

Return Location of Migrant Workers: A Case Study of 14 Sample Villages in Henan Province, China

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To cite this article:

Genghe Gao, Yali Deng, Yidan Yuan, Weili Zhang, Jiaqi Zhang, Menghan Jin. Return Location of Migrant Workers: A Case Study of 14 Sample Villages in Henan Province, China. *Earth Sciences*. Vol. 10, No. 4, 2021, pp. 145-156. doi: 10.11648/j.earth.20211004.11

Received: June 29, 2021; **Accepted:** July 21, 2021; **Published:** July 27, 2021

Abstract: The return of migrant workers is an important trend in labor mobility in China. The location of the return determines the direction of the flow and affects the choice of settlement. Based on first-hand data from a field survey, statistical analysis and binary logistic analysis methods are used to analyze the location characteristics and influencing factors of the return flow. The study found that (1) returning to the county is the basic spatial feature of the return of migrant workers. Most workers return to villages and counties outside the township. Before returning, most worked in other cities and counties. Counties and small towns near the village have become the main sites for migrant workers' return to employment. Although the general trend of rural-urban migration has not changed, the intensity has declined to a certain extent. (2) The main reason for return is to take care of the family, followed by old age, difficulty finding a job, low wages and high costs, poor health, etc. In addition, hometown employment conditions have an impact. The push from other places and the local pull work together on migrant workers, eventually producing a return pattern. (3) Most return flow has occurred in the last 5 years, and it has been intensifying. Return flow and outflow are the two basic forms of labor mobility. Under normal circumstances, migrant workers choose to return when they cannot obtain a higher income or cannot find a job. It is foreseeable that as the county-level economy continues to develop, the trend of return will continue to strengthen. (4) Factors such as years of education, skills, working years, number of work sites, family generation, distance from the city, and relative position in the village reached significance in the regression model for the choice to return to the county. Only the family generation coefficient was negative, and the other coefficients were positive. Employment and income and taking care of the family are the main mechanisms influencing migrant workers' return location selection.

Keywords: Return, Location, Migrant Workers, Nonpermanent Migration

1. Introduction

Population migration and mobility, common phenomena in the process of socioeconomic development, are the most important factors in the development of regional population dynamics. The existence of and changes in migration and mobility directly and indirectly influence the regional economy, social development, and even the ecological environment. Under the influence of social transformation and the urban-rural dual economic system, the surplus labor

in rural areas in China has flowed between urban and rural areas on a large scale since the mid-1980s. This has led to wave after wave of "migrant workers" and several large-scale "return waves", which follow patterns different from those of international population migration and show unique development trends. Especially in recent years, the scale of return has continued to increase because of changes in the external environment, including industrial transfer and the implementation of the coordinated regional economic development strategy of China, as well as changes specific to migrant workers. The problem of the return of migrant

workers has become one of the focal points of economic and social life, and research on return has also received increasing attention from the academic community. The total number of migrant workers in China reached 288.36 million in 2017, an increase of 25.49% compared to the 229.78 million in 2009. The phenomenon that the proportion of migrant workers engaged in interprovincial mobility decreased yearly from 2009 to 2017, countrywide and regionally, indicates that many farmers who originally chose to migrate across provinces, especially to work in the Yangtze River Delta and the Pearl River Delta, have returned to their own province. It also shows that local migrant workers (referring to migrant workers working within the township area where their household registration is located) account for approximately 40% of all migrant workers, and the growth rate of this group is faster than that of outside migrant workers (referring to migrant workers working outside the township area where their household registration is located). In addition, the data from a national monitoring survey on migrant workers performed by the Chinese National Bureau of Statistics show that the percentages of migrant workers in 2009 and 2017 were 62.5% and 59%, respectively, in the eastern region; 17% and 20.6%, respectively, in the central region; and 20.2% and 20.1%, respectively, in the western region [1, 2]. The overall inflow of migrant workers is still concentrated in the eastern region, but the rate is decreasing year by year. Migrant workers are gradually shifting to the central and western regions, in which the reflux trend is obvious and remains stable.

The motivation for migration and mobility is to find a satisfactory location, and for migrant workers, returning is motivated by more than just economic reasons. Therefore, discussing the dynamic mechanism, status, characteristics, change trend and control of the return of migrant workers from the perspective of location selection can provide a useful reference not only for understanding the factors influencing population mobility and the laws governing the spatial mobility of migrant workers but also to help relevant government departments make decisions and guide the behaviors of returning rural populations. In addition, the contradictions and societal shifts emerging in this new era in China create problems of inconsistency and imbalance, including in regional development and income distribution between urban and rural areas. With the rapid development of industrialization and urbanization, the most obvious feature of rural decline is the loss of labor, which has brought about the hollowing out of the countryside and the aging of the agricultural population. From this point of view, migrant workers are the inevitable product of uneven economic development between urban and rural areas in Chinese society. In this case, studying the return of migrant workers has practical significance for the rural revitalization strategy and the practice of coordinated urban and rural development. Based on 51566 attribute data from a total of 437 questionnaires collected in 14 villages in Henan Province during the Spring Festival of 2019, this paper uses a binary logistic regression model to analyze the location of migrant

workers' return and seeks to answer several questions: 1) What characteristics of location selection can be observed among migrant workers who have returned in recent years? What is the change trend? 2) What are the main factors affecting these changes? 3) What useful insights or suggestions can this study provide for decision makers in reflux areas?

2. Literature Review

Chinese scholars turned their attention to the return of migrant workers in the 1990s with the publication of a series of related studies. A search of journals and articles on CNKI (<https://www.cnki.net>) with the keywords "migrant workers + return" and "migrant workers + returning home" yielded a total of 2494 results. The amount of research published peaked in 2009, concomitant with the return of a large number of migrant workers due to the impact of the global financial crisis in 2008. Enthusiasm subsequently waned, but since then, China's economy has grown slowly, and regional industrial restructuring has led to a continuous increase in the number of interregional returnees. In addition, the contradictions and societal shifts emerging in this new era in China create problems of inconsistency and imbalance, including in urban and rural regional development and income distribution. Scholars investigating these issues are therefore unable to ignore the large-scale migrant worker group, and they have positive significance for current rural development and population urbanization.

The research of domestic and foreign scholars on the return of migrant workers involves many disciplines, including sociology, demography, economics, management, and geography. Most domestic scholars discuss the phenomenon of migrant workers' return using push-pull theory [3, 4], Todaro's population mobility model [5], dual economic theory [6, 7], new labor migration theory [8], social network theory, family life cycle theory [6], human capital theory and industrial transfer theory. By borrowing more or less from the analysis framework of the push-pull theory of labor migration, they adopt "push analysis" and "pull analysis" of return of migrant workers as the basic logical starting point. Under reflux-related theoretical analysis, the research on migrant workers' return focuses on motivations and mechanisms, scale and stage characteristics, and the impact on the return area and work sites and on the economy and society as a whole. It also focuses on the occupation and location selection for the reemployment and entrepreneurship of migrant workers after returning, the value realization of migrant workers' return, and the problems and countermeasures of returning migrant workers. The return of migrant workers is generally defined as the migration of migrant workers who return, for various reasons, to their hometowns within the county to work in agriculture, as employees or as entrepreneurs for more than half a year or who no longer intend to work outside for the foreseeable future.

Some scholars have conducted research on issues such as

the willingness of migrant workers to return to their hometowns, the factors influencing the return decision, the impact of the return decision, and the return of entrepreneurial behavior from an economic perspective. In terms of the motives and influencing factors of the return of migrant workers, the financial crisis had a considerable impact on the employment of migrant workers, causing wages to fall and so on. For example, Zhao (2009), based on sample survey data from migrant workers returning to their hometowns in Jilin Province and micro-econometric analysis, found that the financial crisis increased the return probability of migrant workers by 40.46% and that the return probability of migrant workers in the construction and manufacturing industries was higher than that in others [9]. Migration distance has a positive impact on the return of migrant workers, but years of work, income and education level have a negative impact. Xiao et al. (2010) used the CES economic growth model to conduct empirical analysis and found that urban output levels, urban wage levels, capital prices, rural income, the cost to rural labor to work outside, and the total amount of urban unemployed labor were the main factors affecting the return of migrant workers [10]. Liu (2006) argued that there is theoretically an unlimited supply of rural surplus labor. Some foreign companies and individual private enterprises leverage the unlimited availability of cheap labor and to increase labor surplus value, which objectively results in the return of labor to the countryside [11].

Regarding the entrepreneurial willingness of returning migrant workers, Shi et al. (2010) found that returning migrant workers who were engaged in processing and manufacturing or self-employed or participated in skills training had stronger entrepreneurial willingness when they went to work [12]. Zhang (2018) used game equilibrium and the double-boundary inquiry method to conduct empirical analysis and showed that compared with entrepreneurial subsidies, entrepreneurial small loans provide greater incentives for migrant workers to start a business [13]. Age, education level, arable land area and other factors show intergenerational differences in their influence on entrepreneurial willingness, and the entrepreneurial willingness of the older generation is more significantly affected by age and cultivated land area. Most returning migrant workers are willing to start entrepreneurial activities within the county, and their entrepreneurial industry choice and form preferences are geographically stratified. In terms of the return effect, Jin (2009) suggested that the return of migrant workers is beneficial to the transformation of China's dual economic structure and promotes the development of agricultural modernization through the division of labor and specialization [14]. Through research, Liu et al. (2018) found that different groups of returning migrant workers have different characteristics, and external conditions such as the level of social and economic development differ by region. There are also differences in the employment of returning migrant workers: the western region absorbs returning migrant workers through the development of modern agriculture, the eastern region has increased employment

opportunities through the development of rural e-commerce, and the eastern and western regions have carefully considered that tourism resources may create employment opportunities for returning migrant workers [15].

Other scholars have studied the relationship between social security and the willingness to return of migrant workers, the challenges to the urbanization of migrant workers posed by the household registration system, and the relationship between social networks and social capital and migrant workers' return to employment and entrepreneurship from a sociological perspective. Shi et al. (2017) claim that the lack of long-term urban security is an important factor leading to the return of migrant workers [16]. Children's education, social welfare, housing security, and employment services, which represent urban public services, have a "blocking" effect on the return of migrant workers and a significant impact on the willingness of migrant workers to return in the long term, and urban social security has a significant positive impact on the urbanization of migrant workers. Household registration is the most prominent institutional obstacle affecting the flow into and out of urban and rural areas in China. It not only has a general impact on push and pull but also makes push and pull forces ineffective. Under the household registration system, migrant workers are discriminated against for their "not urban" status, which promotes the continuous "return" of migrant workers. Social networks have an important impact on migrant workers; whether they are working abroad or returning, they rely on their original social network to effectively avoid risks, reduce costs, and gain a sense of security and trust. A survey found that successful migrant workers who returned to their hometowns to start their own businesses attracted many of their friends and fellow villagers who worked abroad to return and start businesses. Moreover, the return of migrant workers is of great significance for improving family education and solving the problem of youth education.

The research from the perspective of geography mainly analyzes the spatial characteristics and influencing factors of the return of migrant workers in different locations. In terms of location characteristics, Gao et al. (2017) reported that the village, town and county are the main locations that interprovincial migrant workers can choose to return to [17]. It is the town or county and not their current city or another city that migrant workers prefer to return to in order to start a business. Zhang et al. (2017) noted that some factors significantly affect the motivation of migrant workers to take opportunities to start a business [18]. These factors include the topography of the hometown, the distance from the county, the distance from the township, the enthusiasm of residents in the hometown, and the support of the government. Gao et al. (2017) stated that the flow and return of migrant workers are actually based on their location selection and change in space, which depends on the stickiness of different locations. If local stickiness increases, migrant workers will choose to work and live locally, entailing return to the local area [17].

Research suggests that the household registration system,

the personal factors of migrant workers, family factors, economic policies, social security, human capital, employment opportunities, and social networks are important factors affecting the return of migrant workers. It can also be seen that migrant workers' return decision does not depend on a single factor but on a combination of various factors. The flow of migrant workers has an important impact on social and economic development and stability, including in terms of social culture, political life, and legal construction. Each research field has its own disciplinary advantages, with research being conducted at the national and social macro levels, on regional and provincial scales, and at the micro level on individual migrant workers. This research gives full play to different fields' respective disciplinary strengths, allowing various opinions and suggestions for policy formulation to be proffered based on many enlightening and innovative conclusions; however, there are also differences of opinion.

There are still many deficiencies in the research on the return of Chinese migrant workers. First, it is mostly confined to a macro perspective, and there is a lack of research on the medium and micro scales; in particular, the research on individual migrant workers needs to be deepened. Second, there is a lack of research on the formulation of specific policy, including a lack of detailed research on specific policy details regarding how to integrate the return of migrant workers with rural revitalization and the new urbanization. This makes it difficult to apply policy research in practice, leading to inefficiencies in solving practical problems.

Most of the above results were obtained on the basis of questionnaires and statistical data and provide an important foundation for this article. However, there are few studies on location analysis. This article will discuss this phenomenon mainly based on the location distribution, location characteristics

and influencing factors of the return of migrant workers.

3. Data Source, Region Selection and Research Sample Overview

3.1. Data Source

The data used in this study come from a survey of returning migrant workers organized by the author. The survey assessed the situation of migrant workers and their families, the location and type of work, the reason for returning, and the choice of return location. A household questionnaire survey of migrant workers was used. Fifteen investigators were selected from among the undergraduates enrolled in the School of Resources and Environment of Henan University of Economics and Law. The 15 selected investigators were given uniform training before the investigation, and the investigation was conducted during the Spring Festival of 2019 (January 22-March 5). There are 14 villages in this survey, involving 10 prefecture-level cities in Henan Province, and the sampling took into account factors such as topography, location, economic development level, and the number of migrant workers. Basically, the sample is representative of the overall situation of returning migrant workers in Henan Province because the distribution of these villages in Henan Province is relatively scattered. The author screened the questionnaires after the investigation, removed individual invalid questionnaires and counted the valid questionnaires. The paper questionnaire answer data were entered into Excel 2010 to form a database of migrant workers' return location containing $437 \times 118 = 51566$ observations (437 households, 118 attributes per household).

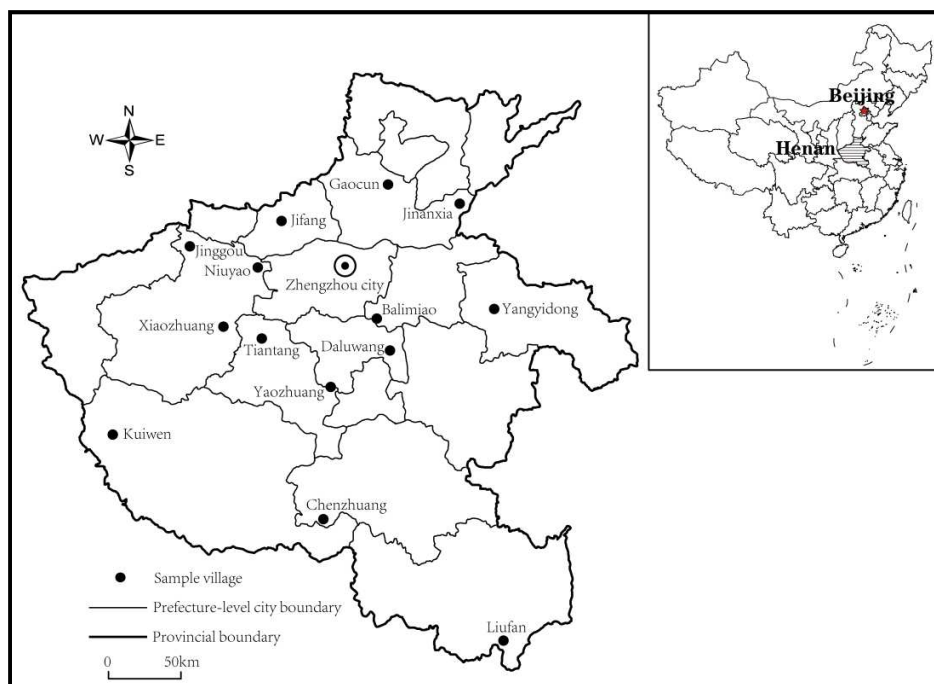


Figure 1. Map showing the distribution of the sample villages.

3.2. Study Area Selection

This article takes Henan Province as an example (Figure 1). First, it is the birthplace of Chinese civilization, and its superior geographical environment has long made it a populous province. In 2017, the permanent population of Henan Province was 95.591 million, ranking third in the country. The total population of Guangdong Province, the most populous in China, largely benefits from population input, while Henan Province experiences the opposite: it has long been the most important labor export area in China, and migrant workers generally account for approximately 10% of inhabitants. Second, Henan Province is centrally located, and the flow of migrant workers is diverse. It has obvious advantages in terms of transportation because it is located in the hinterland of the Central Plains, which is an important transportation hub connecting the east to the west and the north to the south. It has a comprehensive transportation network that combines railways, highways, and aviation and has convenient and rapid external transportation. Henan Province is relatively close to the main labor markets in China, and migrant workers can use its modern, rapid transportation network to reach other areas of the country, including the coastal areas, western regions, and surrounding areas that have become destinations for migrant workers in Henan Province. In summary, Henan Province is strongly representative of China because of the number and wide distribution of migrant workers.

3.3. Sample Overview

A total of 437 respondents were surveyed, and their characteristics in terms of age, gender, marital status, education level, employment status after returning, family and dependents are as follows. Returning migrant workers are typically 21-50 years old with strong work ability. This latter group accounts for 76.9% of respondents, and the proportion of returnees aged 21-40 among them is 50.1%, which reflects a trend of younger returnees. Most returning migrant workers are male (accounting for 55.1%), and the proportion of women is 44.9%, which shows that the proportion of men and women is roughly equivalent, with only a small difference. Junior high school is the main educational background, accounting for 53.3%, followed by high school and elementary school, and there are few respondents who are illiterate or have a college degree or above. The majority are married, accounting for 88.6%.

The 14 sample villages in this survey (Figure 1) are divided according to different indicators and were selected to create a relatively balanced sample that reflects the basic characteristics of the various types of villages in Henan Province. In terms of topography, there are 3 sample villages in mountainous areas, 4 sample villages in the hills, and 7 sample villages in the plains. In terms of suburban areas¹,

there are 3 sample villages in the suburbs, 6 sample villages in the middle suburbs, and 5 sample villages in the outer suburbs. In terms of economic development level, there are 5 sample villages with a low development level, 5 sample villages with a medium development level and 4 sample villages with a high development level. There are approximately 25 to 35 sample migrant workers in each sample village, and the distribution of migrant workers is relatively balanced among the various types and roughly matches the spatial scope and the number of the various features, such as the topography and the level of economic development in the suburbs.

4. Temporal and Spatial Characteristics of Reflux Location

4.1. Spatial Characteristics

4.1.1. Administrative Space Characteristics

Reflux is defined as a significant reduction in the working distance and is generally a hierarchical decrease, such as a return from outside the province to the province or from another city to the city. According to the characteristics of administrative space, the return location can be divided into 5 categories: local village, township outside of local village, county outside of local township, city outside of local county, and province outside of local city. The Table 1 shows that the return location of migrant workers is mainly the local village or the county outside of the local township, followed by the county outside of the local village. Two hundred twenty people returned to a local village, accounting for 50.34% of the total sample, and 107 people returned to the county outside of the local township, accounting for 24.49%; the total proportion of the two was 74.83%. Eighty-four people returned to the township outside of the local village, accounting for 19.22%. The three items above account for 88.78% of the total, indicating that the vast majority of returnees returned to within the county. Only 15 people returned to the city outside of the local county, and 11 people returned to the province outside of the local city (Table 1). Therefore, returning to the county is the basic spatial feature of the return of migrant workers, and the return location is typically the local village or the county outside of the local township (usually the county).

Migrant workers who return to the local area mainly come from other cities and counties. The Table 2 shows that there are only 35 cases of returnees coming from outside the province, accounting for 8.01% of all returnees. Thus, returnees from other provinces are not the majority among migrant workers. Among the returnees, 171 people came from other cities, accounting for 39.13%, and 188 people came from other counties, accounting for 43.02%. The two

¹Note: The criteria for determining the location of the suburbs are as follows: "near suburbs" are areas less than 10 km away from the nearest county or city; "middle suburbs" are areas 10-30 km away; and "outskirts" are areas >30 km. The

following are the economic development level classification criteria: "low" means 15% below the average level; "medium" means $\pm 15\%$ around the average level; and "high" means 15% above the average level.

combined constitute 82.15%, which means that most returnees are migrant workers in other counties and provinces outside the cities, and there are fewer returnees from other towns and villages.

Table 1. Administrative spatial distribution of returnees.

Administrative unit of return	Number of people	Percent (%)	Cumulative percent (%)
Local village	220	50.34	50.34
Township outside of local village	84	19.22	69.56
County outside of local township	107	24.49	94.05
City outside of local county	15	3.43	97.48
Province outside of local city	11	2.52	100.00
Total	437	50.34	50.34

Table 2. Statistics on the source of the returnees.

Administrative space	Other province	Other city	Other county	Other town	Other village
Local village	2	100	86	18	14
Township outside of local village	10	23	40	11	
County outside of local township	9	36	62		
City outside of local county	3	12			
Province outside of local city	11				
Total	35	171	188	29	14

In fact, the growth rate of local migrant workers has exceeded the growth rate of migrant workers from other places since 2011, which means that the local area has begun to become an important option for migrant workers. In terms of absolute numbers, nearly 1 million migrant workers have returned to their hometowns to work every year in recent years. The returnees shown in Table 2 are mainly from other counties and cities in Henan Province, which also reflects that most changes in the location of migrant workers occur within the province.

4.1.2. Spatial Characteristics of Urban and Rural Areas

The most common return locations in urban areas are provincial cities, prefecture-level cities, and county cities, and those in rural areas are township centers and villages. The statistical results show that 0 people returned to provincial cities, 11 people returned to prefecture-level cities, and 122 people returned to county cities. The total number of people returning from the three urban areas above is 133, accounting for 30.43% (Table 3). The overall trend of migrant worker mobility in China since the reform and opening up has been rural-urban migration because cities are

where the secondary and tertiary industries are concentrated and therefore offer more jobs and jobs with higher salaries. However, with the development of the county economy, this transfer momentum has slowed after 40 years, and rural areas have become an important job site option for migrant workers. Regarding the urban and rural spatial distribution of returnees, rural areas have become the most important place of return. According to the survey statistics, 84 people returned to township government locations, 220 people returned to rural areas, and the above two together accounted for 69.57% of the total returnees. Although some of those returning to the villages are retired and disabled, a considerable number of returnees remain engaged in nonagricultural and agricultural industries after returning to the countryside. In addition, township centers also accept many returnees. Overall, the counties and small towns near the villages have become the main locations for the reemployment of migrant workers, and although the general trend of rural-urban migration has not changed, the intensity has dropped significantly.

Table 3. Distribution returnees in urban and rural areas.

Type	Number of people (persons)	Ratio (%)	Cumulative ratio (%)
Provincial capital	0	0	0
Prefecture-level city	11	2.52	2.52
County seat	122	27.92	30.43
Township center	84	19.22	49.66
Village	220	50.34	100.00

The vast majority of migrant workers who returned to outside the county chose to work in urban areas, including 11 who chose to work in prefecture-level cities and 15 in county towns, and most worked in a nonagricultural industry. Thus, a worker engaged in agriculture can only pursue this occupation locally, but nonagricultural work can be done in urban areas or in rural areas. Thus, migrant workers mainly go to cities to engage in nonagricultural work, and it is rare to choose rural areas to engage in agricultural work, because

agriculture can be done in the local village.

4.2. Time Characteristics of Reflux

Reflux occurred primarily in the last 5 years, and the development trend is intensifying. Return and outflow are the two basic forms of labor mobility. Generally, migrant workers will choose to return when they cannot obtain a higher income or cannot find a job; otherwise, they will

choose not to return. According to survey statistics, there were only 11 returnees before 2000, accounting for 2.5% of the surveyed persons, and there were also few returnees from 2001 to 2008, with only 23, an average of less than 4 people per year. The large-scale repatriation began in 2009. The global financial turmoil in 2008 had a major impact on the manufacturing industry in coastal areas, where large-scale layoffs caused many migrant workers to choose to return due to the reduced availability of work. However, in this survey, the number of returnees was not pronounced in the two years after the financial crisis, as the average was 12.5 people per year. Although there was a significant increase from 2001 to 2008, it was still within a relatively small range. The situation has been quite different since 2011, and the number of returnees has increased significantly, at 18.5 people per year from 2011 to 2012, 32.5 people per year from 2013 to 2014, and 94.5 people per year from 2015 to 2016, peaking at 82 people per year in 2017. Generally, the reflux trend has intensified in the past five years, and return seems to have become an important trend in the mobility of migrant workers with the continuous development of the county economy.

5. Analysis of Influencing Factors

5.1. Variable Design

The return of migrant workers is an important phenomenon that accompanies the flow of migrant workers and is the result of a combination of many factors. From a micro perspective, the key factors that determine workers' return include job availability in the local area, job stability and wage income. The individual characteristics and family

characteristics of migrant workers affect their own mobility and job satisfaction, which is an important influencing factor in the return decision. Both basic factors (such as type of work, income, distance) and the magnitude of the difference in expected migrant status are important references in migrant workers' decision making process. The village, as the flow source and return sink of migrant workers, plays an important role in income, housework management, perceived satisfaction, etc., which directly affects the decision-making regarding returning. Therefore, this article analyses four types of factors based on a micro perspective, including individual factors, family factors, village factors, and labor factors. In previous empirical research on the decision-making factors for the return of rural migrant workers, the independent variables also focus on the age, gender, education level, marital status, nature of household registration, cultivated area per person, migration time, relative income level and other factors of the migrants [19, 20]. In addition, the role of family characteristics in the return of migrant workers is also of interest to sociologists and economists [21, 22]. Among the various influencing factors, individual factors include the gender, age, marital status, years of education and other factors of migrant workers; family factors include population dependency ratio, family generation, total population, and amount of good land; and community factors include topography, distance from the city, relative position in the village and other factors. The work factors include the number of years worked, the number of places worked, purchasing plans, skills and other factors. The assignment and description of these impact factors are shown in Table 4.

Table 4. Variable design.

Index	Factor	Unit or assignment	Description of factor
Personal factor	Sex	Male 1, female 0	The gender of the respondent
	Age	Years	Age of the respondent
	Education	Years	Years of education the respondent has
	Marital status	Married 1, unmarried 0	The marital status of the respondent (married, unmarried)
Work factor	Years worked	Years	The number of years from the time the respondent started working to the time of the survey
	Number of work sites	place	Number of surveyed sites in 10 years
	Plan to purchase house	Yes 1, No 0	Whether respondent has recently planned to purchase a house (yes, no)
	Skill	Yes 1, No 0	Skills of the respondent (yes, no)
Family factor	Population dependency ratio	Actual value	The ratio of the dependent population to the labor force
	Family generation number	Generation or generation	The generation number of the respondent's family
	Total population	person	The total population of the surveyed household
	Amount of cultivated land	0.0667 hm ²	The amount of good land in the surveyed household
Community factor	Terrain	Plains 1, Hills 2, Mountain 3	The terrain of the village where the respondent is located
	Distance from city	km	The distance between the respondent's home and the county seat or the nearest city
	Relative position in the village	Poor 1, Normal 2, Good 3	The relative economic level of the surveyed family in the village

5.2. Model Calculation

This article uses a binary logistic model for calculation and analysis. The dependent variable is defined as whether the

return location is a local county. If it is, the value is 1; otherwise, it is 0. The analysis software was SPSS 19.0, and the maximum likelihood method was used to estimate the model parameters. The calculation results are shown in Table

5. After the correlation analysis, there was no strong autocorrelation between the variables in the model. The model reached the level of significance (sig.=0.0000), the

model Pseudo R2: Cox and Snell value was 0.4378, and the Nagelkerke R2 was 0.5312; thus, requirements for analysis were met.

Table 5. Model calculation results.

Factor	Factor	B	Standard error	Wald statistics	Sig	Exp (B)
Personal factors	Sex	-0.384	0.235	2.681	0.102	0.681
	Age	-0.017	0.012	1.893	0.169	0.983
	Education	0.139	0.051	7.368	0.007	1.149
	Marital status	-0.173	0.400	0.187	0.666	0.841
	Years worked	0.028	0.015	3.517	0.061	1.029
Employment factors	Number of work sites	0.045	0.022	4.022	0.045	1.046
	Plan to purchase house	0.370	0.290	1.634	0.201	1.448
	Skill	0.677	0.229	8.763	0.003	1.968
	Population dependency ratio	0.052	0.114	0.211	0.646	1.054
Family factors	Family generations	-0.240	0.256	0.874	0.100	0.787
	Total population	0.042	0.108	0.151	0.697	1.043
	Amount of cultivated land	0.053	0.042	1.588	0.208	1.055
	Terrain	-0.236	0.295	0.637	0.425	0.790
Community factor	Distance from city	0.015	0.007	5.010	0.025	1.015
	Relative position in the village	0.519	0.298	3.037	0.081	1.680
	Constant	-2.199	1.058	4.319	0.038	0.111

Note: The significance level standard has been relaxed to 0.1 because this is a sociological study.

5.3. Analysis of the Calculation Results

First, in terms of personal factors, gender, age, and marital status do not have a significant impact on the choice of return location, but the number of years of education does. The factor of years of education passed the 1% significance test, and the return coefficient is positive, indicating that migrant workers with more years of education tend to return to the local county to work. This phenomenon shows that the number of years of education affects the return direction of migrant workers. The reason for this phenomenon is that education level affects individuals' position and evaluation of themselves as migrant workers. Migrant workers with many years of education have greater expectations for themselves and what they can achieve, so they are more inclined to return to a place with more employment opportunities and high compensation. With the social background being constant, returning migrant workers with many years of education have more influence due to their education and culture, exhibit greater pursuit of cultural and other activities, have broader and deeper social circles, and have more survival skills and higher overall quality than returning migrant workers with fewer years of education, so they are more likely to be hired when looking for jobs locally. In addition, the policy of local governments on the introduction of highly educated talent has facilitated the return of highly educated workers and has provided guidance and financial support to migrant workers returning to their hometowns to start businesses. In addition, local governments have increased infrastructure construction and financial investment. Transportation facilities, rural and urban roads, and water, electricity, communications, and other infrastructure and supporting facilities have been completed, all of which attract migrant workers with a high school degree or above return to the local area. Extrapolation and internal forces have greatly increased the probability of migrant workers returning to

work in local counties. In short, workers are inclined to return to work in local counties to meet personal needs or family needs.

Second, in terms of labor factors, skills, years of work, and number of labor sites reached a significant level, with positive regression coefficients. The regression results show that migrant workers with survival skills are more likely to stay in the county to work than unskilled migrant workers. Migrant workers have greatly improved and enriched their skills after many years of work, and some returnees return to the local county town hoping to continue to earn a living with the skills they have already mastered or to obtain economic benefits and better development opportunities than before. Under normal circumstances, the comprehensive quality of skilled return migrant workers is higher than that of migrant workers who do not have survival skills, and when they return to the local area to continue working, the personal abilities that they fostered when working outside often make them better prepared to work locally. Some returning migrant workers who have mastered certain skills have even more room for development at work and obtain higher economic income in local counties than those who return to other places in the absence of interference from other factors. This phenomenon is even more pronounced when the local economy is developing well. The number of years worked and number of places worked are related to the skill factor. The greater the number of years worked, the greater the number of sites worked and the more accumulated experience gained, the better the means of earning a living and skills a migrant worker will have. Such experience means that human capital has been further improved, which leads to an increase in the possibility of working in the county.

Third, in terms of family factors, the family size passed the significance test, and the regression coefficient was negative,

indicating a significant negative impact on the return of migrant workers to the county. The regression results show that the larger the family generation number is, the lower the possibility of returning to work in the local county town, while the smaller the family generation number, the greater the possibility of returning to work in the local county town. This is because the larger the family generation is, the more dispersed the family responsibilities are, while the smaller the family generation is, the greater the family responsibilities. Families with larger family generations can share family pressures with each other, and migrant workers have less responsibility to care for the family and manage family and personal affairs, so they can choose to work for a long time in cities with more job opportunities and jobs with higher compensation. This means that the smaller the family burden of migrant workers is, the greater the possibility of returning to work in other places. This phenomenon is more prominent when the economic development of the hometown lags behind that of neighboring cities. The migrant workers with small family generations have to bear more family responsibilities, especially if they need to support children or elderly parents, so they are more likely to return to work in local counties.

Fourth, in terms of the community factors, the distance from the city and the relative position in the village passed the significance test at 5% and 10%, respectively, and both of the above regression coefficients were positive. The farther the distance from the county and the nearest city, the greater the possibility of staying in the local county to work. The reason is that workers from villages farther away from the county spend more time traveling and have more setbacks when returning to the hometown during the work period. This phenomenon that migrant workers tend to continue working in local counties after returning to care for family is more obvious when the local economy is good, as this allows returning migrant workers to meet their family's economic and emotional needs. The better the family's relative position in the village, the greater the probability of returning to work in the local county. In the relatively underdeveloped society in rural areas, the better one's relative position in the village is, the better one's general status and power, the stronger one's work ability, the more social resources one has, and the wider one's employment path. Returning migrant workers with good relative positions in the village also tend to work in cities that have better economic, educational, cultural and other infrastructure than rural and small townships. This phenomenon is more obvious when the local county economy is well developed, especially for returning migrant workers whose children are studying at local county level and who have a good relative position in the village, as they have more financial capital to engage in business activities in the local area. The happiness index of migrant workers returning to the local area is much higher than that of migrant workers returning to other places, causing returning migrant workers to tend to return to work in local counties. The results of the regression analysis of the terrain factors, with plains as the reference, show that the terrain did not pass the

significance test, indicating that the terrain has little influence on the return location of migrant workers. This is because the country has vigorously developed the infrastructure in recent years and the transportation facilities are essentially complete, which greatly shortens the time and space distance between home and the work sites of migrant workers. The safety of travel has been greatly improved, tools are convenient and affordable, and some poverty alleviation policies formulated and implemented by the state in recent years have helped agricultural workers overcome poverty. These factors all contribute to the topography not having a significant impact on the return location of migrant workers.

6. Conclusion and Discussion

6.1. Discussion

In China, after nearly 30 years of migration from rural to urban areas, migrant workers have begun to return. Population movement is mainly related to economic factors, and people have pursued economic interests, leading to large-scale rural-urban flows. However, population mobility is also affected by family factors. People often choose to work near their hometowns when jobs are available because they can then care for family members, and such jobs have promoted returns to rural areas. This trend has continually grown with the balanced development of the regional economy in China. In this context, exploring the choice of work location after migrant workers return to rural areas is of important practical significance for understanding population flows and promoting the development of local urbanization. In this context, we conducted field surveys in 14 villages in Henan Province, a province with large population flows, and on this basis, we studied the location selection preferences of returning migrant workers, as well as the corresponding influential factors. We found that returning to a certain county and village is the main objective of returnees. Taking care of family, low net income in urban areas and a decline in physical fitness were the main reasons for returns.

The academic community began to study the return of migrant workers at the beginning of this century. Due to the Asian financial crisis in 2008, a large number of migrant workers in China were forced to return to their hometowns. However, the return of migrant workers in recent years has mainly been related to improved economic development in central and western China; notably, farmers do not need to travel long distances to earn money to support their families. Some studies have suggested the older a migrant worker is and the longer the migration distance is, the greater the probability of returning; additionally, the lower the income of a migrant worker is, the greater the probability of them returning [9]. In terms of age, our findings are similar to those of Zhao Liang; that is, the older an individual is, the easier it is to return. The same is true for income; that is, the lower an external income is for a given worker, the greater the probability of return. These results are based on economic, and the main driving factor of population flows is the

economy. When the physical fitness of migrant workers declines and income declines, returns will inevitably occur. In China, cities cannot provide migrant workers with improved living security or social security. Similar conclusions were obtained by Xiao Donghua *et al.* and Liu Zheng *et al.*; they suggested that the increase in urban unemployment and the use of unlimited cheap labor in cities have objectively promoted the return of migrant workers because these migrant workers cannot earn a reasonable income in urban areas. If an individual can find a job near their hometown, a return will inevitably occur. Additionally, migrant workers are earning money only to subsidize their families and are not truly integrated into city life. The research results of Zhang Tian *et al.* indicate that the main urban area in a county is the second choice for migrant workers to return to, and the first choice is their hometown village. This result is similar to our research results. Migrant workers generally return to their hometown village or to the main town in the corresponding county; other small towns near their hometowns are not very attractive. However, Zhang Tian focused on the settlement locations of returning migrant workers. Our research mainly focuses on the work locations of these workers. Although the two approaches are similar, there are differences between work and living choices, especially in the current rural areas of China. In the case of very convenient transportation, many residential and work areas are separated. The conclusions of another earlier study [17] are similar to the conclusions of this paper; the study also suggests that villages and counties are the main return locations for interprovincial migrant workers, and there were relatively few migrant workers in cities in the studied province. However, this early paper also noted that townships are also important return locations to some extent; in our research, we did not find that there are many returnees to townships. Notably, the interprovincial movement of migrant workers was the subject of the previous study, and this study included interprovincial migration and intraprovincial migration. Moreover, the sample sizes were different. In addition to the abovementioned research results, few other studies have focused on migrant return locations. Generally, the return of migrant workers from the city to the countryside was broadly discussed, and specific microlocation selection after a return was not considered.

The continuous increase in the return of migrant workers has led to increased interest in the return problem. However, few scholars have fully considered the selection of microlocations after migrant return. This article uses first-hand field survey data to study the return locations of migrant workers. Migrant workers working in different cities and counties mainly return to their home county, especially their hometown villages. Most village returns are passive returns, and county returns are generally active returns, especially for entrepreneurs. This finding indicates that the county seat plays an important role in absorbing local migrant workers. The county seat provides the basic functions of a city, and various public service functions there are relatively comprehensive. County seats should be used as

a major component of local urbanization. Our research also found that from the perspective of migrant workers, returning to take care of the needs of other family members is common, and other returns are due to a decline in income, poor physical fitness, and job opportunities. Moreover, migration from urban to rural areas has occurred in response to the increase in local job opportunities. The combined effect of out-of-town job promotion and local tension led to the occurrence of population backflow. From the model calculation results, the significant factors that influence migration patterns are the number of years of education, skills, the amount of work experience, the number of work sites, the number of family generations in a given area, distance from a city, the number of relatives who live in the same village, etc. Overall, working locally, earning income and taking care of family are the main factors influencing location selection among migrant workers. The return behavior of migrant workers is a response to the labor market and regional economic development.

The return of migrant workers is an important trend in China's major labor flows, and the return location is the main focus of return decision making. Related research is of important practical and theoretical significance, but the current research results are not comprehensive. Based on first-hand data from field surveys, this article conducts an in-depth study of the locations of migrant workers' returns. However, due to the small number of research samples, the conclusions of this research are only suitable for the sample area. Whether the proposed approach is suitable for similar regions or other regions must be further evaluated. Obtaining additional research results in similar regions will be a focus of future work, and it would be beneficial to compare results and potentially combine methods. Additionally, if a large-scale survey of returning migrant workers were to be performed in the future, it would help expand research on the studied issues. In addition, if regional socioeconomic, environmental and policy factors were considered, the research results would be more comprehensive.

6.2. Conclusion

The return of migrant workers is an important trend in the flow of labor in China, and the location of the return determines the direction of the return and affects the choice of settlement. Thus, understanding the laws governing the location of return is of great value to rural revitalization and the coordinated development of urban and rural areas. Based on first-hand data from field surveys, this paper uses statistical analysis and binary logistic analysis to analyze the characteristics of the return location and the factors affecting location selection. The following conclusions can be drawn.

First, the basic spatial feature of the return of migrant workers is returning to the local county, followed by the local village and the county outside the township, and workers mainly worked in other cities and counties before returning. Counties and small towns near the village have become the main locations for returning migrant workers to find new employment, and although the general trend of rural-urban

migration has not changed, the intensity has dropped significantly. Those who have returned to outside the county mainly move to cities to engage in nonagricultural work, and they rarely choose rural areas to engage in agricultural work. The main reason for return is to take care of the family, followed by old age, difficulty finding a job, low wages, high costs, poor health, poor physical condition, etc. In addition, good employment conditions in the hometown also have a certain impact. The push from other places and the pull from the local area work together on migrant workers, eventually creating a return pattern.

Second, most returns have occurred in the last 5 years, and the trend is intensifying. Return and outflow are the two basic forms of labor mobility. Generally, migrant workers will choose to return when they cannot obtain a higher income or cannot find a job; otherwise, they will not choose to return. It is predicted that the trend of return will continue to strengthen in the future as the county economy continues to develop.

Third, seven factors, namely, years of education, skills, years worked, number of work sites, family size, distance from the city, and relative position in the village, reached significance in the regression model of the choice to return to the county. The other coefficients were all positive except for the family size coefficient, which was negative, indicating that those with more years of education, skills, more years worked, a larger number of work sites, smaller family generations, greater distance from the city, and higher relative position in the village have a higher probability of returning to the county. This shows that those with rich experience and a certain amount of human capital have a higher probability of returning to the county, and those with a larger family burden are more likely to choose the local county. Due to the low level of economic development of villages and the improvement of traffic conditions, those who are far away from the county have a higher probability of returning to the county. Employment, income, and family factors are the main mechanisms underlying migrant workers' choice of return location.

Acknowledgements

This work is supported by National Natural Science Foundation of China (No. 41771190, 41771158, 41771124)

References

- [1] National Bureau of Statistics of China (2010). Migrant workers monitoring report: 2009 Migrant workers monitoring survey report. 2010-03-19. http://www.stats.gov.cn/zjtj/ztfx/fxbg/201003/t20100319_16135.html.
- [2] National Bureau of Statistics of China (2018). Migrant workers monitoring report: 2017 Migrant workers monitoring survey report. 2018-04-27. http://www.stats.gov.cn/tjsj/zxfb/201804/t20180427_1596389.html
- [3] Bogue D J. Internal migration (1959) [M]//Hauser D, The study of population: An inventory appraisal. Chicago: University of Chicago Press.
- [4] Lee E S, A theory of migration (1966) [J]. *Demography*, 3 (1): 47-57.
- [5] Todaro M P (1976). Urban job expansion, induced migration and rising unemployment: A formulation and simplified empirical test for LDCs [J]. *Journal of Development Economics*, 3 (3): 211-225.
- [6] Cassarino J P (2004). Theorizing return migration: The conceptual approach to return migrants revisited [J]. *Social Science Electronic Publishing*, 6 (2): 21-54.
- [7] Lewis J R, Williams A W (1986). The economic impact of return migration in central Portugal [M]//King R. Return migration & regional economic problems. London: Croom Helm, 100-128.
- [8] Piore M J (1979). Birds of passage: Migrant labor and industrial societies [M]. New York: Cambridge University Press.
- [9] Zhao Liang, Zhang Shiwei, Fan Lizhuang (2009). Analysis of the return of migrant workers in the financial crisis environment [J]. *Jiangxi Social Sciences*, (8): 227-229.
- [10] Xiao Donghua, Yao Huiyuan (2010). Research on the return of migrant workers in the new era [J]. *Reform and Strategy*, 26 (1): 165-169.
- [11] Liu Zheng (2006). The reality paradox of the unlimited supply of labor—Analysis of the causes and effects of "migrant workers returning" [J]. *Journal of Tsinghua University: Philosophy and Social Sciences Edition*, (3): 125-129.
- [12] Shi Zhilei, Tan Yu, Wu Haitao (2010). Analysis of entrepreneurial behavior and willingness of returning rural migrant workers [J]. *China Rural Observation*, (5): 25-37.
- [13] Zhang Ruojin (2018). Comparative study on the effectiveness of entrepreneurship subsidies and small entrepreneurship loan policies on the incentives of returning migrant workers to entrepreneurship—an empirical analysis of double boundary inquiry [J]. *Agricultural Technology Economy*, (2): 88-103.
- [14] Jin Sha (2009). The return of migrant workers and the conversion of China's dual economic structure [J]. *Economic Aspects*, (1): 77-79.
- [15] Liu Yuxia, Chen Keyi (2018). Analysis of the differences in the employment of returned migrant workers from the perspective of rural revitalization—Based on the investigation in the rural areas of Zhejiang and Guizhou of China [J]. *Exploration*, (4): 135-142.
- [16] Shi Zhilei, Zhu Mingbao (2017). Research on social protection and citizenization of migrant workers [J]. *Issues of Agricultural Economics*, (11): 77-89.
- [17] Gao Genghe, Zeng Wenfeng, Liu Mingyue (2017). The location of inter-provincial migration of migrant workers and their influencing factors: A case study of 12 villages in Henan Province of China [J]. *Economic Geography*, 37 (6): 151-155.
- [18] Zhang Tian, Zhu Yu, Lin Liyue (2017). Returning migrant workers' residential location selection under the background of in-situ urbanization—Taking Yongcheng City, Henan Province of China as an example [J]. *Economic Geography*, (4): 84-91.

- [19] Hu Feng, Shi Yupeng (2013). The selectivity of migrant workers' return and non-agricultural employment: Evidence from Hubei of China [J]. *Journal of Demography*, 35 (2): 71-80.
- [20] Ding Yueya (2012). A Comment on the theoretical model of the research on the return of immigration in the era of globalization [J]. *Journal of Hebei University*, (1): 139-142.
- [21] Zhang Huijin, Xiao Hongen (2006). Deep thoughts on the backflow of migrant workers [J]. *Rural Economy*, (8): 102-104.
- [22] Dustmann C (2003). Children and return migration [J]. *Journal of Population Economics*, 16 (4): 815-830.