in each province (or municipality). The remaining provinces only have 1-2 migrant workers each. In general, except the source province, migrant workers are mainly located in coastal areas with more developed manufacturing sector or in those provinces which are near their hometown. There are seldom migrant workers in the northwestern, the southwestern and the northeastern regions. Furthermore, three migrant workers are employed in Brazil, mainly engaged in optical manufacturing and are designated by Chinese companies.

The employment destinations are relatively far and show the feature of being decentralized on the whole while centralized in certain areas. Except for those who work abroad, the average employment distance of sample migrant workers is 817.85 km. Nearly more than half of migrant workers are employed 1,000 km away. The employment distances are dispersed (Fig. 1). There are migrant workers in the distance of 0 km to 3,819 km. The nearest workers are those who work in their village or the near. The remotest workers are those who work in Xinjiang Uyghur Autonomous Region. Migrant workers are mainly concentrated in local areas (within 100 km) and the areas between 800 km and 1,700 km. The proportion of the former is 29.8%, the latter 51.93% and 81.73% in total. The areas in the distance of 800 km to 1,700 km are mainly economically more developed like Guangdong, Shandong, Beijing, Shanghai, Zhejiang, Jiangsu, Tianjin, etc.. According to the survey, the proportion of migrant workers within 100 km is 29.77%, 53.28% within 1,000 km and 95.76% within 1,700 km.

By observing each village, we find that migrant workers are concentrated in provincial scale and point scale. Although they work in various provinces (municipalities, autonomous regions), most of them are concentrated in a few provinces (municipalities, autonomous regions). Shiguan village's sample workers are distributed in seven provincial units, but mainly in Henan Province, accounting for 92.59% of the total sample workers in this village. The 72 migrant workers in Qiangnan village are mainly distributed in Henan Province, too, occupying 90.28% of the total number. There are only one to three people working in other provinces. It is the same with other villages (Table 1), but there are differences in the degree of concentration. According to the survey, the working clusters (referring to the phenomenon that more than 10 fellow villagers working in the same city) are also very obvious on point (city) scale. A few clusters focus a majority of migrant workers. The formation of working clusters is mainly related to the

Fig. 1 The distribution of employment distance.

Table 1 Concentration of each village's migrant workers on provincial scale.

Village	The number of sample migrant workers	The number of employment provinces (municipalities, autonomous regions)	Provincial working cluster	The number of provincial working clusters	The relative size of provincial working cluster
Shiguan Village	108	7	I	1	92.59
Dasiguo Village	94	16	A, H, I, J	4	78.72
Qiangnan Village	72	6	I	1	90.28
Beisong Village	72	10	B, H, I, J	4	87.50
Shanghe Village	44	10	F, I, J	3	68.18
Donglou Village	110	10	A, E, G, H, I, J	6	92.73
Yanwa Village	79	14	C, E, G, I, J	5	78.48
Yinxi Village	111	12	I, J	2	87.39
Yuzhuang Village	99	11	E, I, J	3	81.81
Zugang Village	122	13	A, B, D, I, J	5	82.79
Chenwan Village	127	10	A, E, G, I, J	5	93.70

Note: ① Provincial administrative units are represented by working cluster codes: Beijing A, Tianjin B, Shanxi C, Liaoning D, Shanghai E, Jiangsu F, Zhejiang G, Shandong H, Henan I, Guangdong J. ② The relative size of provincial working cluster refers to the proportion of provincial clustered migrant workers in all sample workers of a certain village.

relationship network factors in migrant workers' decision-making. It is a result of their consideration of both risk avoidance and migration cost reduction.

As for the administrative space distribution of employment destinations, migrant workers are mainly distributed in their county and outside their province. There are fewer migrant workers outside their county within the city or outside their city within the province. According to the survey, there are 253 sample migrant workers working in their home county, accounting for 24.37% of all migrant workers. There are 660 workers working outside their home province, accounting for

63.58% of all migrant workers. The two together account for 87.96% of all migrant workers. However, there are only 41 migrant workers working outside their county within the city, accounting for 3.95%. There are 84 migrant workers working outside their city in the province, accounting for 8.09%. As can be seen, migrant workers either work in the local (their own county) or work in the more developed areas where they can have higher incomes. The distribution of migrant workers along with the working distances shows a "U" shaped characteristic: there are more at both ends while less in the middle. With the

development of modern transportation, migrant workers' physical migration costs become lower, so after they decide to migrate, they focus more on whether they can find work and obtain higher incomes, while they pay less attention to transportation and distance.

As for the three regions in China, migrant workers are mainly concentrated in the eastern region, followed by the central region where the migrant workers come from, and the western region. According to the survey, the number of workers in the eastern region is 632, occupying 60.89% of the total samples. The number of migrant workers in the central region is 385, occupying 37.09%, while the number in the western region is 21, occupying just 2.02%. The eastern region is the most developed area in China. Since the reform and opening-up, the economy in the eastern region has leapt forward and has formed the country's largest labor force market. The rapid development of the manufacturing sector especially has attracted a large number of workers from the central region. Although some eastern provinces are far from the source provinces of migrant workers, high wages and the high possibility of being hired have made these places major employment destinations. In contrast, the central region as a source of migrant workers has not become the largest employment destination, because the manufacturing sector is lagging behind. There are fewer job opportunities and the incomes are low. The western region is both distant and less developed, so there are seldom migrant workers.

4. The Selection Factors for Employment Destinations

The distance is the core issue in the distribution of employment destinations. The employment distance largely influences or determines the administrative area, the administrative space and the employment region of employment destinations. Therefore, in this section, we shall focus on the factors influencing

employment destination selection from the perspective employment distance.

4.1 Variables Design

The factors influencing employment destination selection can be summarized as three class variables: the individual, the family and the community. Among them, the individual variables include the worker's gender, age, educational background, marital status and other factors; the family variables include the population size of the worker's family, the number of labor force, the family type, per capita arable land, generations of the family, the number of family members attending school, and so on; the community variables include the village's economic development level (represented by the village's secondary industry output value), the terrain, the relationship network, traffic conditions (represented by the distance from the village to the nearest highway), the distance from the nearest city and other factors. Except the indicators that can themselves be shown physically, other indicators are assigned as follows: gender: male 1, female 0; marital status: married 1, unmarried 0; family type: nuclear family 1, linear family 2, extended family 3; village terrain: plain 1, hills 2, mountains 3; the relationship network booting: If it is the relationship network that leads the worker to the destination, its value is 1, otherwise it is 0. The correlation analysis demonstrates that the autocorrelation does not exist among these factors, so all the above factors are included in the model.

4.2 Model and Discussion

The employment distances are divided into two categories: the local (within 100 km) and the non-local (beyond 100 km). We employ the binary logistic regression in the SPSS13.0 for analysis and obtain the model's estimated parameters by simultaneously introducing the individual variables, the family variables and the community variables (Table 2). After five iterations, the model ceases its operations

Table 2 The estimated parameters of binary logistic regression for employment distance.

	Estimated parameters (B)	Standard error	Wald value	Degrees freedom	Significance level	Exp (B)
Gender	0.1758	0.2014	0.7616	1.0000	0.3828	1.1922
Age	-0.0381	0.0094	16.3843	1.0000	0.0001	0.9626
Educational background	-0.0464	0.1154	0.1613	1.0000	0.6880	0.9547
Marital status	0.0121	0.1327	0.0083	1.0000	0.9275	1.0121
Family size	0.4385	0.1409	9.6909	1.0000	0.0019	1.5504
Labor force number	0.2274	0.1171	3.7684	1.0000	0.0522	0.7966
Family type	-0.0832	0.2342	0.1262	1.0000	0.7224	0.9202
Per capita arable land	0.3516	0.1549	5.1486	1.0000	0.0233	1.4213
Generations of the family	-0.4062	0.2851	2.0296	1.0000	0.1543	0.6662
The number of family members	-0.0940	0.1490	0.3985	1.0000	0.5279	0.9103
Attending school	-0.0007	0.0001	32.4102	1.0000	0.0000	0.9993
The village's economic Development level	-1.3763	0.2387	33.2459	1.0000	0.0000	0.2525
Village terrain	0.6150	0.1069	33.0818	1.0000	0.0000	1.8497
Village traffic	0.0858	0.0100	73.1476	1.0000	0.0000	1.0895
Distance from the nearest city	0.4890	0.1752	7.7943	1.0000	0.0052	1.6308
Relationship network	3.3212	0.8949	13.7743	1.0000	0.0002	27.6939
Constant						

Note: ① Dependent variable: the local 0; the non-local 1 (the non-local refers to places beyond 100 km). ② The significance level threshold is 0.05.

and the ultimate model has a high degree of fitting. The Nagelkerke R^2 is 0.7447. The significance level of the model's Hosmer & Lemeshow test is as high as 0.000, achieving a relatively satisfactory fitting effect.

In the model, age, family size, per capita arable land, village's economic development level, village terrain, traffic, the distance from the nearest city, relationship networks and other factors have reached a significant level.

Among individual factors, only the age factor reaches a significant level. The age is an important factor for migrant workers, since most migrant workers are young or middle-aged. Meanwhile, the age also greatly influences the choice of employment distance. In the model, the age coefficient is negative, indicating that the older the worker is, the greater the possibility that he or she will work in local places. In contrast, the younger the worker is, the greater the possibility that he or she will work in non-local places. The reason lies in the fact that younger workers are curious about the distant outside world and the wages

there are higher. Some young people even believe that it is boring to work locally. As for elder workers with declining health, their family burden is heavier. With many things to deal with at home, they prefer to work locally.

Among family factors, the family size and per capita arable land reach the significant level. The family size coefficient is positive, indicating that households with larger populations tend to have greater possibilities of family members' working in the non-local places and vice versa. The reason may be that for small families, the workers are mostly parents or other key members. In order to take care of the children and deal with everyday concerns, they often choose to work in the local places. For large families, the children are generally older. The children or the parents work in non-local places will suffer less family tension. The per capita arable land coefficient is positive, denoting that if the per capita arable land is bigger, migrant workers are more likely to choose non-local places as their destinations, and vice versa.

In general, there is no big difference of per capita arable land in the central region due to its large population, so the size of arable land do not have impact on the employment distance. However, in this research the per capita arable land is related to the terrain and the level of economic development. In areas with complex terrain (such as mountainous and hilly areas), the per capita arable land is big, while in the more developed suburban area, the per capita arable land is small. In economically backward areas, due to underdeveloped township enterprises, the surplus labor cannot be absorbed locally, so farmers can only choose to work outside. In more developed areas, the situation is just the opposite.

Among community factors, all of them have reached the significant level. When the village's economic development level coefficient is negative, it indicates that the higher the level of economic development, the greater the possibility that workers work locally, and vice versa. The reason may be that in more developed areas, township enterprises are thriving providing more job opportunities. Farmers choose to work locally because they can make money as well as take care of family members. Meanwhile, the migration risk can also be avoided. Instead, in less developed areas, farmers have to leave their homes and work outside. The village topographic factors work mainly through influencing the level of economic development in the town. If the village traffic coefficient is positive, it indicates that the distance from the nearest highway is long; thus, there is greater possibility for farmers to work in non-local places. This situation is still related to job opportunities formed by the level of economic development. The suburb location determined by the distance from the nearest city is an important factor for migrant workers' choice of employment distance. The nearer they are to the county or city, the greater the possibility that they work in these economic centers. The longer the distance is, the greater the possibility that they work outside. In the survey, we

find that most suburban farmers choose to work in their city. If the relationship network coefficient is positive, it means that the decision of non-local employment location is closely related to the guidance of the relationship network. The relationship networks not only provide workers with information, but may also provide them with financial assistance, daily care and emotional support. Most workers are introduced and accompanied to work by relatives, schoolmates, friends, clansmen and fellow villagers.

Overall, workers at a younger age, with bigger household and more per capita arable land are more likely to work in non-local places. Farmers who live in more developed and relatively flat areas, with better traffic conditions and a shorter distance to the nearest city are more likely to work locally. The relationship networks have an important impact on the destination choice of workers working in non-local places. In addition, the gender, educational background, marital status, the number of labor force, family type, generations of family, the number of family members attending school and other factors do not have a significant impact on the destination choice of migrant workers.

5. The Destination's Impact on Workers' Choice

In the study on migrant workers' choice of employment destination, not only factors in the labor outflow areas should be considered, but also the various factors in the inflow areas, such as workers' familiarity with the destination (for this the above relationship networks have a major impact), the economic development level, the wage level, job chances, employment distances, etc.. Since the GDP (gross domestic product) is an important method to measure the level of regional economic development, the wage level and job opportunities, in the following part we will mainly analyze GDP's and the distance's effects on migrant workers' choice of destination.

Table 3 Employment attraction coefficient in each province.

Area	M	Area	M	Area	M
Beijing	0.41	Anhui	0.36	Chongqing	0.23
Tianjin	0.28	Fujian	0.34	Sichuan	0.38
Hebei	0.54	Jiangxi	0.29	Guizhou	0.16
Shanxi	0.32	Shandong	0.82	Yunnan	0.15
Inner Mongolia	0.26	Henan	0.58	Tibet	0.01
Liaoning	0.39	Hubei	0.40	Shaanxi	0.30
Jilin	0.22	Hunan	0.38	Gansu	0.20
Heilongjiang	0.27	Guangdong	0.90	Qinghai	0.14
Shanghai	0.47	Guangxi	0.23	Ningxia	0.14
Jiangsu	0.81	Hainan	0.09	Xinjiang	0.11
Zhejiang	0.62				

Note: M stands for the employment attraction coefficient.

In general, the main purpose of migrant workers is to have a higher wage income, therefore, their top option would be a place near their home where they are able to find a job with a high wage. The economically developed areas often offer more jobs and higher wages, so migrant workers generally choose these areas. However, at the same time, migrant workers also take the distance factors into account. If they work locally, there is little migration risk because of the relatively abundant social resources. As a result, if there are local job opportunities, migrant workers tend to work locally. Besides, they can take care of other family members if they take the local job. If there are no local job opportunities or the wages are low, farmers will choose to leave and work outside. In order to comprehensively analyze the effects of the economic development level and employment distance on workers' destination choice, we hereby propose the concept of employment attraction coefficient.

$$M = \alpha \times \frac{e}{e_{\max}} + \beta \times \frac{d_{\max} - d}{d_{\max}} \quad (1)$$

In this formula, M stands for the employment attraction coefficient, ranging from 0 to 1. The greater the value is, the greater the employment destination's attraction and the greater the possibility of migrant

workers' working there. e represents the GDP of the destination, d is the railway distance from the destination to the source city of migrant workers, $e_{\max}$ is the destination's maximal GDP, and $d_{\max}$ is the maximal railway distance. α and β are empirical coefficients, where $\alpha = 0.2$, $\beta = 0.8$. According to Eq. (1), the employment attraction coefficients of each province (municipalities and autonomous regions) for migrant workers from Henan Province can be calculated as follows (Table 3).

The employment attraction coefficient helps explain the employment destination choice of Henan migrant workers. According to the calculation, the correlation coefficient of the number of workers in each province and the employment attraction coefficient is 0.782 (the significance level is 0.000), indicating that the area with a bigger employment attraction coefficient has more migrant workers from Henan Province. If the employment attraction coefficient is smaller, there are fewer migrant workers from Henan Province. Based on these calculations, among the 31 provinces (municipalities and autonomous regions) in mainland China, the provinces whose employment attraction coefficients rank the top five are Guangdong Province (0.90), Shandong Province (0.82), Jiangsu Province (0.81), Zhejiang Province (0.62) and Henan Province (0.58). These provinces have relatively more

developed economies and shorter distances to migrant workers' hometowns, so most migrant workers choose to work there. The corresponding numbers of migrant workers there are 240, 105, 29, 55 and 356. The provinces whose employment attraction coefficients are in the bottom five are Qinghai Province (0.14), Ningxia Hui Autonomous Region (0.14), Xinjiang Uyghur Autonomous Region (0.11), Hainan Province (0.09), and Tibetan Autonomous Region (0.01). The numbers of workers there are very small: 1, 0, 8, 1 and 0, respectively.

6. Discussions and Conclusion

The choice of employment destination is the basis of migrant workers' spatial flow, the study on the choice of employment destination helps to explain the spacial law of migrant workers' flow from a micro level. Through the empirical research on 11 sample villages of different types in Henan Province, the following conclusions can be made.

Firstly, the employment destinations are scattered in a large area and concentrated in certain places. The county and the outside provinces have a big advantage over other places. The employment distances are dispersed on the whole, showing that migrant workers' choices of destinations are various. Meanwhile, the distances are concentrated in some figures, meaning that the employment destinations are clustered. Migrant workers either choose to work locally or choose the more developed non-local areas where they can have a higher wage. The possibility for them to choose places outside their county within the city or outside the city within the province is relatively low. In the three major regions in China, migrant workers are mainly concentrated in the more economically developed eastern provinces. The central region as the source of migrant workers does not form the core area of employment destinations. With more modern transportation, the distance factor has an intricate impact on the number of migrant workers. Migrant workers normally tend to be

concentrated in certain provinces with more developed manufacturing.

Secondly, on provincial scale, the economic development level of the employment destination and the employment attraction coefficient in employment distance to a large extent explain farmers' choice of employment destination, that is, more economically developed areas with shorter distances are their first choice.

Last but not the least, the main factors influencing migrant workers' choice of employment destinations are age, family size, per capita arable land, the village's economic development level, the village terrain, the village's traffic, the distance from the nearest city, relationship networks and so on. Migrant workers' choice of employment destinations is a result of comprehensive consideration of the individual, the family and the community factors, so it is rational. Among all the factors, the intentions to cut household management costs and to avoid migration risk play a key role, so the government should pay attention to the social security undertakings and social services development in labor outflow areas. At the same time, the labor flow market should be regulated and the risk of migration should be reduced so as to facilitate the rational flow of migrant workers. The geographic environmental factors have significant effects on migrant workers' employment destination choice. This research has not found that with the development of modern transportation and communications industry, geographical factors' importance in explaining differences in rural areas is declining.

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References

- [1] Department of Human Resources and Social Security. 2011. Annual Statistical Bulletin on Human Resources and Social Security Development 2010 [EB/OL]. Accessed June 10, 2013, http://www.molss.gov.cn/gb/zwxx/2011-05/24/content_391125.htm.
- [2] Survey Team of National Bureau on Rural Society and Economy. *Yearbook of Rural Household Survey 2010* Beijing: China Statistics Press.
- [3] Qu, C. R. 2011. Number of Migrant Workers Working Near Their Home Exceed Outside Province Firstly in Henan Province [EB/OL]. Accessed June 10, 2013, http://www.cicn.com.cn/content/2011-12/02/content_107045.htm.
- [4] Yang, X. S. 2000. "Determinants of Migration Intentions in Hubei Province, China: Individual versus Family Migration." *Environment and Planning A* 32: 769-87.
- [5] Liu, X. M., and Tian, W. M. 2005. "Study on Contribution of China's Rural Labor Transfer to Economic Growth." *Management World* (1): 91-5.
- [6] Dong, W. Z. 2003. "Rethinking on the Transfer Way of Rural Labor Force." *Chinese Rural Economy* (9): 65-68.
- [7] Huang, A. Y. 2005. "A Comparative Study on Agricultural Labor Transfer between the Mainland and Taiwan." *JAC Journal* (2):171-6.
- [8] Liu, R. Z. 1998. "Economic Analysis of the Rural Surplus Labor Transfer in Henan in 1990." *Zhongzhou Journal* (5): 46-49.
- [9] Stark, O., and Taylor, J. E. 1991. "Migration Incentives, Migration Types: The Role of Relative Deprivation." *The Economic Journal* 101: 1163-78.
- [10] Greenwood, M. J. 1981. "Human Migration: Theory, Models, and Empirical Evidence." *Journal of Regional Science* 25: 521-44.
- [11] Massey, D. S. 1993. "Theories of International Migration: A Review and Appraisal." *Population and Development Review* 19 (3): 431-66.
- [12] Portes, A., and Sensenbrenner, J. 1993. "Embeddedness and Immigration: Notes on the Determinants of Economic Action." *American Journal of Sociology* 98: 1320-50.
- [13] Liang, Z., and White, M. J. 1997. "Market Transition, Government Policies, and Inter-provincial Migration in China: 1983-1988." *Economic Development and Cultural Change* 45 (2): 321-39.
- [14] Li, Y. J. 1999. *Regional Research on Transfer of Agricultural Surplus Labor*. Shandong: Shandong People's Publishing Press, 220-8.
- [15] Cai, F. 1998. "Regional Characteristics of Chinese Labor Migration in Transitional Period." *Contemporary Asia-Pacific* (7): 19-23.
- [16] Gao, G. H., Li, X. J., and Qiao, J. J. 2009. "Research on the Influencing Factors of Employment Location Choice for Farm Households in Agriculture Area of Central China: A Case Study for Three Sampling Villages in Henan Province." *Geographical Research* 29 (6): 1484-93.
- [17] Gao, G. H., Liang Y. H., and Li, X. J. 2007. "Research on Scale Type of City and Town as Employment Destination by Farm Household in Rural Areas of Central China——A Case Study for Three Sample Villages in Henan Province." *Economic Geography* 27 (6): 922-6.
- [18] Gao, G. H., Cheng, S. L., and Li, X. J. 2008. "Research on Employment Cluster by Farm Household in Rural Areas of Central China——A Case Study for Three Sample Villages in Henan Province." *Economic Geography* 28 (2): 313-7.